Neuropsychopharmacology to the next generation: New wave from Asia

Chair: Kazutaka Ikeda (Tokyo Metropolitan Institute of Medical Science)
Vice Chairs: Kazutaka Shimoda (Dokkyo Medical University)    Toshiyuki Someya (Niigata University)
Alliance Head: Hiroyuki Uchida (Keio University)
Secretary: Shinya Kasai (Tokyo Metropolitan Institute of Medical Science)
Save the Date
2020 CINP World Congress
25-28 June 2020 | Taipei, Taiwan

Welcome Message from the President

On behalf of the Executive Committee of the International College of Neuropsychopharmacology (CINP), it is my pleasure to invite you to the 32nd CINP World Congress of Neuropsychopharmacology in Taipei, Taiwan in June 2020. This upcoming World Congress welcomes delegates from all over the globe to the beautiful city of Taipei to carry on the momentum of the previous World Congresses in Seoul and Vienna. Building on our previous efforts, we will expand our core mission of linking the advances in brain sciences to the alleviation of the distress and disabilities associated with neuropsychiatric disorders. With advances in neuroscience, this is an exciting time for the understanding of psychiatric pathophysiology and the 32nd World Congress will feature the most up-to-date research, diverse topics of interest, and educational sessions with leading experts.

We hope that you will be able to join us to advance the research and education of psychopharmacology.

Professor Siegfried Kasper
President of CINP (2018 – 2020)

Abstract Submissions
OPEN
1 November 2019
CLOSE
30 January 2020

For more information, please contact cinp2020@cinp.org www.cinp2020.org
6th Congress of
Asian College of Neuropsychopharmacology

Neuropsychopharmacology to the next generation:
New wave from Asia

October 11-13, 2019
Fukuoka, Japan

Fukuoka International Congress Center
Fukuoka Sun Palace Hotel & Hall

Chair: Kazutaka Ikeda (Tokyo Metropolitan Institute of Medical Science)
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Toshiyuki Someya (Niigata University)
Alliance Head: Hiroyuki Uchida (Keio University)
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Joint Annual Meetings

JSCNP
29th Annual Meeting of Japanese Society of Clinical Neuropsychopharmacology
Chair: Reiji Yoshimura
(University of Occupational and Environmental Health)

JSNP
49th Annual Meeting of Japanese Society of Neuropsychopharmacology
Chair: Hisatsugu Miyata
(Jikei University School of Medicine)

Host
Asian College of Neuropsychopharmacology (AsCNP)

Supporting Organizations
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Greetings

It is our great pleasure to organize the 6th Asian College of Neuropsychopharmacology (AsCNP) Congress that is held in Fukuoka, Japan, on October 11-13, 2019. The main theme of the congress is “Neuropsychopharmacology to the next generation: New wave from Asia.” Pharmacotherapy for the treatment of neuropsychiatric disorders should be developed further in Asia where robust economic expansion has occurred. Most medications for the treatment of central nervous system disorders have been developed for the European and American populations but are not always suitable for Asian populations. Medications should be developed specifically for Asians, including appropriate dosage and usage. The AsCNP2019 Congress seeks to advance neuropsychopharmacology to the next generation in Asia.

AsCNP was founded in 2008, based on the need to elucidate the mechanisms that underlie the effects of medications for the treatment of central nervous system disorders, develop new medications, and appropriately utilize such medications in Asia. The mission of AsCNP is to encourage research, facilitate the communication of ideas in converging disciplines of neuropsychopharmacology in Asia, develop pharmacotherapies for the treatment for psychiatric disorders, provide education and training opportunities, and empower patients and their families with scientific knowledge. The AsCNP Congress was convened in Kyoto in 2009, Seoul in 2011, Beijing in 2013, Taipei in 2015, and Bali in 2017. AsCNP currently has more than 3000 members.

The AsCNP2019 Congress will be held in conjunction with the annual meetings of the Japanese Society of Neuropsychopharmacology (JSNP) and Japanese Society of Clinical Neuropsychopharmacology (JSCNP). Other AsCNP member societies are also planning joint events at the AsCNP2019 Congress. Many scientists, clinicians, industry researchers, governmental officials, and invited world-renowned leaders will gather at the congress to advance neuropsychopharmacology in Asia.

We look forward to welcoming you in Fukuoka in 2019.

Kazutaka Ikeda
Chair, 2019 AsCNP Congress

Kazutaka Shimoda
Vice Chairs, 2019 AsCNP Congress

Toshiyuki Someya
Organizers of 6th Congress of Asian College of Neuropsychopharmacology (AsCNP2019)

Chair: Kazutaka Ikeda (Tokyo Metropolitan Institute of Medical Science)
Vice Chairs: Kazutaka Shimoda (Dokkyo Medical University)
Toshiyuki Someya (Niigata University)
Alliance Head: Hiroyuki Uchida (Keio University)
Secretary: Shinya Kasai (Tokyo Metropolitan Institute of Medical Science)

Organizing Committee Chair: Shigenobu Kanba (Kyushu University)
Organizing Committee Members:

Tatsuo Akechi (Nagoya City University)  Manabu Ikeda (Osaka University)
Satoshi Asakura (Hokkaido University)   Masashi Ikeda (Fujita Health University)
Masato Asanuma (Okayama University)    Toshiya Inada (Nagoya University)
Hazime Baba (Juntendo University)       Ataru Inagaki (Aoyama Gakuin University)
Won-Myong Bahk (The Catholic University of Korea, Korea)  Koki Inoue (Osaka City University)
Ya Mei Bai (National Yang-Ming University / Taipei Veterans General Hospital, Taiwan)  Takeshi Inoue (Tokyo Medical University)
Haruhiko Bito (The University of Tokyo)  Masako Iseki (Juntendo University)
Eric Yu Hai Chen (The University of Hong Kong, China)  Yashashi Ishida (University of Miyazaki)
Shigeru Chiba (Asahikawa Medical University)  Kumiko Ishige (Nihon University)
Lih-Chu Chiou (National Taiwan University, Taiwan)  Jun Ishigooka (Yoyogi Mental Clinic / Institute of CNS Pharmacology)
Yuan-Hwa Chou (Taipei Veterans General Hospital, Taiwan)  Takeshi Ishihara (Kawasaki Medical School)
Young-Chul Chung (Chonbuk National University Medical School, Korea)  Masanari Itokawa (Tokyo Metropolitan Institute of Medical Science)
Brian Dean (Swinburne University, Australia)  Akira Iwanami (Showa University)
Nagafumi Doi (Ibaraki Prefectural Medical Center of Psychiatry)  Katsunori Iwasaki (Fukuoka University)
Ken-ichi Fukuda (Tokyo Dental Collage)  Nakao Iwata (Fujita Health University)
Masato Fukuda (Gunma University)  Nobuhisa Iwata (Nagasaki University)
Kohji Fukunaga (Tohoku University)  Masaomi Iyo (Chiba University)
Toshiaki A. Furukawa (Kyoto University)  Hiroshi Kadotani (Shiga University of Medical Science)
Tomoyuki Furuyashiki (Kobe University)  Mitsuhiro Kamata (Tokorozawa Jikou Hospital)
Hitoshi Hashimoto (Osaka University)  Yasuhiro Kaneda (Iwaki Clinic)
Kenji Hashimoto (Chiba University)  Shuji Kaneko (Kyoto University)
Ryota Hashimoto (National Center of Neurology and Psychiatry)  Kosuke Kanemoto (Aichi Medical University)
Nobutaka Hattori (Juntendo University)  Kiyoto Kasai (The University of Tokyo)
Yanling He (Shanghai Jiao Tong University, China)  Masaki Kato (Kansai Medical University)
Teruhiko Higuchi (Rokubancho Mental Clinic)  Nobumasa Kato (Institute of Neuro-Psychiatry)
Hirokazu Hirai (Gunma University)  Tadafumi Kato (RIKEN)
Masayuki Hiramatsu (Meijio University)  Chiaki Kawanishi (Sapporo Medical University)
Yoshio Hirayasu (Yokohama City University)  Hiroaki Kawasaki (Fukuoka University)
Naoyuki Hironaka (LSI Medience Corp.)  Satoshi Kida (Tokyo University of Agriculture)
Hikaru Hori (University of Occupational and Environmental Health)  Tetsuro Kikuchi (Otsuka Pharmaceutical Co., Ltd.)
Jun Horiguchi (Shimane University)  Toshiaki Kikuchi (Japan Agency for Medical Research and Development)
Hirosi Ichinose (Tokyo Institute of Technology)  Chan-Hyung Kim (Yonsei University, Korea)
Jun-ichi Iga (Ehime University)  Euitae Kim (Seoul National University, Korea)
Kazutaka Ikeda (Tokyo Metropolitan Institute of Medical Science)  Toshihiko Kinoshita (Kansai Medical University)
Taro Kishi (Fujita Health University)
Taishiro Kishimoto (Keio University)
Toshifumi Kishimoto (Nara Medical University)
Kiyoyuki Kitaichi (Gifu Pharmaceutical University)
Kazuto Kobayashi (Fukushima Medical University)
Fumitoshi Kodaka (Jikei University School of Medicine)
Toshiba Koyama (Ohyachi Hospital)
Hiroki Kusumi (Hokkaido University)
Hiroshi Kunugi (National Center of Neurology and Psychiatry)
Toshibi Kuroki (Kyushu University)
Ichiro Kusumi (Hokkaido University)
Jun Soo Kwon (Seoul National University, Korea)
Shih-Ku Lin (Queen’s University, Canada)
Masaru Mimura (Keio University)
Kyung Joon Min (Chung-Ang University Hospital, Korea)
Masahumi Minami (Hokkaido University)
Itaru Miura (Fukushima Medical University)
Kazuo Mihara (University of the Ryukyus)
Roumen Milev (University of the Ryukyus)
Hisato Miyata (Jikei University School of Medicine)
Hirokazu Miyamoto (Osaka University of Pharmaceutical Sciences)
Hitoshi Miyata (Jikei University School of Medicine)
Shin-Ichi Niwa (Fukushima Medical University)
Yukihiro Noda (Meijo University)
Yasuyuki Nomura (Kurume University)
Shusuke Numata (Tokushima University)
Tetsuro Ohmori (Tokushima University)
Yukihiro Ohno (Osaka University of Pharmaceutical Sciences)
Toshihisa Ohtsuka (University of Yamanashi)
Motohiro Okada (Mie University)
Hitoshi Okamoto (RIKEN)
Yasumasa Okamoto (Hiroshima University)
Hitoshi Okazawa (Tokyo Medical and Dental University)
Yoshiro Okubo (Nippon Medical School)
Gaku Okugawa (Kansai Medical University)
Hisae Ono (Kwansei Gakuin University)
Noriko Osumi (Tohoku University)
Akio Otani (Yamagata University)
Yoshiaki Otani (Kobe City Medical Center General Hospital)
Tempe Otsubo (Tokyo Women's Medical University)
Kotaro Otsuka (Iwate Medical University)
Norio Ozaki (Nagoya University)
Hioki Ozawa (Nagasaki University)
Yuji Ozeki (Dokkyo Medical University)
Naren P. Rao (National Institute of Mental Health and Neurosciences, India)
Tadashi Saigusa (Nihon University)
Manabu Saito (Hiroshima University)
Takuya Saito (Hokkaido University)
Toshikazu Saito (Psychiatry Institute, Hokujinkai Medical Corporation)
Akira Sano (Kagoshima University)
Junji Saruwatari (Kumamoto University)
Masashi Sasa (Nagisa Clinic)
Masamichi Sato (Kyoto University)
Mitsumoto Sato (Tohoku University / Takaoka Hospital)
Ryo Yashiki (Hiroshima University)
Winston W. Shen (Taipei Medical University, Taiwan)
Eiji Shimizu (Chiba University)
Kazutaka Shimoda (Dokkyo Medical University)
Takahiro Shinkei (University of Occupational and Environmental Health)
Kazuhiro Shinosaki (Asakayama General Hospital)
Osamu Shirakawa (Kindai University)
Yukihiko Shirayama (Teikyo University)
Tianmei Si (Peking University, China)
Toshiyuki Someya (Niigata University)
Ichiro Sora (Kobe University)
Tung-Ping Su (Cheng-Hsin General Hospital / National Yang-Ming University, Taiwan)
Shiro Suda (Jichi Medical University)
Norio Sugawara (National Center of Neurology and Psychiatry)
Tetsuya Suhara (National Institutes for Quantum and Radiological Science and Technology)
Tomiki Sumiyoshi (National Center of Neurology and Psychiatry)
Suresh Sundaram (Monash University, Australia)
Akihito Suzuki (Yamagata University)
Michio Suzuki (University of Toyama)
Takefumi Suzuki (Inokashira Hospital)
Tsutomu Suzuki (Hoshu University)
Yutarou Suzuki (Niigata University)
Kohji Takada (Teikyo University)
Hiroyuki Takagi (Seimou Hospital)
Kazuhiro Takama (Kumamoto Health Science University)
Yutaro Suzuki (Niigata University)
Kohji Takada (Teikyo University)
Tsutomu Suzuki (Hoshi University)
Masatoshi Takeda (Aino University)
Hidehiko Takahashi (Kyoto University)
Ryosuke Takahashi (Kyoto University)
Yosheru Takekita (Kansai Medical University)
Kazuhiro Takuma (Osaka University)
Toru Takumi (RIKEN)
Chay Hoon Tan (National University of Singapore, Singapore)
Andi J. Tanra (Hasanuddin University, Indonesia)
Takeshi Terao (Oita University)
Shogo Tokuyama (Kobe Gakuin University)
Hidehiko Takahashi (Kyoto University)
Hiroyuki Uchida (Keio University)
Makoto Tsuda (Kyushu University)
Hiroyuki Uchida (Keio University)
Naohisa Uchimura (Kurume University)
Tetsu Tomita (Hiroasaki University)
Makoto Tsuda (Kyushu University)
Shogol Uchimura (Kurume University)
Yosuke Uchitomi (National Cancer Center Hospital)
Shu-ichi Ueno (Ehime University)
Yasuhiro Uezono (National Cancer Center)
Koichi Watanabe (Kyorin University)
Norio Watanabe (Kyoto University)
Shigeru Watanabe (Keio University)
Kazuo Yamada (Tohoku Medical and Pharmaceutical University)
Shigeti Yamawaki (Hiroshima University)
Kiyofumi Yamada (Nagoya University)
Mitsuhiko Yamada (National Center of Neurology and Psychiatry)
Norihito Yamada (Okayama University)
Shigei Yamaguchi (Dokkyo Medical University)
Hidenori Yamase (Hamamatsu University School of Medicine)
Shigeto Yamawaki (Hiroshima University)
Kazuhiko Yanai (Tohoku University)
Yen Kuang Yang (National Cheng Kung University, Taiwan)
Norio Yasui-Furukori (Hiroasaki University)
Setsuko Yasukawa (Yatsushiro Kosei Hospital)
Hiroyuki Yoneda (Osaka Medical College)
Yukio Yoneda (Kanazawa University)
Takeo Yoshikawa (RIKEN)
Setsuofumi Yoshimura (Kansai Medical University)
Reiji Yoshimura (University of Occupational and Environmental Health)
Takashi Yoshio (Toho University)
Mitsuhiko Yoshioka (Hokkaido University)
Xin Yu (Peking University, China)
Kunio Yui (Fujita Health University)
Gang Zhu (China Medical University, China)

*in alphabetical order

Program Committee Chair: Ryota Hashimoto (National Center of Neurology and Psychiatry)

Program Committee Members:

Kazutaka Ikeda (Tokyo Metropolitan Institute of Medical Science)
Shinya Kasai (Tokyo Metropolitan Institute of Medical Science)
Chan-Hyung Kim (Yonsei University, Korea)
Fumitoshi Kodaka (Jikei University School of Medicine)
Shih-Ku Lin (Taipei City Hospital and Psychiatric Center, Taiwan)
Roumen Milev (Queen’s University, Canada)
Tsuyoshi Miyakawa (Fujita Health University)
Hisatsugu Miyata (Jikei University School of Medicine)
Tetsuo Nakabayashi (Pharmaceuticals and Medical Devices Agency)
Atsushi Nitta (University of Toyama)
Naren P. Rao (National Institute of Mental Health and Neurosciences, India)
Kazutaka Shimoda (Dokkyo Medical University)
Takahiro Shinkai (University of Occupational and Environmental Health, Japan)
Toshiyuki Someya (Niigata University)
Tung-Ping Su (National Yang-Ming University, Taiwan)
Suresh Sundram (Monash University, Australia)
Chay Hoon Tan (National University of Singapore, Singapore)
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Hiroyuki Uchida (Keio University)
Shigeto Yamawaki (Hiroshima University)
Reiji Yoshimura (University of Occupational and Environmental Health, Japan)
Xin Yu (Peking University, China)

*in alphabetical order
Access

Fukuoka International Airport

Fukuoka Sunpalace Hotel and Hall

5 minutes. by subway

JR Hakata Station Hakata-exit City Bank-mae
Bus Stop F No.88/ No.99

11 minutes. by bus No.99

Get off at Kokusai Center-San Palace-mae
A short walk

Hakata Airport Subway Station

15 minutes. by subway

Tenjin Solaria Stage-mae
Bus Stop 2A No.80

9 minutes. by bus No.80

Get off at Kokusai kaigijyo-San Palace-mae
A short walk

Fukuoka International Congress Center / Fukuoka Sunpalace Hotel and Hall
### Program at a Glance

#### Day1: October 11 (Fri)

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#### Session 1: 8:00 AM - 8:20 AM

**Opening Ceremony**

#### Session 2: 8:20 AM - 8:40 AM

**JSCNP-S1** Occupational psychopharmacology in 2019

**JSCNP-S2** Aims and scope of schizophrenia pharmacotherapy: guidelines revised edition

#### Session 3: 8:40 AM - 9:00 AM

**JSCNP-S3** Near-future psychiatric treatment expected from state-of-the-art technology. Liquid Biopsy, Smart Nanomachine and DNA Demethylation

**JSCNP-S4** Update 2019 of pharmacotherapy for bipolar disorders

**JSCNP-S5** From the viewpoint of each clinical department, we evaluate epilepsy from different angles — For skill up of the epilepsy medical treatment

**JSCNP-S6** Practical issues on postmarketing evaluation of effectiveness and safety

#### Session 4: 9:00 AM - 10:00 AM

**AsCNP-S5** Maintenance treatment following remitted first episode psychosis

**AsCNP-S6** Translation of Research to Clinical Practice

#### Session 5: 10:00 AM - 10:20 AM

**AsCNP-S7** Treatment strategies for severe and chronic, and treatment resistant schizophrenia, and social and medical changes based on the strategies

**AsCNP-S8** Perspectives of future treatment strategies for depressive disorders with new and present antidepressants

#### Session 6: 10:20 AM - 11:00 AM

**JSCNP-S9** Pregnancy and autism spectrum disorder

**JSCNP-S10** Message from MUSUBI-J study

**JSCNP-S11** Novel antidepressant targets found from the central serotonergic and related systems

**JSCNP-S12** The multi-dimensional approach to metabolic disturbance in schizophrenia

#### Session 7: 11:00 AM - 12:00 PM

**AsCNP-S13** Psychiatry guidelines for treatment resistant schizophrenia, and changes based on new and present antidepressants

**AsCNP-S14** From genetic variation to disease — For skill up of the epilepsy medical treatment

**AsCNP-S15** Community Care~ mechanisms, strategies based on the strategies

**AsCNP-S16** From genetic variation to disease — For skill up of the epilepsy medical treatment

**AsCNP-S17** From genetic variation to disease — For skill up of the epilepsy medical treatment

**AsCNP-S18** From genetic variation to disease — For skill up of the epilepsy medical treatment

**AsCNP-S19** From genetic variation to disease — For skill up of the epilepsy medical treatment

**AsCNP-S20** From genetic variation to disease — For skill up of the epilepsy medical treatment

**JSCNP-S13** The multi-dimensional approach to metabolic disturbance in schizophrenia

**JSCNP-S14** The multi-dimensional approach to metabolic disturbance in schizophrenia

**JSCNP-S15** The multi-dimensional approach to metabolic disturbance in schizophrenia

**JSCNP-S16** The multi-dimensional approach to metabolic disturbance in schizophrenia

**JSCNP-S17** The multi-dimensional approach to metabolic disturbance in schizophrenia

**JSCNP-S18** The multi-dimensional approach to metabolic disturbance in schizophrenia

**JSCNP-S19** The multi-dimensional approach to metabolic disturbance in schizophrenia

**JSCNP-S20** The multi-dimensional approach to metabolic disturbance in schizophrenia

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12 6th Congress of Asian College of Neuropsychopharmacology (AsCNP)
### Day 2: October 12 (Sat)

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#### 8:00 - 8:40
- **AsCNP-SL2**
  - C: Chan-Hyung Kim
  - Hiroaki Kawasaki
  - S: Allan H. Young
  - Nakashima N. Yatham

#### 9:00 - 9:40
- **JSCNP-27**
  - CNS Seminar
  - C: Shigeto Yamawaki

#### 10:00 - 10:20
- **JSCNP-51**
  - Clinical practice guideline for anxiety and obsessive-compulsive disorders
  - C: Shigeo Okabe

#### 11:00 - 11:20
- **JSCNP-S27**
  - Regulatory Collaboration to Accelerate Drug Development
  - C: Shigetomo Kamiyama
  - O: Junko Sato
  - S: Jun Ishigooka

#### 12:00 - 12:10
- **AsCNP-SL3**
  - C: Koki Inoue
  - S: George Koob

#### 13:00 - 13:20
- **JSCNP-53**
  - "Development of new drugs in pharmaceutical industry" you do not know
  - C: Toshiya Murai

#### 13:30 - 13:50
- **LS3-1**
  - C: Otsuka Pharmaceutical Co., Ltd.
  - O: Takahiro Kato

#### 14:00 - 14:20
- **JSCNP-54**
  - Development of therapeutics for early intervention in psychiatric disorders: Evidence from rodents, primates, and humans
  - C: Hirokazu Hirai

#### 14:30 - 14:50
- **JSCNP-55**
  - Development of therapeutics for early intervention in psychiatric disorders: Evidence from rodents, primates, and humans
  - C: Toshiya Murai

#### 15:00 - 15:20
- **JSCNP-56**
  - Early Career Researchers Symposium Clinical research in progress on addictive medicine
  - C: Edward F. Domino
  - O: Toshitaka Nabeshima

#### 15:30 - 15:50
- **JSCNP-57**
  - Study of treatment strategy on psychiatric disorders
  - C: Edward Domino
  - O: Yen Kuang Yang

#### 16:00 - 16:20
- **JSCNP-58**
  - Clinical applications and adverse effects of components of cannabis: current status of basic science researches
  - C: Edward Domino
  - O: Toshitaka Nabeshima

#### 16:30 - 16:50
- **JSCNP-59**
  - Current status and future issues of TDM for clozapine
  - C: Edward Domino
  - O: Yen Kuang Yang

#### 17:30 - 18:30
- **JSNP Oral Session 1**
  - Current status and future issues of TDM for clozapine
  - C: Edward Domino
  - O: Toshitaka Nabeshima

#### 18:30 - 19:30
- **JSNP Oral Session 2**
  - Neural mechanisms of emotion and its dysfunctions in psychiatric disorders
  - C: Edward Domino
  - O: Toshitaka Nabeshima

#### 19:30 - 20:00
- **JSNP Oral Session 7**
  - Neural mechanisms of emotion and its dysfunctions in psychiatric disorders
  - C: Edward Domino
  - O: Toshitaka Nabeshima

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**6th Congress of Asian College of Neuropsychopharmacology (AsCNP)**
### Day 3: October 13 (Sun)

#### Congress Center Fukuoka Sunpalace Hotel and Hall Congress Center Building

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#### Schedule

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<tbody>
<tr>
<td>8:00</td>
<td>Session 1: Introduction</td>
</tr>
<tr>
<td>8:40</td>
<td>Session 1: Speeches</td>
</tr>
<tr>
<td>9:00</td>
<td>Session 1: Plenary Session</td>
</tr>
<tr>
<td>9:40</td>
<td>Session 1: Panels</td>
</tr>
<tr>
<td>10:20</td>
<td>Session 1: Break</td>
</tr>
<tr>
<td>11:00</td>
<td>Session 2: Plenary Session</td>
</tr>
<tr>
<td>11:40</td>
<td>Session 2: Panels</td>
</tr>
<tr>
<td>12:10</td>
<td>Lunch Session (All)</td>
</tr>
<tr>
<td>12:30</td>
<td>Oral Session 1: Presentations</td>
</tr>
<tr>
<td>13:30</td>
<td>Oral Session 1: Discussions</td>
</tr>
<tr>
<td>14:30</td>
<td>Oral Session 2: Presentations</td>
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<tr>
<td>15:30</td>
<td>Oral Session 2: Discussions</td>
</tr>
<tr>
<td>16:30</td>
<td>Oral Session 3: Presentations</td>
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<tr>
<td>17:30</td>
<td>Oral Session 3: Discussions</td>
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<tr>
<td>18:30</td>
<td>Poster Session 1: Presentations</td>
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<tr>
<td>19:30</td>
<td>Poster Session 1: Discussions</td>
</tr>
<tr>
<td>20:30</td>
<td>Poster Session 2: Presentations</td>
</tr>
<tr>
<td>21:30</td>
<td>Poster Session 2: Discussions</td>
</tr>
<tr>
<td>22:30</td>
<td>Poster Session 3: Presentations</td>
</tr>
<tr>
<td>23:30</td>
<td>Poster Session 3: Discussions</td>
</tr>
</tbody>
</table>

#### Abstracts

- **AsCNP-S40**: Noteworthy drug discovery and development - Aiming for innovation -
  - Speaker: Tetsuro Kikuchi
  - Details: George Koob

- **JSNP-S8**: Novel prevention and treatment of PTSD - from basic research to clinical trial
  - Speaker: Shigeto Yamawaki

- **AsCNP-S41**: Cognitive impairments, neuroimaging and genetics in chronic methamphetamine users and ketamine users
  - Speaker: Yanhui Liao
  - Details: Kenji Matsumoto

- **AsCNP-S42**: The multidimensional approach to treatment in major depression
  - Speaker: Choy Hoon Tan
  - Details: Naotaka Shimizu

- **JSNP-S9**: Gender differences in glutamate in the mouse central nervous system
  - Speaker: Po-Hsiu Kuo
  - Details: Osamu Shirakawa

- **JSNP-S10**: Roles of damage-associated molecules for inflammatory conditions in mental illnesses
  - Speaker: Tetsuaki Arai

- **JSNP-S11**: Psychopharmacological strategies for various clinical issues in schizophrenia
  - Speaker: Hirotaka Kosaka

#### Oral Sessions

1. **JSNP-S59**: Molecular mechanisms of emotional behaviors
   - Speaker: George Koob

2. **JSNP-S60**: Symptomatic animal models by circuit manipulation and their application to drug development
   - Speaker: Takuya Saito

3. **JSNP-S61**: Attention and psychopharmacological strategies for various clinical issues in schizophrenia
   - Speaker: Kenji Matsumoto

#### Poster Sessions

1. **P.196**: Current and future drug discovery and development - Aiming for innovation
   - Speaker: Tetsuro Kikuchi

2. **P.174**: Novel prevention and treatment of PTSD - from basic research to clinical trial
   - Speaker: Shigeto Yamawaki

3. **P.213**: Cognitive impairments, neuroimaging and genetics in chronic methamphetamine users and ketamine users
   - Speaker: Yanhui Liao

4. **P.289**: The multidimensional approach to treatment in major depression
   - Speaker: Choy Hoon Tan

5. **JSNP-S58**: Gender differences in glutamate in the mouse central nervous system
   - Speaker: Po-Hsiu Kuo

6. **JSNP-S59**: Roles of damage-associated molecules for inflammatory conditions in mental illnesses
   - Speaker: Tetsuaki Arai

7. **JSNP-S60**: Symptomatic animal models by circuit manipulation and their application to drug development
   - Speaker: Takuya Saito

8. **JSNP-S61**: Attention and psychopharmacological strategies for various clinical issues in schizophrenia
   - Speaker: Kenji Matsumoto

#### Messages

- **EGUIDE workshop**: JSNP-JSCNP

#### Venue Details

- **Room Main Hall**: 411+412, 413+414, 409, 410, 401+402, 403, 404, 405

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**Note:** The schedule and abstracts are indicative and subject to change. For the most accurate information, please refer to the official program or contact the organizers.
Information for Participants

1. Registration

(1) Registration Desk

<table>
<thead>
<tr>
<th>Opening Hours</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 11 (Fri)</td>
<td>7:30~18:30</td>
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<tr>
<td>October 12 (Sat)</td>
<td>8:00~17:00</td>
</tr>
<tr>
<td>October 13 (Sun)</td>
<td></td>
</tr>
</tbody>
</table>

Fukuoka International Congress Center
1F Entrance Hall

(2) Registration Fees

<table>
<thead>
<tr>
<th>Registration Type</th>
<th>Rates (On-site Registration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Members</td>
<td>JPY 45,000</td>
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<tr>
<td>Members (Developing Countries)</td>
<td>JPY 30,000</td>
</tr>
<tr>
<td>Student Members</td>
<td>JPY 15,000</td>
</tr>
<tr>
<td>Non-members</td>
<td>JPY 55,000</td>
</tr>
<tr>
<td>Non-members (Developing Countries)</td>
<td>JPY 40,000</td>
</tr>
<tr>
<td>Student Non-members</td>
<td>JPY 18,000</td>
</tr>
<tr>
<td>Accompanying Persons</td>
<td>JPY 5,000</td>
</tr>
</tbody>
</table>

*Payment by cash and credit card (VISA, MasterCard, JCB, American Express, Diners Club) is acceptable.

- Registration Fee for Members, Non-members and Student Members Includes:
  - Admission to all scientific sessions including Japanese sessions of JSNP/JSCNP2019
  - Admission to poster exhibition and technical exhibition
  - Admission to all social programs
  - Admission to Japanese cultural experience programs
  - Congress materials (abstract booklet, congress bag, etc.)

- Registration Fee for Accompanying Persons Includes:
  - Admission to all social programs
  - Admission to Japanese cultural experience programs

2. For those who have completed pre-registration

Name badge and abstract booklet will be sent to pre-registrants living in Japan and early-bird registrants (who completed registration by July 31) living outside of Japan in late September. Please make sure to bring them to the congress site. You do not have to stop by at the registration desk.

3. Abstracts

The abstracts of AsCNP2019 will be published online and on app as well as in the abstract booklet.

The following password is required to browse / download the abstracts online and on app.

Password: fukuoka2019

- Online Abstracts
  Please access via the congress website at

  https://www2.aeplan.co.jp/ascnp/
4. Social Events

The following social events are scheduled during the congress.

■ Pre-opening Gathering
October 10 (Thu) 17:00~19:30
Fukuoka International Congress Center, 1F, Raconter

■ AsCNP/JSNP/JSCNP Joint Social Gathering
October 11 (Fri) 18:20~20:00
Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)
*AsCNP Lundbeck Science Award Ceremony will be held during this social gathering.

■ Evening Mixer with Cheese & Wine
October 12 (Sat) 18:10~19:00
Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

■ Closing Ceremony with Farewell Party
October 13 (Sun) 18:10~20:00
Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)
*Award Ceremony for the following awards will be held during the closing ceremony.
  • AsCNP Outstanding Research Award for AsCNP2019
  • Excellent Research Award for AsCNP2019
  • Excellent Presentation Award for AsCNP2019
  • JSNP Excellent Presentation Award for AsCNP2019
  • JSCNP Excellent Presentation Award for AsCNP2019

5. Services & Facilities

<table>
<thead>
<tr>
<th>Service</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registration Desk</td>
<td>Fukuoka International Congress Center, 1F, Entrance Hall</td>
</tr>
<tr>
<td>Secretariat Office</td>
<td>Fukuoka International Congress Center, 5F, 504</td>
</tr>
<tr>
<td>Speakers’ Data Preview</td>
<td>Fukuoka International Congress Center, 2F, Lobby</td>
</tr>
<tr>
<td>Exhibition</td>
<td>Fukuoka International Congress Center, 5F, Lobby</td>
</tr>
<tr>
<td>Cloak</td>
<td>Fukuoka International Congress Center, 1F, Entrance Hall</td>
</tr>
<tr>
<td></td>
<td>Opening Hours: October 11 (Fri) 7:00~20:30</td>
</tr>
<tr>
<td></td>
<td>October 12 (Sat) 8:00~19:30</td>
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<tr>
<td></td>
<td>October 13 (Sun) 8:00~20:30</td>
</tr>
<tr>
<td>Drinks</td>
<td>Drink service will be available in poster hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall).</td>
</tr>
<tr>
<td>Lunch</td>
<td>Lunch boxes will be provided by sponsoring companies at the lunch time sessions. Halal and vegetarian lunch boxes will be available on 2F lobby 11:00~13:00 each day. Please pick up a lunch box there and join the lunch time sessions.</td>
</tr>
</tbody>
</table>
6. Japanese Cultural Experiences

AsCNP2019 will provide you a chance to experience Japanese cultural activities. AsCNP2019 participants and accompanying persons who have registered for the congress can participate in the following activities for free.

**IKEBANA (Flower Arrangement)**
IKEBANA is one of the traditional cultures in Japan. This tells us the importance which is having emotional leeway.

October 11 (Fri) 10:30–12:10  13:40–15:10  
Place: Fukuoka Sunpalace Hotel & Hall, 2F, Genkai

**KODO (Traditional Incense-smelling Ceremony)**
KODO is the art of fragrance. When feeling the fragrance, they often say hearing (not smelling) it.

October 11 (Fri) 10:30–12:10  13:40–15:10  
Place: Fukuoka Sunpalace Hotel & Hall, 2F, Genkai
**SADO (Tea Ceremony)**
We can learn Japanese manner through SADO.
And also, enjoy “OMOTENASHI” that means Japanese service.

October 12 (Sat) 10:30~12:10  13:40~15:10
Place: Fukuoka Sunpalace Hotel & Hall, 2F, Genkai

**SYODO (Calligraphy)**
SYODO can express not only beauty of letter but individuality.

October 12 (Sat) 10:30~12:10  13:40~15:10
Place: Fukuoka Sunpalace Hotel & Hall, 2F, Genkai

**ORIGAMI (Paper-folding)**
ORIGAMI can be performed, as hobby, education, or effect of rehabilitation.

October 11 (Fri) 10:00~17:00
October 12 (Sat) 10:00~17:00
October 13 (Sun) 10:00~17:00
Place: Fukuoka Sunpalace Hotel & Hall, 2F, Genkai

**KITSUKE TAIKEN (Kimono Wearing Experience)**
* Advance reservation required
* Exclusively for non-Japanese participants
* Limited to 20 people per day

You can attend the social events of AsCNP2019 wearing a Kimono!
Please make a reservation via AsCNP2019 website.

October 11 (Fri) 16:00
~end of AsCNP/JSNP/JSCNP Joint Social Gathering
Place: Fukuoka Sunpalace Hotel & Hall, 2F, Genkai

October 13 (Sun) 16:00~end of Farewell Party
Place: Fukuoka Sunpalace Hotel & Hall, 2F, Chikushi
Information for Chairs and Presenters

1. Information for Chairs

A. Chairs of Oral Sessions (Special Lectures, Symposia, Award Lectures, Oral Sessions)
   Please take the seats prepared for chairs at the front right in each session room no later than 10 minutes prior to the starting time of the session.

   The chairs are expected to ensure the session starts and finishes punctually as scheduled. Remaining time for each presentation will be notified with a time indicator with lights as follows;

   • Yellow Light: end of presentation - start Q & A
   • Red Light: end of Q & A - time for next presentation

B. Chairs of Poster Sessions
   Please come to the reception desk for chairs of poster sessions located on the 2F lobby of International Congress Center no later than 30 minutes prior to the starting time of the session.

2. Information for Presenters

* All presenters should disclose relevant conflict of interest (COI) at their presentations.

A. Presenters of Oral Sessions (Special Lectures, Symposia, Award Lectures, Oral Sessions)

(1) Arrival
   Please preview your presentation data no later than 30 minutes prior to the starting time of the session. Take the seats prepared for speakers in each session room no later than 10 minutes prior to the starting time of the session.

(2) Time for Presentation
   • Special Lectures / Symposia
     Time allocation for presentations differs depending on each session.
   • Award Lecture 1, 2
     12 minutes (9 minutes for Presentation, 3 minutes for Q & A)
   • Oral Sessions 1~5
     9 minutes (7 minutes for Presentation, 2 minutes for Q & A)

(3) Presentation Data Preview
   Please bring your laptop or presentation data saved in CD-R or USB flash memory (Windows only).

<table>
<thead>
<tr>
<th>Opening Hours</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>October 10 (Thu)</td>
<td>15:00 ~ 17:30</td>
</tr>
<tr>
<td>October 11 (Fri)</td>
<td>7:30 ~ 18:30</td>
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<td>October 12 (Sat)</td>
<td>8:00 ~ 17:00</td>
</tr>
<tr>
<td>October 13 (Sun)</td>
<td>8:00 ~ 13:30</td>
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</tbody>
</table>

   International Congress Center
   2F Lobby

*Data preview before the first sessions of the day will be very crowded. Please preview your presentation data well in advance.
(4) Technical Information

• The equipment for PowerPoint presentations on site will be set to project presentations in the 16:9 widescreen aspect ratio.
• Operating system on site is Windows 10, and it is not compatible with Macintosh. **Please bring your own laptop if you use Macintosh or a video is included in your presentation data**
• A display, computer mouse, and keyboard will be prepared on the podium in each session room to be operated by presenters themselves.

**For those bringing presentation data in CD-R or USB Flash Memory**

• Windows PowerPoint 2010/2013/2019 are acceptable.
• Please use standard fonts such as Arial, Century, Times New Roman, etc.
• Please name the presentation data with your presentation No. and your name.
  (ex. O1-9_Taro Fukuoka)
• Please be sure to bring your back-up data with you.

**For those bringing your own laptop**

• Please ensure that your computer is equipped with the proper monitor connector (either HDMI or D-sub 15 pin) as shown below.
  If your computer does not have one of these connections, please bring an appropriate converter with you.
• Be sure to bring an AC adaptor. Please note that voltage in Japan is 100V and the frequency ranges 50-60 Hz depending on the area (60Hz in Fukuoka).
• The socket is type A. If your laptop is not convertible, transformers and/or plug adaptors are necessary.
• **Please deactivate the screen-saver and power saving mode of your laptop.**

![HDMI and D-sub 15 pin connections](image)

B. Presenters of Poster Sessions

(1) Periods of Poster Display

Each poster will be displayed for one day during the meeting period (October 11 (Fri) - 13 (Sun)).
Please set up your poster in the morning of your presentation day.

(2) Presentation

Poster sessions will be moderated by the chairs.
Allotted time for each poster is 5 minutes. (3 minutes for presentation, 2 minutes for Q & A)
Please wear a yellow ribbon indicating a poster presenter on your chest.

(3) Time for Set up, Presentation / Discussion, Removal

<table>
<thead>
<tr>
<th>Location</th>
<th>Schedule</th>
<th>October 11 (Fri)</th>
<th>October 12 (Sat)</th>
<th>October 13 (Sun)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poster Hall (International Congress Center, 2F, Multi-purpose Hall)</td>
<td>Set up</td>
<td>8:00 ~ 10:30</td>
<td>8:00 ~ 10:30</td>
<td>8:00 ~ 10:30</td>
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<tr>
<td></td>
<td>Display</td>
<td>10:30 ~ 13:40</td>
<td>10:30 ~ 16:40</td>
<td>10:30 ~ 16:40</td>
</tr>
<tr>
<td></td>
<td>Presentation/Discussion</td>
<td>13:40 ~ 15:10</td>
<td>16:40 ~ 18:10</td>
<td>16:40 ~ 18:10</td>
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<tr>
<td></td>
<td>Removal</td>
<td>15:10 ~ 16:00</td>
<td>18:10 ~ 19:15</td>
<td>18:10 ~ 20:00</td>
</tr>
</tbody>
</table>
(4) Posting

- Poster numbers and pushpins are prepared by the secretariat on each panel.
- Each panel space available is 90 cm wide x 150 cm high.
- Presentation title, author(s) and affiliation(s) should be indicated on top of the poster.
- Presenters must disclose applicable COI (Conflict of Interest) of their presentation.

<Example>
Pre-Congress Meetings

Korean Symposium
October 10 (Thu) 14:30 ~ 17:00 / Room 4 (Fukuoka International Congress Center, 4F, 409)
Organizer: Korean College of Neuropsychopharmacology (KCNP)

A. Brain- Gut- microbiota Axis in Psychiatric Disease
Chair: Sang-Yeol Lee Wonkwang University School of Medicine and Hospital
   Young-Joon Kwon (Soonchunhyang University Chun-an Hospital)

1. Overview of Brain-Gut- Microbiota axis
   Young-Hoon Ko (Korea University College of Medicine)
2. Brain-Gut-Microbiota axis in Anxiety disorder
   Sae Heon Jang (Bongseng Memorial Hospital)
3. Brain-Gut- Microbiota axis in Depressive disorder
   Jong-Hyun Jeong (The Catholic University of Korea)
4. Brain-Gut- Microbiota axis in Bipolar disorder
   Jeongwan Hong (Iksan Hospital)

B. Korean Medication Algorithm Project (KMAP) for Major Psychiatric Diseases
Chair: Kyung Joon Min (Chung-ang University)
   Bo-Hyun Yoon (Naju National Hospital)

1. Korean Medication Algorithm Project for Depressive Disorder (KMAP-DD)
   Young-Min Park (Inje University College of Medicine)
2. Korean Medication Algorithm Project for Bipolar Disorder (KMAP-BPD)
   Won Kim (Seoul Paik Hospital, Inje University)
3. Korean Medication Algorithm Project for Schizophrenia (KMAP-SPR)
   Jung Suk Lee (NHIS Ilsan Hospital)

2019 TSBPN-AsCNP Joint Meeting
Taiwan Research Symposium
October 10 (Thu) 15:00 ~ 17:10 / Room 5 (Fukuoka International Congress Center, 4F, 410)
Organizer: Taiwanese Society of Biological Psychiatry and Neuropsychopharmacology (TSBPN)

15:00 ~ 15:10 Opening Remarks
   Yen-Kuang Yang (National Cheng Kung University)

15:10 ~ 15:45 Novel Drug Development
   Lih-Chu Chiou (National Taiwan University)

15:45 ~ 16:20 Neuroimage Studies in Attention-Deficit Hyperactivity Disorder: Endophenotype,
   Imaging Genetics and Treatment Effect
   Susan Shur-Fen Gau (National Taiwan University)

16:20 ~ 16:40 Young Investigator
   Yi-Ting Lin (National Taiwan University)

16:40 ~ 17:00 Student Member
   En-Ju Lin (National Cheng Kung University)

17:00 ~ 17:10 Closing
   Shih-Ku Lin (Taipei City Hospital and Psychiatric Center)
**AsCNP-ASEAN Pre-Congress Meeting of Neuropsychopharmacology**

**Bridging Research Collaboration between AsCNP and ASEAN Region in Psychiatric Field**

October 10 (Thu) 2019 15:00 ~ 16:40 / Room 3 (Fukuoka International Congress Center, 4F, 413+414)
Organizer: Indonesian Association of Biological Psychiatry and Psychopharmacology (IABPP)

*Open for all congress participants

15:00 ~ 15:10  Opening Remarks
Andi Jayalangkara Tanra (Indonesia)

15:10 ~ 15:30  Potential link between T102C polymorphism in the serotonin receptors (5-HT2A) gene and treatment response of risperidone on schizophrenia
Andi Jayalangkara Tanra (Indonesia)

15:30 ~ 15:50  Polypharmacy and Psychotropic Drug Load: Findings from REAP Studies
Shih-Ku Lin (Taiwan)

15:50 ~ 16:10  Let’s Talk Malaysia (#LetsTalkMY): The need for more research collaboration in improving mental health care
Amer Siddiq (Malaysia)

16:10 ~ 16:30  Hikikomori in Japan and worldwide: Multidimensional Assessment and Intervention
Takahiro Kato (Japan)

16:30 ~ 16:40  Closing remarks

*Abstracts of this session are on P 385
Special Lecture
Special Lecture 1  October 11 (Fri), 15:20 - 16:20 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)
Chair: Jun Soo KWON (Department of Psychiatry, Seoul National University, Korea)

SL1  “New Era” of the Pharmaceutical Industry
Masayo TADA
Sumitomo Dainippon Pharma Co., Ltd.

Special Lecture 2  October 12 (Sat), 8:40 - 10:20 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)
Chairs: Chan-Hyung KIM (Department of Psychiatry, Yongsei University College of Medicine, Korea)
Hiroaki KAWASAKI (Department of Psychiatry, Faculty of Medicine, Fukuoka University, Japan)

SL2-1  Cognitive Dysfunction in Bipolar Disorder
Allan H. YOUNG
King’s College London, London, UK

SL2-2  Recent Advances in Treatment of Bipolar Depression
Lakshmi N. YATHAM
Department of Psychiatry, University of British Columbia, Canada

Special Lecture 3  October 12 (Sat), 13:40 - 14:40 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)
Chair: Koki INOUE (Department of Neuropsychiatry, Osaka City University, Japan)

SL3  The Gain in the Brain is in the Pain
George KOOB
National Institute on Alcohol Abuse and Alcoholism, USA

Special Lecture 4  October 13 (Sun), 13:40 - 14:40 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)
Chair: Hitoshi HASHIMOTO (Graduate School of Pharmaceutical Sciences, Osaka University, Japan)

SL4  From Pecking Order to Ketamine – Neural mechanisms of social and emotional behaviors
Hailan HU
Zhejiang University School of Medicine, China

Special Lecture 5  October 13 (Sun), 14:50 - 16:30 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)
Chairs: Tianmei SI (Peking University Institute of Mental Health, China)
Jun Nakamura (Kitakyushu Koga Hospital / University of Occupational and Environmental Health, Japan)

SL5-1  The Treatment of Early Phase Schizophrenia: Improving Outcomes
John M. KANE
Department of Psychiatry, The Zucker Hillside Hospital, USA

SL5-2  Novel Treatments Derived from Understanding Atypical Antipsychotic Drug Efficacy for Positive and Negative Symptoms and Cognitive Impairment in Schizophrenia and Preclinical Models
Herbert Y. MELTZER
Department of Psychiatry, Northwestern Feinberg School of Medicine, Chicago, IL, USA
# JSNP / JSCNP Lecture

## [JSNP / JSCNP] Invited Lecture  
**October 12 (Sat), 13:40 - 14:40 / Room 13 (Fukuoka International Congress Center, 5F, 501)**

*Japanese Session*

Chairs: Hisatsugu MIYATA (Department of Psychiatry, Jikei University School of Medicine, Japan)  
Reiji YOSHIMURA (Department of Psychiatry, University of Occupational and Environmental Health, Japan)

### IL

**A view of psychiatric disorders as complex disorders**  
Shigenobu KANBA  
Kyushu University / Japan Depression Center / Iida Hospital, Japan

## [JSNP] Special Lecture  
**October 11 (Fri), 15:20 - 16:20 / Room 13 (Fukuoka International Congress Center, 5F, 501)**

*Japanese Session*

Chair: Tsuyoshi KONDO (Department of Neuropsychiatry, Graduate School of Medicine, University of the Ryukyus, Japan)

### SL

**What have we achieved and what should we solve in psychiatric drug treatment?**  
Toshiyuki SOMEYA  
Department of Psychiatry, Niigata University Graduate School of Medical and Dental Sciences, Japan

## [JSCNP] Invited Lecture  
**October 11 (Fri), 16:30 - 18:10 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)**

Chair: Reiji YOSHIMURA (Department of Psychiatry, University of Occupational and Environmental Health, Japan)

### IL-1

**Dimensional Treatment of Bipolar Disorder**  
Andrea FAGIOLINI  
Professor of Psychiatry and Chairman, Chief of Medical Services, and Residency Training Director of the Department of Mental Health and Division of Psychiatry, University of Siena School of Medicine, Italy

### IL-2

**Brain-in-Flame: effects of neuroinflammation on cognitive function across psychiatric disorders**  
Bernhard T. BAUNE1,2,3  
1Department of Psychiatry and Psychotherapy, University of Münster, Münster, Germany,  
2Department of Psychiatry, Melbourne Medical School, The University of Melbourne, Melbourne, Australia,  
3The Florey Institute of Neuroscience and Mental Health, The University of Melbourne, Australia

## [JSNP] Special Lecture  
**October 13 (Sun), 13:40 - 14:40 / Room 13 (Fukuoka International Congress Center, 5F, 501)**

Chair: Hisatsugu MIYATA (Department of Psychiatry, Jikei University School of Medicine, Japan)

### SL

**Genetics of Tobacco Smoking**  
Edward F. Domino  
Department of Pharmacology, University of Michigan, USA
Featured Symposium

October 12 (Sat), 14:50-16:30 / Room 16 (Fukuoka Sunpalace Hotel & Hall, 2F, Heian)

The perspectives of psychiatry and neuropharmacology in the post-genomic era

Organizer / Chair: Akira SAWA (Johns Hopkins Medicine, USA)
Co-chair: Suresh SUNDRAM (Monash University and Monash Health, Australia)

Technological advances and collaborative efforts in psychiatric genetics have provided robust insights in molecular landscape of psychiatric disorders. How to interpret and fruitfully utilize genetic information in psychiatry and neuropharmacology is now becoming an opportunity but also a major challenge. In this symposium, three speakers will address this key question in this field from complementary viewpoints. The first speaker Steve Hyman will discuss a path from genetics to translational neuroscience. The second speaker Akira Sawa will introduce a strategy that focuses on deep phenotyping of patients, including molecular and cellular study. Finally, the third speaker Jun Soo Kwon will address this question from neuroimaging perspectives. Together, we hope that the symposium may be able to provide an intellectual framework in psychiatry and neuropharmacology in the coming decade.

FS-1 Toward psychiatric disease mechanisms and new therapeutics: from genetics to translational neuroscience
Steven E. HYMAN
Stanley Center, Broad Institute of Harvard and MIT, USA

FS-2 Looking for fruitful biology in the post-GWAS era: a global perspective
Akira SAWA
Johns Hopkins Medicine, USA

FS-3 Neuroimaging perspectives on the search for biomarkers in psychiatry: The case of thalamo-cortical system alterations in schizophrenia
Jun Soo KWON
Seoul National University Hospital, Korea

Discussants: Noboru HIROI (University of Texas Health Science Center at San Antonio, USA)
Naren P RAO (National Institute of Mental Health and Neurosciences, India)
Psychotic disorders (including schizophrenia and related disorders) involve complex brain dysfunctions affecting up to 3% of the population. They constitute one of the highest disease burdens globally and locally. The conditions inflict devastating consequences for youth and adults at the most productive years in their life. Relapse is a common problem in the treatment of patients with psychotic disorders. While maintenance treatment can help prevent relapse, the long-term use of antipsychotics carries substantial side effects. Empirical data are lacking on the long-term effects of medication discontinuation. The clinical decision to discontinue or continue medication in first-episode psychosis patients who have been free of positive symptoms for a period of time is therefore difficult. The first speaker will present long-term outcome data from a first episode psychosis cohort who were previously randomized into early maintenance treatment or discontinuation in Hong Kong. It was found that patients with early medication discontinuation is associated with poorer clinical outcome after 10 years. The second speaker will investigate an alternative approach to discontinuation, namely dose reduction in remitted psychosis. The speaker will discuss an observational study “Impact of guided antipsychotic dose reduction in patients with psychosis under remitted states: a randomized control trial and prospective follow-up study” which has been launched in Taiwan since 2017. The last speaker will present data from a survey towards clinicians’ views on medication discontinuation in remitted first episode psychosis in Singapore. The data show the ambiguity in clinicians about stopping medication in remitted patients with first episode psychosis due to a lack of clear guidelines, as well as patients’ desire to stop medication.
Schizophrenia is a costly and devastating mental disorder that affects up to 1% of the population worldwide. This debilitating brain disorder typically emerges in late adolescence and early adulthood which characterized by three main symptoms: positive symptoms (e.g., hallucinations, thought disorder, motor problems, delusions, symptoms associated with psychosis etc.), negative symptoms (e.g., flat affect, social withdrawal, apathy, self-neglect, anxiety, lack of motivation, and decrease in IQ etc.), and cognitive deficits. Generally speaking, positive symptoms of schizophrenia often respond well to antipsychotic drugs. Negative symptoms of schizophrenia can often linger or worsen over time, accompanied by impaired cognitive function, such as working memory and executive function. Currently available antipsychotics have been mainly focused on positive and mood-related symptoms targeting the dopamine and serotonin receptor systems. The negative symptoms and cognitive impairments of schizophrenia, which cause a deteriorated quality of life in patients and their families, have become an unmet medical need for antipsychotic drug development. In addition to the conventional view of dopamine involvement in schizophrenia (i.e., dopamine hypothesis of schizophrenia), other neurotransmitter systems (e.g., glutamatergic neurotransmission) and therapeutic targets have gradually gained more and more attentions in the investigation of pathophysiology and treatment of schizophrenia in the recent decades. In response to the urgent needs in schizophrenia, it is imperative to perform functional assays for drug screening and evaluation, especially in preclinical studies. Preclinical animal studies are highly valuable and indispensable to the understanding of the underlying pathophysiological mechanisms of schizophrenia and the elucidation of the drug effects. In this symposium, 4 distinguished speakers from Japan, USA, and Taiwan were invited, including Dr. Kiyofumi Yamada at Nagoya University Graduate School of Medicine, Dr. Yijuang Chern at Academia Sinica, Dr. Takashi Kitamura at University of Texas Southwestern Medical Center, and Dr. Wen-Sung Lai at National Taiwan University. We will report recent intriguing data and discuss new pharmaceutical agents for unmet medical needs in schizophrenia from preclinical animal models to clinical studies. Our findings will shed light on developing new pharmaceutical agents for unmet medical needs in schizophrenia and other neuropsychiatric disorders.

**S2-1 Reelin supplementation therapy in preclinical models of schizophrenia**
Kiyofumi YAMADA¹, Masahito SAWAHATA¹, Taku NAGAI¹, Daisuke IBI², Masayuki HIRAMATSU²
¹Dept. Neuropsychopharmacology & Hospital Pharmacy, Nagoya University Graduate School of Medicine, Nagoya, Japan,
²Dept. Chemical Pharmacology, Faculty of Pharmacy, Meijo University, Nagoya, Japan

**S2-2 The novel A2A adenosine receptor/ TRAX/ GSK3/ DISC1 complex as a potential therapeutic target of schizophrenia**
Yijuang CHERN, Ting CHIEN, Yu-Ting WENG
Institute of Biomedical Science, Academia Sinica, Taiwan

**S2-3 Neural circuit mechanisms for temporal association learning**
Takashi KITAMURA
Department of Psychiatry, University of Texas Southwestern Medical Center, TX, USA

**S2-4 The therapeutic potentials and underlying mechanism of sarcosine and RS-D7 in schizophrenia and other neuropsychiatric disorders**
Wen-Sung LAI, Ming-Che KUO, Da-Zhong LUO, Ju-Chun PEI, Liang-Yin LU, Wei-Li HUNG
¹Department of Psychology, National Taiwan University, ²National Taiwan University Cancer Center, Taiwan

Discussants: Atsushi KAMIYA (Johns Hopkins University School of Medicine, USA)
Ming-Che KUO (National Taiwan University Cancer Center, Taiwan)
A cutting-edge view on how to regulate the drug dependence related behaviors

Psychostimulants, such as amphetamine, methamphetamine and cocaine, have been widely abused worldwide, and exhibit strong potential for relapse. Most seriously, psychostimulants show a very high percentage of re-use. On the other hand, President Trump announced that U.S.A. is facing opioid crisis as a national public health emergency, and this social issue is not the social problem limited in the U.S.A. any more. A large and growing body of evidence has demonstrated that mesolimbic dopaminergic neurons, which project from the ventral tegmental area to the nucleus accumbens, play a key role in the reinforcing/rewarding effects of abuse drugs in humans/animals. Drug-dependence involves many factors, especially biological changes or adaptive responses in the brain as well as peripheral systems including organs. Furthermore, social, familial and environmental factors should be acknowledged. Thus, the treatment of drug abuse is complex; treatment strategies should include psychobiological, social, and pharmacological considerations based on the patient's background. So far agonist therapies are somewhat effective for the treatment of drugs abuse, there are currently no medications available to be completely satisfied for the treatment of drug abuse per se. To reach the goal of our research in the medication for drug-dependence, we need to know “where are we and/or where should we go?” In this symposium, 4 speakers are going to talk their cutting edge views to review these questions.

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<td>Organizer / Chair: Tomohisa MORI (Department of Pharmacology, Hoshi University, Japan)</td>
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<td>Co-chair: Tadashi SAIGUSA (Department of Pharmacology, Nihon University School of Dentistry at Matsudo, Japan)</td>
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<td>Behavioral intervention on Nicotine Addiction and Withdrawal</td>
<td>Mahardian RAHMADI, Chrismawan ARDIANTO, Junaidi KHOTIB</td>
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<td>Department of Clinical Pharmacy, Faculty of Pharmacy, Universitas Airlangga, Indonesia</td>
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<td>S3-2</td>
<td>Selective regulation of methamphetamine-induced “on cell” to exert the addiction related behaviors</td>
<td>Tomohisa MORI1, Minoru NARITA1, 2</td>
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<td>Department of Pharmacology, Hoshi University, Tokyo, Japan, Life Science Tokyo Advanced Research Center, Tokyo, Japan</td>
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<td>S3-3</td>
<td>Evaluation of 3,4,5-TMCA derivatives as potential antinarcotic agents</td>
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<td>School of Medicine, Ewha Womans Univ, Korea</td>
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<td>S3-4</td>
<td>Neuropeptide S and Orexins in Stress-Induced Cocaine Craving</td>
<td>Lih-Chu CHIOU1, 2, 3, Yu-Hsien CHOU1, Chia Chun HOR1, Ming Tatt LEE1, 3</td>
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<td>Graduate Institute of Pharmacology, College of Medicine, National Taiwan University, Taiwan,</td>
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<td>Department of Pharmacology, College of Medicine, National Taiwan University, Taiwan,</td>
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<td>Graduate Institute of Brain and Mind Sciences, College of Medicine, National Taiwan University, Taiwan</td>
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| Discussants: Makoto TANIGUCHI (Department of Neuroscience, Medical University of South Carolina, USA) |
| Yuta OHGI (Otsuka Pharmaceutical Co., Ltd., Japan) |
Advances in molecular biology techniques including genetic tools have provided new knowledge and deeper insights in understanding the biological roles of the endocannabinoid system in psychiatric disorders. The remarkable advances in genetics of endocannabinoid system (ECS) are unravelling the genetic bases in a number of neuropsychiatric disorders, including depression, schizophrenia, addiction, autism spectrum disorders and neurological conditions of neuro-immune disorders. The ECS consists of two major receptors (CB1Rs and CB2Rs), endocannabinoids (eCBs) and the synthesizing and degradation enzymes for eCBs. Although CB1Rs have been well characterized, the neuronal expression of CB2Rs and their role in neuropsychiatric have been subjects of long standing controversy and debate despite new knowledge and advances. The new molecular techniques and transgenic approaches are being used to explore and identify the involvement of the elements of ECS in models of CNS function and dysfunction underlying neuropsychiatric disorders. There is also increasing global awareness and interest in regulation of brain endocannabinoid system by elements of environmental stress and age. The recent study suggest that patients derived induced pluripotent stem cells (iPS cells) will be a one of the unique models for studying mental disorders. In this symposium, we provide data from our studies with a background on dysfunction of ECS genes in intermediate phenotypes of neuropsychiatric disorders, and the methods and approaches that were used to assess the neurobehavioral and molecular changes associated with the functions of specific neural networks. The age-dependent neural changes via ECS are analyzed in brains of animal models, human postmorten brains, and developmental stage of neural stem cells, neurons and glial cells from iPS cells. Furthermore, the mechanisms by which the neuro-immune crosstalk is likely to impact on risk factors contributing to neuropsychiatric disorders will be addressed. The selected speakers from Japan and USA will discuss the compelling evidence from their studies and current knowledge of CBR genetics and behavioral modifications – from mice to human subjects.

**S4-1 Environmental stressors on Cannabinoid CB2 Receptor dysfunction induce various psychosis**

Koichi TABATA1, 2, Emmanuel S ONAIVI1, Hiroki ISHIGURO1

1Department of Neuropsychiary and Clinical Ethics, Univ. of Yamanashi, Chuo, Yamanashi, Japan,
2Ome Municipal General Hospital, Tokyo, Japan

**S4-2 The utility of patients derived Neuron/glial cells for the schizophrenia disease model**

Yasue HORIUCHI, Masatoshi EGOSHI, Kazuya TORIUMI, Mitsuhari MIYASHITA, Masanari ITOKAWA, Makoto ARAI

Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Japan

**S4-3 Microglial and dopaminergic-neuron-specific deletion of CB2 cannabinoid receptors in stress induced neuroinflammation and behavior**

Emmanuel S. ONAIVI1, Hiroki ISHIGURO2, Qing-Rong LIU1

1Department of Biology, William Paterson University, USA, 2Department of Neuropsychiatry and Clinical Ethics, University of Yamanashi, Japan

**S4-4 Lysophosphatidylinositol, an endogenous agonist for novel cannabinoid receptor GPR55**

Atsushi YAMASHITA, Saori OKA, Takashi TANIKAWA, Keisuke NAKAJIMA, Yoko NEMOTO-SASAKI, Yasuhiro HAYASHI, Naoki MATSUMOTO, Takenori KOIZUMI, Takayuki SUGIURA

Faculty of Pharma-Sciences, Teikyo University, Japan

**Discussants:**

Akitoyo HISHIMOTO (Department of Psychiatry, Kobe University Graduate School of Medicine, Japan)

Hirokazu MIZOGUCHI (Department of Physiology and Anatomy, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University, Japan)
Recent Advances in Autism Research from Asia

Organizer / Chair: Atsushi SATO (Department of Pediatrics, The University of Tokyo Hospital, Japan)
Co-chair: Nobumasa KATO (Medical Institute of Developmental Disabilities Research, Showa University, Japan)

Knowledge on molecular mechanism of autism has been rapidly expanding. Analysis of autism associated with specific genetic disorders reveals its mechanisms as well as mechanism-specific potential therapy such as mTOR inhibitors in tuberous sclerosis complex-associated autism. However, a recent increase in the prevalence of autism implicates the presence of non-genetic factors that cause autism. Epidemiological studies point out the tight link between maternal administration of valproic acid (VPA), one of the major drugs for epilepsy and migraine, and increase in the risk of autism and developmental delay in their children. Exposure to VPA in utero is replicated in rodents, and these models have been investigated to understand molecular changes relevant to autism. Epigenetic factors such as paternal aging are also considered as the background of increasing prevalence of autism. Research with rodents born to aged fathers finds the relationship between paternal aging and autism in their offspring. In this symposium, recent advance in autism research is presented by Asian researchers with relevance to genetic, non-genetic, and epigenetic factors, which will deepen our understanding of molecular mechanism of autism.

S5-1 Common, specific phenotypes and molecular determinants in animal models of ASD: Therapeutic implication
Chan Young SHIN
School of Medicine, Konkuk University, Korea

S5-2 mTOR signaling pathway plays a key role in non-syndromic autism spectrum disorder
Hiroko KOTAJIMA1, Toshiyuki KOBAYASHI2, Hirofumi KASHII1, Atsushi SATO1, Yoko HAGINO1, Miho TANAKA4, Yasumasa NISHITO5, Yukio TAKAMATSU5, Shigeo UCHINO6, Kazutaka IKEDA1
1Addictive Substance Project, Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Japan, 2Department of Molecular Pathogenesis, Graduate School of Medicine, Juntendo University, Japan, 3Department of Pediatrics, The University of Tokyo Hospital, Japan, 4Department of Neuropsychiatry, The University of Tokyo Hospital, Japan, 5Center for Basic Technology Research, Tokyo Metropolitan Institute of Medical Science, Japan, 6Department of Biosciences, School of Science and Engineering, Teikyo University, Japan

S5-3 Hypomethylated DNA of the sperm genome: a possible risk for neurodevelopmental diseases
Noriko OSUMI
Dept. of Devel. Neurosci., Tohoku Univ. Sch. of Med., Sendai, Japan

S5-4 Altered functional and structural connectivity as imaging endophenotype for autism spectrum disorder
Susan Shur-Fen GAU
Department of Psychiatry, National Taiwan University Hospital and College of Medicine, Taipei, Taiwan

Discussant: Shiro SUDA (Department of Psychiatry, Jichi Medical University, Japan)
Novel treatment strategies based on the advanced understanding of neurobiological mechanisms in obsessive-compulsive spectrum disorder

Organizer / Chair: Hisato MATSUNAGA (Department of Neuropsychiatry, Hyogo College of Medicine, Japan)
Co-chair: Tomohiro NAKAO (Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University, Japan)

Obsessive-compulsive disorder (OCD) is a relatively common and frequently debilitating neuropsychiatric disorder that affects approximately 2% of the general population. OCD is characterized by intrusive and unwanted obsessions and compulsions, and by a waxing and waning course of symptoms that rarely remit. Standardized treatments for OCD, including drugs (e.g., selective serotonin reuptake inhibitors; SSRIs) and cognitive-behavioral therapy (CBT), are well established and used worldwide. However, the effectiveness of current OCD pharmacotherapy is limited. To optimize this type of therapy, cross-sectional or longitudinal evaluations of individuals with OCD are needed, which focus on comprehensive psychopathological features such as primary or secondary comorbid disorders (e.g., tic-related-OCD, major depression), antecedent traumatic events, and the brain mechanisms that mediate temporal transitions, according to the duration of untreated illness or the chronic course of OCD. These clinical factors should be taken into account in developing an adequate treatment regimen for OCD patients who show insufficient responses to the standardized pharmacotherapy for OCD.

DSM-5 categorizes OCD as an obsessive-compulsive and related disorder (OCRD), based on the concept of an obsessive-compulsive spectrum. Among OCRDs, hoarding disorder, which is frequently comorbid with OCD, has been characterized as a treatment refractory disorder; the neurobiological mechanism of the disorder still remains to be elucidated. Thus, comorbidity of hoarding disorder or hoarding symptoms may also be associated with treatment resistance in patients with OCD.

Therefore, it may be crucial to consider such cross-sectional heterogeneity of OCD or OCRDs to fully understand the biological mechanisms underlying these disorders, and to develop more effective treatment strategies (including novel treatment approaches such as adaptation to neuromodulation). In our symposium, we will discuss tic-related and trauma-related OCD and hoarding disorder, focusing particularly on novel treatment strategies based on the advanced understanding of each condition’s neurobiological mechanisms. We will also discuss neuromodulation as a possible treatment option for treatment-refractory patients with OCD or OCRD.

S6-1 A biological investigation of OCD and hoarding disorder by neuroimaging methods
Hirofumi TOMIYAMA, Tomohiro NAKAO, Keitaro MURAYAMA
Kyushu University Hospital, Japan

S6-2 Evaluations of hemodynamic changes using Near-Infrared Spectroscopy among patients with tic-related obsessive-compulsive disorder (OCD)
Keiichiro MUKAI1, Akihiro NAKAJIMA1, Yoshinobu YANAGISAWA1, Kensei MAEBAYASHI1, Yoshikazu YOSHIDA1, Hayashida KAZUHISA1, Naomi Matsuura2, Matsunaga HISATO1
1Department of Neuropsychiatry, Hyogo College of Medicine; 2Faculty of Education, Mie University, Japan

S6-3 Electroconvulsive Therapy as a Potential Treatment for Refractory OCD
Anri WATANABE, Takashi NAKAMAE
Department of Psychiatry, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, Japan

S6-4 Developing novel treatment strategies for OCD by utilizing rodent models: a therapeutic potential of adenosine A2A receptor antagonism
Nozomi ASAOKA1,2, Chihiro YABE-NISHIMURA1, Shuji KANEKO1
1Department of Pharmacology, Kyoto Prefectural University of Medicine, Kyoto, Japan
2Department of Molecular Pharmacology, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan

Discussants: Takashi NAKAMAE (Department of Psychiatry, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Japan)
Eiji SHIMIZU (Department of Cognitive Behavioral Physiology, Graduate School of Medicine, Chiba University, Japan)
Advances in research of psychopharmacology have brought the hope for the treatment of psychiatric disorders. With the development of brain image techniques clinicians can learn more detailed information from the brain of psychiatric patients and devise more effective treatment strategies for them. The purpose of this symposium is to provide the state-of-art knowledge on treatment response, cognitions, and pathophysiology of the psychiatric illnesses that have been discovered with brain imaging. This symposium will provide the knowledge on, not only brain imaging itself, but also its application to clinical practice as well as research.

The first speaker will discuss predictors of antipsychotic responsiveness in first episode psychosis (FEP). It has been reported that dopaminergic activity in schizophrenia is related to responsiveness to antipsychotic drugs. For example, patients who respond well to first-line antipsychotic drugs show increased presynaptic dopamine synthesis, while treatment-refractory patients with schizophrenia exhibited a similar level of dopamine activity. The refractory schizophrenia is considered to be related with glutamatergic abnormality. Regarding antipsychotic responsiveness, different neurobiology may underlie schizophrenia between treatment responsive and treatment refractory patients. In this presentation, the speaker will review the evidence on presynaptic dopamine activity and glutamate level measured in drug-naïve FEP and their relationship with antipsychotic responsiveness.

The second speaker will be “Neurobiology of cognitive deficits and treatment implications”. The evidence from several lines of research suggests the differential neurobiology for positive and cognitive symptoms of schizophrenia; while decreased dopamine release is considered to underlie the neurocognitive symptoms, neuropeptides play a critical role in the pathogenesis of social cognitive deficits typically seen in schizophrenia. This difference in neurobiology makes a strong case for rational use of add on interventions for the treatment of cognitive deficits in schizophrenia. Psychostimulants in the form of dopamine agonists and neuropeptides oxytocin - vasopressin are potential novel treatments for cognitive deficits in schizophrenia. This talk will focus on the neuroimaging studies examining the neurobiology of cognitive deficits and potential treatment for the same.

The third speaker will show the recent data on AMPA receptors (AMPAR) in multiple psychiatric illnesses. With the development of a new ligand, we can visualize AMPAR in the living human brain. The results from our pilot study have already revealed distinct patterns of AMPAR distributions in major psychiatric illnesses, including schizophrenia. Clinical relevance of these findings will also be discussed.

The last speaker will present “glutamatergic dysfunction in treatment-resistant schizophrenia: a 3T proton MRS study”. In terms of antipsychotic treatment response, patients with schizophrenia can be classified into three groups: (1) responsive to first-line antipsychotics (non treatment-resistant schizophrenia [nTRS]), (2) treatment-resistant to non-clozapine (CLZ) antipsychotics but CLZ-responsive (non-URS), and (3) treatment-resistant to both non-CLZ antipsychotics as well as CLZ (ultra treatment-resistant schizophrenia [URS]). The glutamatergic hypothesis may account for this classification. Thus, the aim of this presentation is to systematically review proton magnetic resonance spectroscopy (1H-MRS) studies to compare glutamatergic neurometabolite levels among these three patient groups and healthy controls (HCs).
Cellular and molecular signatures of psychiatric disorders in postmortem human brain

Psychiatric disorders are largely multi-factorial conditions, and the identification of both genetic and environmental factors are important to better understand their pathophysiology and to develop improved treatment strategies. In particular, the impact of various environmental factors that influence the individual during early development, childhood, youth and adulthood, and their relative importance for the development and course of each specific psychiatric disorder is important to assess.

Animal experiments allow for studies of affected brain regions with many methods that cannot be applied on living human subjects. From such experiments, we can learn detailed pathophysiological pathways of disease, but it may be difficult to translate these findings to the clinical setting. In contrast to several somatic diseases, where biochemical tests can show the similarities with the corresponding human conditions, the animal models of psychiatric diseases such as depression suffer from gold standard markers of disease to prove the model’s resemblance of the same condition in humans.

Non-invasive visualization approaches with e.g. magnetic resonance imaging techniques have contributed substantially to our understanding on the pathology of many psychiatric diseases, but these studies cannot provide cellular or molecular pathologies in the brain.

Postmortem human brain studies have been conducted for more than a century to elucidate the underlying pathologies of various psychiatric and neurologic diseases, but these have been dominated by studies of structural changes. In recent years, methodological improvements have allowed for the application of a variety of analyses of postmortem brain tissue, and today reliable information from genomics, transcriptomics and proteomics can be obtained and used to characterize specific psychiatric conditions. However, for postmortem human studies it is crucial that the regions studied are precisely neuroanatomically identified, that the postmortem condition of the tissue is good, and that the phenotyping is accurate and comprehensive.

At this symposium, four researchers present studies on postmortem human brain with different purposes and approaches. The attendee will learn the possibilities that such studies can offer, but also explain important pitfalls and shortcomings, and how to avoid these.

S8-1 Decreased brain pH as a shared endophenotype of psychiatric disorders
Hideo HAGIHARA, Tsuyoshi MIYAKAWA
Division of Systems Medical Science, Institute for Comprehensive Medical Science, Fujita Health University, Aichi, Japan

S8-2 Phenotyping and assessment of confounders in human postmortem brain studies
Henrik DRUID1, Kanar ALKASS1, Nenad BOGDANOVIC2
1Dept of Oncology-pathology, Karolinska Institutet, 2Dept of NVS, Karolinska Institutet, Sweden

S8-3 Influence of alcohol on hippocampal neurogenesis
Kanar ALKASS1, 2, Gopalakrishnan DHANABALAN1, Tara Wardi LE MAITRE1, Samuel BERNAND4, Nenad BOGDANOVIC3, Henrik DRUID1
1Karolinska Institutet, 2Forensic Medicine Laboratory, Department of Oncology-Pathology, 3Neurogeriatric Clinic, Theme Aging, Karolinska University Hospital, 4Institut Camille Jordan, CNRS UMR 5208, University of Lyon

S8-4 Transcriptional signatures of opioid misuse with human postmortem medulla
Shinya KASAI1, 2, Nenad BOGDANOVIC3, Kanar ALKASS1, Henrik DRUID1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, JAPAN, 2Department of Oncology-Pathology, Karolinska Institutet, SWEDEN, 3Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, SWEDEN

Discussants: Shigeki YAMAGUCHI (Department of Anesthesia and Pain Medicine, Dokkyo Medical University, Japan)
Hiroki TANAKA (Department of Legal Medicine, Asahikawa Medical University, Japan)
Translation of Research to Clinical Practice

Organizer / Chair: Roumen MILEV (Department of Psychiatry, Queen’s University, Canada)
Co-chair: Tadafumi KATO (Laboratory for Molecular Dynamics of Mental Disorders, RIKEN Center for Brain Science, Japan)

Background: Mood disorders are highly prevalent, associated with significant personal and societal burden. Depression is one of the leading causes of disability world-wide. Bipolar Disorders are associated with high levels of recurrence and pose treatment challenges. Although there are numerous treatment modalities and compounds available, the outcome results are underwhelming. There are no biological tests or markers to predict therapeutic response to a treatment, we don’t know how to predict severity of depression or our next treatment step. We don’t have a good understanding of how to effectively implement evidence-based treatment guidelines, how to change physician prescribing behaviour, or how to use mobile health technology to inform our choices. There is an exponential growth in research endeavours, but their translation to clinical practice, and patient outcomes is severely lacking. This symposium sets a high standard of goals and objectives. Several primers of successful translation of research findings into clinical practice in mood disorders will be presented. Development of evidence-based and clinical practice informed treatment guidelines for management of patients with mood disorders is an example of improving our approach to treatments, but their implementation has not been satisfactory. In this symposium we will present how a point of care app can shift physician prescribing behaviour to become aligned with the guidelines. We will explore the use of mobile health technologies in the clinical decision making and influencing the treatment outcomes. A focus on utilization of machine learning paradigms will exemplify predicting depression severity. Preliminary results of predictors of treatment response in major depressive disorders, as discovered by the large Canadian Biomarkers Integrated Network in depression (CAN-BIND) series of studies will be presented as well. We will have ample opportunities for discussion and commentaries.

Learning Objectives: After attending this symposium the participant will be able:

1. To review CANMAT/ISBD treatment recommendations for management of bipolar disorder
2. To demonstrate the feasibility of using a point of care APP to change physician prescribing behaviour
3. To understand the various approaches to quantify psychiatric disorder severity utilizing information communication technologies.
4. To discuss the difficulty and potential benefit/risk of utilizing machine learning in the psychiatry field.
5. To understand the goals and results of the large CAN-BIND project and the importance of identification of biomarkers for treatment response
6. To understand the concept of digital phenotyping applied to mental health research.
7. To explore the use of mobile health technologies (M-Health) for patient engagement, measurement-based care and monitoring of wellness or relapse in mood disorders

S9-1 Evidence Based Guideline Concordance Care for Bipolar Disorder: Can Point of Care Applications Help?
Lakshmi N. YATHAM
Department of Psychiatry, University of British Columbia, Canada

S9-2 Project for Objective Measures Utilizing Computational Psychiatry Technology (PROMPT): The Prospect of New Approaches to Assess Depression Severity
Taishiro KISHIMOTO
Department of Neuropsychiatry, Keio University School of Medicine, Japan

S9-3 CAN-BIND: Identifying Biomarkers for Treatment Response in Depression
Roumen MILEV
Department of Psychiatry, Queen’s University, Canada

S9-4 Hype or Revolution? How Digital Phenotyping and Mobile Health Technologies are Transforming Research on Mood Disorders
Claudio N SOARES, Elisa BRIETZKE
Department of Psychiatry, Queen’s University School of Medicine, Canada

Discussant: Carlos A ZARATE (NIH / NIMH, USA)
Selective serotonin reuptake inhibitors (SSRIs) ameliorates depressive symptoms in humans. However, the therapeutic effects are limited due to the delayed effects and side effects. There are two origins of serotonergic projections to the forebrain, the dorsal raphe nucleus (DRN) and median raphe nucleus (MRN), and each nucleus projects to different brain regions, with some overlapping. Moreover, seven families of serotonin 5-HT receptors comprising a total of 14 subtypes have been identified, and each subtype has distinct functions. Given the complexity of serotonergic system, to dissect the system might make it possible to avoid side effects and to exert rapid effects. In this symposium, Yu Ohmura will show the data indicating that distinct serotonergic pathways and specific type of 5-HT receptor regulate anxiety, impulse control, and depression. Emily Jutkiewicz will introduce the idea that a specific downstream mechanism of 5-HT1A receptors is essential to exert antidepressant-like effects. Makoto Kondo will provide an insight into the antidepressant-like effects induced by the activation of a 5-HT3 receptor-IGF1 mechanism. Takeshi Inoue will criticize these findings from the view of psychiatrists and suggest the direction of future research.

S10-1 Distinct serotonergic systems regulate anxiogenic, antidepressant-like, and anti-impulsive effects
Yu OHMURA
Department of Neuropharmacology, Faculty of Medicine and Graduate School of Medicine, Hokkaido University, Sapporo, Japan

S10-2 Novel mode of antidepressant action based on exercise-induced beneficial effects
Makoto KONDO, Shoichi SHIMADA
Department of Neuroscience and Cell Biology, Graduate School of Medicine, Osaka University, Osaka, Japan

S10-3 Neuropsychopharmacological effects of a repurposed lithium-like mimetic
Trevor SHARP
Department of Pharmacology, University of Oxford, UK

Discussants: Takeshi INOUE (Department of Psychiatry, Tokyo Medical University, Japan)
Koji YANO (SHIONOGI & CO., LTD., Japan)
The multidimensional approach to metabolic disturbance in schizophrenia

Organizer / Chair: Mong-Liang LU (Department of Psychiatry, Wan Fang Hospital & School of Medicine, College of Medicine, Taipei Medical University, Taiwan)

Co-chair: Takashi WATANABE (Department of Psychiatry, Dokkyo Medical University School of Medicine, Japan)

The metabolic syndrome is highly prevalent in patients with schizophrenia patients and represents an enormous source of cardiovascular risk and mortality. Appetite-regulating hormones, pharmacodynamics and alterations in glucose metabolism may underlie the negative effect of antipsychotic medications. In this symposium, we provide the multidimensional approach to metabolic disturbance in schizophrenia from the aspects of epidemiology, therapeutic drug monitoring, and potential biomarkers.

Prof. Lu ML: Acyl/Desacyl ghrelin ratio as a potential biomarker for metabolic syndrome in patients with schizophrenia

Circulating ghrelin is presented in two major forms, acyl ghrelin and desacyl ghrelin. Both ghrelin forms can mediate energy metabolism and may act antagonistically. This suggests a crucial role for the acyl/desacyl ghrelin ratio in the energy homeostasis. In this study, we found that acyl/desacyl ghrelin ratio was more strongly correlated with metabolic syndrome components than total ghrelin and desacyl ghrelin with them. And acyl/desacyl ghrelin ratio had a higher discriminative ability to differentiate patients with metabolic syndrome from those without metabolic syndrome than either total ghrelin or desacyl ghrelin. Our study results suggest that acyl/desacyl ghrelin ratio may be a preferential marker of metabolic syndrome in patients with schizophrenia.

Prof. Wu TH: Therapeutic Drug Monitoring of olanzapine and its desmethylated metabolite in schizophrenic patients

Therapeutic drug monitoring of olanzapine (OLZ) and its desmethylated metabolite (DMO) were applied to identify the roles of the olanzapine methylation metabolism in metabolic and efficacy regulation of schizophrenic patients. In summary, our studies revealed that COLZ ≥ 22.77ng/mL was a positive predictor of therapeutic efficacy in patients with schizophrenia and it was proposed that the optimal OLZ treatment should maintain concentrations ratio of OLZ/DMO between 3 and 6 to maximize the clinical efficacy and minimize the metabolic side effects.

Dr. Chen BY: Orexin-A may plays the role in regulating metabolic status in patient with schizophrenia taking antipsychotics

Orexin-A promotes thermogenesis and energy expenditure via increasing sympathetic tone and this effect is supressed by antipsychotics treatment. We found that orexin-A is up-regulated in antipsychotics-treated patients with schizophrenia, especially for the group taking less obesogenic antipsychotics. Furthermore, higher orexin-A levels are associated with better metabolic outcomes. These observations suggest orexin-A may have a protective effect against the development of metabolic abnormalities in schizophrenia patients receiving long-term antipsychotic treatment.

Dr. Sugai T: Characteristics of physical risk in Japanese patients with schizophrenia

We investigated the risk of metabolic syndrome and underweight by questionnaire, and there were 7655 outpatients and 15461 inpatients with schizophrenia. The result revealed that metabolic syndrome prevalence in Japanese outpatients was approximately 3-fold higher than in inpatients. On the other hand, the prevalence of underweight and under-nutrition in Japanese inpatients with schizophrenia was higher than in outpatients and the general population. The results also suggest that the difference in physical health between outpatients and inpatients with schizophrenia may be related to the mental health system in Japan. We should pay more attention to the risk of physical disease in Japanese patients with schizophrenia, considering the difference in health characteristics between outpatients and inpatients in clinical practice.

S11-1 Characteristics of physical risk in Japanese patients with schizophrenia

Takuro SUGAI1, Yutaro SUZUKI1, Manabu YAMAZAKI1, Kazutaka SHIMODA1, Takao MORI2, Hiroshi MATSUDA2, Norio SUGAWARA3, Norio Yasui FURUKORI2, Kurefu OKAMOTO2, Yuji OZEKI3, Toyoshi SAGAI4, Toshiyuki SOMEA1

1Department of Psychiatry, Niigata University Graduate School of Medical and Dental Sciences, Niigata, Japan
2Department of Psychiatry and Psychiatric Hospital Association, Tokyo, Japan
3Department of Psychiatry, Dokkyo Medical University School of Medicine, Mibu, Japan
4Department of Psychiatry, Shiga University of Medical Science, Otsu, Japan

S11-2 Therapeutic Drug Monitoring of Olanzapine and its Desmethylated Metabolite in Schizophrenic Patients

Tzu-Hua WU

Department of Clinical Pharmacy, School of Pharmacy, College of Pharmacy, Taipei Medical University, Taiwan

S11-3 Relationship between acylated/desacylated ghrelin ratio and metabolic syndrome in patients with schizophrenia

Mong-Liang LU1, 2

1Department of Psychiatry & Psychiatric Research Center, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan
2Department of Psychiatry, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan

S11-4 The metabolic protective effect of elevated Orexin-A levels in patients with schizophrenia taking antipsychotics

Po-Yu CHEN1, 2, Chin-Kuo CHANG1, Chun-Hsin CHEN3, 4, Mong-Liang LU3, 4, Chih-Chiang CHIU2, 4, Shih-Ku LIN2, 4, Ling-Ling HWANG2, 4, Ming-Chyi HUANG2, 4

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3Department of Health and Welfare, University of Taipei, Taipei, Taiwan
4Department of Psychiatry, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan

Discussants: Catherine WEISS (Otsuka Pharmaceutical Development & Commercialization Inc, USA)
Michiko FUJIMOTO (Department of Psychiatry, Osaka University Graduate School of Medicine, Japan)
Mental, neurological and substance use disorders have been revealed to contribute to the Global Burden of Disease. To overcome this situation and to achieve cost-effective community care improvement respecting for human rights in various cultural contexts, evidence-based interventions including psychiatric pharmacotherapy along with community engagement and capacity development are prerequisite. Especially in recent years, in the era of global drug development and worldwide big data analysis, both of medical professionals and patients are drastically moving around the world. This has been caused by rapid development of information technology facilitating global communications, as well as the growth of easy and inexpensive transportation means. Some are seeking for better working places or better healthcare services; others are evacuating from conflict area or traveling for disaster relief. Considering such situations, we have to seek for evolutionary change of drug development strategies, along with model change of community care, with enlightening perspective of psychiatric pharmacotherapy to achieve Global Mental Health.

In this symposium, speakers from Asian countries will introduce their experience in their activities to facilitate community care, including innovative psychiatric pharmacotherapy strategies, towards the achievement of Global Mental Health: Chieko Kurihara, Senior Researcher, National Institute for Quantum and Radiological Sciences and Technology will present opening remarks of this symposium and provide a view of community care, along with global drug development and psychiatric pharmacotherapy strategies towards Global Mental Health.

Tae-Yeon Hwang, Director of Mental Health Services and Planning, National Center for Mental Health, South Korea, will introduce his activities in newly-built National Center, in their new era of revised Mental Health Act, as well as his international activities in collaborative partnership with Asian psychiatrists for facilitating community care, clinical research as well as improvement of psychiatric pharmacotherapy in each country.

Tiur Sihombing, Duren Sawit Narcotic and Mental Hospital, Indonesia, will introduce her hospital organization to provide mental health service collaborating with extensive specialists of comorbidities, such as internists, pediatricians, gynecologists, etc.(consultation liaison psychiatry). Also she will introduce their engagement in rational drug use, according to guidelines, as well as community empowerment in low resource settings.

Yang Yen-Kuang, Professor of the Department of Psychiatry, National Cheng Kung University will introduce his long-standing contribution to mental health in Tainan city sometimes collaborating with local government as well as facilitating clinical trial for implementing new medications. He will show some key strategies for successful evidence-based community care, along with innovative drug development and translational research, based on his expertise and experience.

Kazutaka Shimoda, Professor, Chairman of the Department of Psychiatry, Dokkyo Medical University, will present overviewing summary of this session and closing remarks.
The Global Collection Initiative for psychiatric genetics
From genetic variation to disease mechanisms

Organizer / Chair: Yasue HORIUCHI (Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Japan)
Co-chair: Hiroshi YONEDA (Department of Neuropsychiatry, Division of Comprehensive Medicine, Osaka Medical College, Japan)

Schizophrenia is a highly inheritable disorder, human genetics and genomics is a natural and powerful tool to study this disorder. Large-scale genetics studies have identified hundreds of loci underlying schizophrenia and provided initial insights into their disease pathogenesis. However, most of these studies were restricted to samples of European ancestry, limiting both scientific knowledge and its application from most of the world’s population. To address this important gap in scientific knowledge while advancing global mental health equity, the Stanley Center has launched a global initiative to increase sample sizes for psychiatric research within diverse populations across the world.

Our efforts in mapping the genetic variants that drive risk in the population have taken a more global view, with the coordination and completion of the pan-Asian genome-wide association study of schizophrenia.

In our first study, Asians showed highly consistent effect sizes to those in Europeans, suggesting that the genetic basis of schizophrenia and by extension its biology is broadly shared across major world populations. Integrating the pan-Asian results with the European schizophrenia meta-analysis identifies almost 90 new schizophrenia genetic loci.

These initial investigations into the genetics of schizophrenia in Asia have demonstrated the value of a global perspective on genetic risk. To fully capture genetic risk for schizophrenia and other psychiatric diseases, we have launched the SC Global Collection Initiative, which aims to collect ~100,000 samples over the next four years. These efforts focus on diverse populations, including multiple collection efforts in Ethiopia, Kenya, South Africa, Uganda Mexico, China, Japan, Australia, and Finland.

In this symposium, we will discuss the current status of our project from China, USA and Japan.

S13-1 Progress of the International Psychiatric genetics consortium in Japan
Yasue HORIUCHI1, Makoto ARAI1, Masanari ITOKAWA1, Akira SAWA2, Teruhiko HIGUCHI3
1Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Japan, 2Johns Hopkins University School of Medicine and Bloomberg School of Public Health, USA, 3The National Center of Neurology and Psychiatry, Japan

S13-2 Comparative genetic architectures of schizophrenia in East Asian and European populations
Hailiang HUANG1, 2, 3
1Stanley Center for Psychiatric Research, Broad Institute, 2Massachusetts General Hospital, 3Harvard Medical School, USA

S13-3 Pharmacogenomics and personalized medicine study of schizophrenia in Chinese population
Shengying QIN
Bio-X Institutes of Shanghai Jiao Tong University, China

S13-4 Neuropsychiatric Genetics of African Populations-Psychosis (NeuroGAP Psychosis): A case-control GWAS in Sub-Saharan Africa
Bizu GELAYE1, 2, Dickens AKENA1, Lukoye ATWOLI1, Symon M KARIUKI1, 6, Charles R.J.C. NEWTON6, 6, Solomon TEFERRA1, Dan J. STEIN6, Zukiswa ZINGELA6, Anne STEVENSON1, 3, Rocky E. STROUD3, 3, Kristianna POST1, 3, Lori B CHIBNIK1, 2, Karestan C. KOENEN1, 2
1Harvard T. H. Chan School of Public Health and Broad Institute, 2Broad Institute of MIT and Harvard, Cambridge, USA, 3College of Health Sciences, Makerere University, Kampala, Uganda, 4Moi University College of Health Sciences, Eldoret, Kenya, 5KEMRI-Wellcome Trust Research Programme, Kilifi, Kenya, 6University of Oxford, Oxford, UK, 7College of Health Sciences, Addis Ababa University, Addis Ababa, Ethiopia, 8University of Cape Town, Cape Town, South Africa, 9Walter Sisulu University, Mthatha, South Africa

Discussants: Akira SAWA (Johns Hopkins University School of Medicine and Bloomberg School of Public Health, USA) Daisuke NISHIZAWA (Tokyo Metropolitan Institute of Medical Science, Japan)
Schizophrenia is a fairly common and devastating mental illness characterized by positive and negative symptoms, with cognitive dysfunction. Patients with schizophrenia are usually treated with antipsychotic medication. However, 10-30% of schizophrenic patients are treatment resistant, and the pharmaceutical industry still considers schizophrenia as an attractive target for drug design and there are many novel agents in early development. Recently, some abnormalities in neural circuits and brain networks are proposed as objective biomarkers for positive symptoms, such as hallucinations or delusions. These biomarkers could be used in different stages of clinical drug development (mechanism of action, target engagement, use as diagnostic test, enrichment of study populations, stratification for subgroups, safety and efficacy markers, etc.). In addition, these abnormalities can also be studied in animal models to facilitate the discovery of new targets and drug candidates. The purpose of this symposium is to discuss the novel strategy to treat hallucinations and delusions in schizophrenia, based on the findings obtained from translational researches using advanced techniques to study neural circuits and brain networks. Potential use of the biomarkers in drug development would also be discussed. The first speaker will review the recent advancement of connectivity studies of hallucinations and delusions in schizophrenia. The topic includes salience-associated networks underlying psychosis and structural and functional connectivity associated with abnormal conservatism bias and the jumping to conclusions bias in patients. It is reported that 60-90% of patients with schizophrenia suffer from auditory hallucinations. It is hypothesized that auditory-verbal hallucinations are caused by an inner-speech abnormality. The second speaker will introduce the project exploring the causes of auditory-verbal hallucinations with a novel electrophysiological marker of inner-speech. On the other hand, patients with schizophrenia have been hypothesized to have a functional impairment in filtering irrelevant sensory information, which may result in hallucinations and delusions. The third speaker will review possible association between the auditory gating deficits and positive symptoms, focusing on the abnormalities in spontaneous gamma activity in schizophrenia. Finally, the fourth speaker will review the abnormal thalamocortical networks in schizophrenia. The topic includes the translational research using a novel mouse model to study roles of parvalbumin-expressing GABAergic neurons in the pathophysiology of schizophrenia. We hope that this symposium will help the audience to understand the recent advancements of translational researches focusing on abnormalities in neural circuits and brain networks to treat hallucinations and delusions in schizophrenia.
The different effects of ketamine and its enantiomers on chronic stress induced-depressed animal models and clinical antidepressant and anti-suicidal effect studies in acute and maintenance therapy of patients with treatment resistant depression

Organizer / Chair: Tung-Ping T SU (Department of Psychiatry, Cheng-Hsin General Hospital, Taipei, National Yang-Ming University, Taiwan)
Co-chair: Hisashi MORI (Department of Molecular Neurosciences, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Japan)

The N-methyl-D-aspartate (NMDA) receptor antagonist ketamine exerts rapid and sustained antidepressant effects in depressed patients. Ketamine is a racemic mixture of equal amounts of enantiomers, (R)-ketamine and (S)-ketamine. The neural mechanisms that underlie different effects of these enantiomers remain unclear. Recent animal studies has demonstrated that (R)-ketamine has greater potency and longer-lasting antidepressant effects than (S)-ketamine. However, neural mechanisms that underlie different effects of these enantiomers still remain unclear. Further, GluN2D is a subunit of NMDA receptor, which plays an important role for the fast antidepressant effect of ketamine. The first study, presented by Dr. Ide to investigate the rapid and sustained antidepressant cognitive impairment effects of these enantiomers on the mice with and without GluN2D (wildtype) using TST and Novel Object Recognition Test (NORT) respectively. The second speaker Ago using chronic corticosterone–induced (CORT) mouse model depression confirms that (R)-ketamine exerts higher potency in antidepressant effects than (S)-ketamine, also do the metabolites (2R, 6R, Hydroxynorketamine). He has tried to use the technique of microdialysis to analyze the concentration of neurotransmitters related to the different enantiomers in order to clarify the common and distinct neural mechanisms for antidepressant effects of ketamine and its enantiomers. Up to date, there has no clinical trial of (R)-ketamine in humans, the third speaker Chen conducted a double-blind, randomized ketamine vs. placebo study and tried to understand how the changes of brain connectivity using fMRI technique to support the PFC-related circuit modulation associated with the rapid antidepressant effects of ketamine. The final speaker Su initiated a maintenance therapy for ketamine responder by a double blind, RCS, with D-cycloserine vs. placebo for 7 week study to see if the partial agonist of glycine site on NMDA receptor could continue to sustain the response of ketamine on treatment resistant depression.

S15-1 The role of NMDA receptor GluN2D subunit in the effects of ketamine and its enantiomers
Soichiro IDE, Kazukata IKEDA
Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

S15-2 Differential behavioral and neurochemical effects of ketamine enantiomers and their metabolites
Yukio AGO, Hitoshi HASHIMOTO
1Lab. of Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan.
2Laboratory of Molecular Neuropharmacology, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan.
3Molecular Research Center for Children’s Mental Development, United Graduate School of Child Development, Osaka University, Osaka, Japan.
4Division of Bioscience, Institute for Datability Science, Osaka University, Osaka, Japan.
5Transdimensional Life Imaging Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University, Osaka, Japan

S15-3 Antisuicidal Effect, BDNF Val66Met Polymorphism, and Low-Dose Ketamine Infusion: Adjunctive Ketamine Study of Taiwanese Patients with Treatment-Resistant Depression
Mu Hong CHEN, Tung-Ping SU
Department of Psychiatry, Taipei Veterans General Hospital, Taiwan

S15-4 Maintenance of Antidepressant and Antisuicidal effects by D-cycloserine among low-dose ketamine responders of treatment-resistant depression: a randomized, double-blind study
Tung-Ping T SU, Mu-Hong CHEN, Chih-Ming CHEN, Cheng-Ta LI, Wei-Chen LIN, Ya-Mei BAI
1Department of Psychiatry, Cheng-Hsin General Hospital, Taipei, Taiwan.
2Division of Psychiatry, Faculty of Medicine, National Yang-Ming University, Taipei, Taiwan.
3Department of Psychiatry, Taipei Veterans General Hospital, Taipei, Taiwan.
4Institute of Brain Science, National Yang-Ming University, Taipei, Taiwan.
5Department of Medical Research, Taipei Veterans General Hospital, Taipei, Taiwan

Discussant: Nagahide TAKAHASHI (Hamamatsu University School of Medicine, Japan)
We are always receiving many and various stresses. Stresses sometime induce depressive disorder and anxiety, fall to drug addiction. Many patients are not received efficient therapy, since mechanism of onset of depressive disorders anxiety is not completely clarified, especially induced by stresses. Further many factors could be involved for the onset depressive disorders and/or anxiety, cocaine or methamphetamine, abuse, neglect, gene, environment, trauma, gender and etc. However, we do not perfect medical tools for the depression and/or anxiety. Here, we will focus to gender differences in the depression, GluK3-containing kainate, genomic factor of Shati/Nat8L. We would like to discuss the mechanism of depression and anxiety, in order to novel medical tools in near future.

S16-1 GluK3-containing kainate receptors influence the anxiolytic-like activities in mice
Miho TERUNUMA1, Izumi IIDA1, Masahiko WATANABE2, Kenji SAKIMURA3
1Division of Oral Biochemistry, Niigata University, Niigata, Japan, 2Department of Anatomy, Hokkaido University School of Medicine, Japan, 3Department of Animal Model Development, Brain Research Institute, Niigata University, Japan

S16-2 Sex difference in the glutamate-glutamine transfer in animal model of depression
Akiko SHIMAMOTO1, Virginie RAPPENEAU1, Havisha MUNJAL1, Tonie FARRIS1, Cindy MOORE1, Charles K MESHUL2, 3
1Department of Neuroscience and Pharmacology, Meharry Medical College, USA, 2Department of Behavioral Neuroscience, Oregon Health and Science University, USA, 3Veterans Affairs Portland, USA

S16-3 Overexpression of striatal Shati/Nat8l induces vulnerability to depressive behavior
Atsumi NITTA1, Miyanishi HAJIME1, Kyosuke UNO2
1Dept of Pharmaceutical Thera & Neuropharmacol, Fac of Pharmaceutical Sci. Grad Sch of Med and Pharm Sci.University of Toyama, Toyama, Japan, 2Laboratory of Molecular Pharmacology, Faculty of Pharmaceutical Sciences, Setsunan University, Japan

Discussants: Kazuto KOBAYASHI (Department of Molecular Genetics, Fukushima Medical University, Japan) Kiyoyuki KITAICHI (Department of Biomedical Pharmaceutics, Gifu Pharmaceutical University, Japan)
Clinical research of gut-microbiota-brain axis

Organizer / Chair: Chun-Hsin CHEN (Department of Psychiatry, Municipal Wan-Fang Hospital, Taipei Medical University, Taiwan)
Co-chair: Katsuji NISHIMURA (Department of Psychiatry, Tokyo Women’s Medical University, Japan)

Background: Accumulating evidence indicates that the gut microbiota can communicate with central nervous system, and thereby influences brain function and behavior, including mood symptoms. Preclinical studies have shown that consumption of probiotics may alter brain functions and reduce anxiety- or depression-like behaviors. Objective: The symposium aims to demonstrate some evidence of relationships between mood symptoms and microbiota, which may be significantly affected by diet or probiotics, in diverse subjects. First, Dr Okubo will report the association of fear of cancer recurrence (FCR) with omega-3 PUFAs and gut microbiota among breast cancer survivors. FCR among breast cancer survivors especially with chemotherapy history could be controlled by prudent dietary modification considering PUFAs and gut microbiota. Nutritional intervention considering PUFAs and probiotics to alleviate FCR will be proposed in the symposium. Second, Dr Kuo will report the comparisons of consumption of nitrated cured meat and composition of microbiota between patients with mood disorder and healthy control. In addition, peripheral gene expression patterns in patients with bipolar disorder during acute versus remission status will be evaluated. Finally, potential relationships between microbiota targets, nitrated meat consumption, and gene expression in human samples will be explored. Third, Dr Chen will review consumptions of probiotic to alleviate depressive symptoms in different kinds of participants and report meta-analysis of these human studies. Finally, a pilot study augmenting Lactobacillus plantarum PS128 in patients with major depressive disorder and stabilized antidepressant treatment will be reported.

S17-1 Fear of cancer recurrence among breast cancer survivors could be controlled by prudent dietary modification considering polyunsaturated fatty acids and gut microbiota.
Ryo OKUBO, Matsuoka J YUTAKA
Div. Health Care Research, National Cancer Center, Japan, Tokyo, Japan

S17-2 Diet and gut-microbiota in mood disorders
Po-Hsiu KUO1, 2
1Institute of Epidemiology and Preventive Medicine, NTU, 2Department of Public Health, National Taiwan University, Taiwan

S17-3 Application of probiotics to alleviate depressive symptoms in human
Chun-Hsin CHEN1, 2
1Department of Psychiatry, Municipal Wan-Fang Hospital, Taipei Medical University, Taiwan, 2Department of Psychiatry, School of Medicine, College of Medicine, Taipei Medical University, Taiwan

Discussant: Hiroaki TOMITA (Department of Psychiatry, Graduate School of Medicine, Tohoku University, Japan)
Advances in animal models of drug addiction

Organizer / Chair: Soichiro IDE (Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Japan)
Co-chair: Ichiro SORA (Department of Psychiatry, Kobe University Graduate School of Medicine, Japan)

Recently, various addiction problems have spread in Asian countries, and the situation is growing serious. Addiction is a condition that results when individuals ingest an addictive substance or perform a specific action that can be pleasurable but the continuous use or act of which becomes compulsive and interferes with ordinary life responsibilities. It is very important to clarify the mechanisms underlying addiction, but there are still many unclear points. Animal studies have been crucial in understanding the biology and pathophysiology of drug addiction. In this symposium, we would like to introduce the latest knowledge about addiction by the researchers who are working on elucidating the mechanisms of addiction by animal studies. We hope that not only those who are directly involved in the clinical situation, but also basic researchers who are interested in research about decision making, function and pathology of reward systems, and behavioral pharmacology will widely participate in the symposium and discuss perspectives in animal models of addiction.

S18-1  Usefulness of intracranial self-stimulation method in drug dependence research
Soichiro IDE, Kazukata IKEDA
Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

S18-2  NMDA receptor modulating agents reduce ketamine self-administration and reinstatement
Hwei-Hsien CHEN, Mei-Yi LEE, Yu-Ching HSIAO
Center for Neuropsychiatric Research, National Health Research Institute, Taiwan

S18-3  Shati/Nat8l overexpression in the medial prefrontal cortex in mice inhibits methamphetamine-induced conditioned place preference in mice
Atsumi NITTA

S18-4  Neural mechanisms of acute stress-induced enhancement of cocaine craving
Katsuyuki KANEDA
Laboratory of Molecular Pharmacology, Kanazawa University, Kanazawa, Japan

Discussant: Masahiro SHIBASAKI (Department of Pharmacology, Hoshi University, Japan)
Future Development of Biomarker in Mental disorders

Organizer / Chair: Andi Jayalangkara TANRA (Department of Psychiatry, Faculty of Medicine, Universitas Hasanuddin, Makassar, Indonesia)
Co-chair: Minoru TAKEBAYASHI (Department of Neuropsychiatry, Faculty of Life Sciences, Kumamoto University, Japan)

Currently, there is an increasing number of techniques developed for biomarker of mental disorders. One of that is the sAA (Salivary Alpha Amylase) Enzyme, which is produced by parotic gland in oral cavity. This enzyme could predict the level of stress from patients such as Psychotic, Depression, Bipolar and Anxiety through SAM (Sympathetic Adreno Medullary) system. Measuring the level of this enzyme is easy, safe and non-invasive, nonetheless the result is still in controversy.

However, the trait marker represents the properties of biological processes behavior which play antecedent and possibly the pathophysiology role of mental disorder such as schizophrenia. Therefore, serotonin transporter (SERT) system is still challenging to be explored as a biological marker of major depression, focused in animal model. Dysregulation of immune system is also closely involved in the pathogenesis of depression.

Finally, the glutamate decarboxylase like protein 1 (GADL1) variant could be used as a biomarker to predict therapeutic response to lithium maintenance treatment in bipolar I patients.

The 4 speakers will give contribution for elaborating future development of Biomarker for mental disorders and will enhance interesting discussion in our symposium.

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S19-1 Prediction of Response to TMS based on Neural Networks in Verbal Auditory Hallucinations of Schizophrenia Disorders using qEEG Cordance
Khameleon PISITTAI1, Mohammad SADIKIN1, Nurmiati AMIR1, Raldi Artono KOESTER1
1 Biomedical Doctoral Programme, Faculty of Medicine, Universitas Indonesia,
2 Department of Psychiatry, Faculty of Medicine, Universitas Indonesia,
3 Faculty of Engineering, Universitas Indonesia

S19-2 Salient and silent markers in mood disorders and relevant treatments
Chau-Shoun LEE1,2, Jung Chen CHANG3
1 Department of Psychiatry, Mackay Memorial Hospital, Taiwan, 2 Department of Medicine, Mackay Medical College, Taiwan, 3 School of Nursing, College of Medicine, National Taiwan University, Taiwan

S19-3 Development of animal models and biomarker for depression focused on serotonergic systems
Akihiro MOURI1, Kazuo KUNISAWA1,2, Hidetsugu FUJIGAKI1, Yasuko YAMAMOTO1, Kuniaki SAI TO1, Toshitaka NABESHIMA2
1 Department of Regulatory Science for Evaluation & Development of Pharmaceuticals & Devices, Fujita Health University Graduate School of Health Science, Aichi, Japan,
2 Advanced Diagnostic System Research Laboratory, Fujita Health University Graduate School of Health Science, Aichi, Japan

S19-4 Salivary Alpha Amylase (SAA) Enzyme as A Biomarker of Mental Disorders
Andi Jayalangkara TANRA, Sonny Teddy LISAL, Andi Suheyra SYAUKI
Department of Psychiatry, Faculty of Medicine, Universitas Hasanuddin, Makassar, Indonesia

Discussant: Kristian LIAURY (Department of Psychiatry, Hasanuddin University, Indonesia)
International neuroimaging big data collaborations: ENIGMA and COCORO

Organizer / Chair: Ryota HASHIMOTO (Department of Pathology of Mental Diseases, National Institute of Mental Health, National Center of Neurology and Psychiatry, Japan)
Co-chair: Michio SUZUKI (Department of Neuropsychiatry, University of Toyama Graduate School of Medicine and Pharmaceutical Sciences, Japan)

The ENIGMA (Enhancing NeuroImaging Genetics through Meta Analysis) Consortium is an international effort by leaders worldwide. The Network brings together researchers in imaging genomics, neurology and psychiatry, to understand brain structure and function, based on MRI, DTI, fMRI, genetic data and many patient populations. The ENIGMA Network has several goals: to create a network of like-minded individuals, interested in pushing forward the field of imaging genetics, to ensure promising findings are replicated via member collaborations, in order to satisfy the mandates of most journals, to share ideas, algorithms, data, and information on promising findings or methods, to facilitate training, including workshops and conferences on key methods and emerging directions in imaging genetics. ENIGMA consists of over 30 active working groups (WGs). WGs are organized into four major research cores, sixteen Disease Working groups, six Genomics Groups, four Algorithm Development Groups three Healthy Variation Groups and three Collaborations with Other Consortia. ENIGMA published fifty three papers including review articles and Editorial.

COCORO (Cognitive Genetics Collaborative Research Organization), is the largest collaborative effort in biological psychiatry in Japan. The purpose of COCORO is to elucidate mechanisms of psychiatric disorders and brain function. Researchers in various fields such as neuroscience, molecular biology, genome science, psychiatry, neuroimaging, cognitive science, neurophysiology, psychology, neuropsychopharmacology, gather and exchange pioneer and promote new research fields. The interaction between clinical and basic researchers also facilitate understanding and exchange for translation. COCORO consists of over 30 institutes in Japan and running several projects including neuroimaging, neurophysiology, neurocognition and genetics. COCORO participated more than ten projects of ENIGMA, and also COCORO independently replicated the results of ENIGMA in several projects.

In this symposium, the representative of ENIGMA, Prof. Paul Thompson introduce the outline of ENIGMA. Then, achievement of Disease Working Group in Psychiatric Disorders and Algorithm Development Groups in Diffusion Tensor Imaging will be presented. Lastly, the achievement of COCORO will be presented in conjunction with successful replication of ENIGMA studies and new results. Future collaboration between ENIGMA and COCORO for replication and harmonization each other will be discussed.

S20-1 ENIGMA and Global Neuroscience: A Decade of Large-Scale Studies of the Brain in Health and Disease across more than 40 Countries
Paul M. THOMPSON
Stevens Institute for Neuroimaging & Informatics, University of Southern California, USA

S20-2 The ENIGMA Consortium Disease Working Groups - Psychiatric Disorders
Theo G.M. VAN ERP1, 2
1Clinical Translational Neuroscience Laboratory, Department of Psychiatry and Human Behavior, University of California Irvine, Irvine, USA,
2Center for the Neurobiology of Learning and Memory, University of California Irvine, Irvine, USA

S20-3 The ENIGMA Consortium: Algorithm Development Groups and Diffusion Tensor Imaging
Neda JAHANSHAD
Mark and Mary Stevens Neuroimaging and Informatics Institute, Keck School of Medicine, University of Southern California, USA

S20-4 The ENIGMA and COCORO: Replication and Harmonization
Ryota HASHIMOTO1, 2
1Department of Pathology of Mental Diseases, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan,
2Osaka University, Japan

Discussants: Tetsuya MATSUDA (Tamagawa University, Brain Science Institute, Japan)
Masaki FUKUNAGA (Division of Cerebral Integration, National Institute for Physiological Sciences, Japan)
Schizophrenia, bipolar disorder and major depressive disorder are major neuropsychiatric disorders in world-wide. The patients with neuropsychiatric disorders should continuously take drugs to control their mental condition. Because many of the currently used neuropsychiatric drugs are symptomatic treatments that suppress the receptors and transporters. There are also severely ill patients who show poor or partial response to the drugs even if they receive appropriate medication. The key to preventing and curing neuropsychiatric disorders is to elucidate the mechanisms at molecular level. In this symposium, we will invite four speakers from Korea and Japan, and discuss about translational research for new drug development in neuropsychiatric disorders.

Professor Kim is neuropsychopharmacologist and toxicologist. He found that indoleamine 2,3-dioxygenase 1 (IDO1) gene play a crucial role in the neuropsychotoxic conditions. IDO1 is the first and rate-limiting enzyme in the L-kynurenine pathway and is induced by several pro-inflammatory cytokines, including IFNs, tumor necrosis factor, and interleukin 6. He will discuss novel drug target for bipolar disorder and serotonin syndrome.

Dr. Nagai is neuropsychopharmacologist in schizophrenia research field. His collaborators recently identified novel copy-number variation (CNV) of several gene associated with the disease, including ARHGAP10, a member of the RhoGAP superfamily. They also generated a mouse model of a patient with a CNV in the ARHGAP10 gene. He will provide exciting results regarding novel animal model of schizophrenia developed from reverse translational research.

Dr. Kunisawa is one of the excellent young investigators in the research field of major depressive disorder. The metabolism of L-tryptophan (TRP), an essential amino acid, in extrahepatic tissues proceeds through the L-kynurenine (KYN) and the serotonin (5-HT) pathways. His research group found that TRP metabolism plays a critical role in depression induced by IFN-α and physical stressor. Professor Noda is a neuropsychopharmacologist in the basic fields of psychiatric disorders (neurodevelopmental disorders, schizophrenia, stress-related disorders etc). Abnormalities of glutamate transporters (GLTs) cause some neurodevelopmental disorders, such as ADHD and schizophrenia. He found that functional roles of glial GLT in neurodevelopment under the physiological and pathological conditions using the mice with varying expression of transporter. His model may provide one useful tool for elucidating the contribution of glutamate dysfunction to the pathophysiology of psychiatric disorders, and glial GLT will be a new target molecule for their therapeutics. These findings suggest that IDO, ARHGAP10, TRP and GLT are novel target for the treatment of neuropsychiatric disorders.

**Symposium-21**

**October 12 (Sat), 8:40-10:20 / Room 6 (Fukuoka International Congress Center, 4F, 401+402)**

**Translational Research for New Drug Development in Neuropsychiatric Disorders**

**Organizer / Chair:** Toshitaka NABESHIMA (Graduate School of Health Science, Fujita Health University, Japan)

**Co-chair:** Yukihiro OHNO (Department of Pharmacology, Osaka University of Pharmaceutical Sciences, Japan)

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S21-1  **A novel animal model of schizophrenia based on copy-number variations**

Taku NAGAI1, Akira SOBUE1, Daiсuke MORI1, Kazuhiro HADA1, Jingzhu LIAO1, Bolati WULAER1, Toshitaka NABESHIMA1,4, Norio OZAKI1, Kiyofumi YAMADA1

1 Department of Neuropsychopharmacology and Hospital Pharmacy, Nagoya University Graduate School of Medicine, Nagoya, Japan

2 Department of Psychiatry, Nagoya University Graduate School of Medicine, Nagoya, Japan

3 Advanced Diagnostic System Research Laboratory Fujita Health University, Graduate School of Health Sciences, Toyoake, Japan

4 Aino University, Ibaraki, Japan

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S21-2  **Involvement of glial dysregulation of glutamatergic neurotransmission in development of behavioral abnormalities**

Yukihiro NODA, Mizuki UCHIDA

Division of Clinical Sciences and Neuropsychopharmacology, Faculty of Pharmacy, Meijo University, Nagoya, Japan

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S21-3  **Indoleamine-2,3-dioxygenase-1 is a molecular target for the protective activity of mood stabilizers against mania-like behavior induced by d-amphetamine**

Hyoun-Chun KIM1, Hai-Quyen TRAN1, Eun-Joo SHIN1, Kuniaki SAITO1, The-Vinh TRAN1, Naveen SHARMA1, Dae-Won KIM1, Soo Young CHOI1, Ji Hoon JEONG1, Choong-Gon JANG1, Toshitaka NABESHIMA3,4,5

1 Neuropsychopharmacology and Toxicology Program, College of Pharmacy, Kangwon National University, Korea

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3 Department of Biochemistry and Molecular Biology, Research Institute of Oral Sciences, College of Dentistry, Gangneung-Wonju National University, Gangneung, Korea

4 Department of Biomedical Science and Research Institute of Bioscience and Biotechnology, Hallym University, Chuncheon, Korea

5 Department of Pharmacology, College of Medicine, Chung-Ang University, Seoul, Korea

6 Aino University, Ibaraki, Japan

7 Japanese Drug Organization of Appropriate Use and Research, Nagoya, Japan

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S21-4  **The role of tryptophan metabolism in major depressive disorder**

Kazuo KUNISAWA1, Akihiro MOURI1, Aika KOSUGE1, Tsubasa IIDA1, Wulaer BOLATI1,2,3, Yasuko YAMAMOTO2, Kuniaki SAITO1,2,3, Toshitaka NABESHIMA3,4

1 Department of Regulatory Science for Evaluation & Development of Pharmaceuticals & Devices, Fujita Health University Graduate School of Health Sciences, Aichi, Japan

2 Department of Disease Control and Prevention, Fujita Health University Graduate School of Health Sciences, Aichi, Japan

3 Advanced Diagnostic System Research Laboratory, Fujita Health University Graduate School of Health Sciences, Aichi, Japan

Discussants: Wen-Sung LAI (Department of Psychology, National Taiwan University, Taiwan)

Ming-Huan CHAN (Institute of Neuroscience, National Chengchi University, Taiwan)
Molecular Pathology and Therapeutic Potentials in Schizophrenia

Organizer / Chair: Tetsuro OHMORI (Department of Psychiatry, Institute of Biomedical Sciences, Tokushima University Graduate School, Japan)

Co-chair: Yasunori MORIO (Translational Medical Center, National Center of Neurology and Psychiatry, Japan)

Schizophrenia is a complex psychiatric disorder with a lifetime morbidity rate of 0.5 —1.0%. Despite the etiological complexities of schizophrenia, accumulating evidence suggests that glutamatergic disturbances, inflammation, and alterations in one-carbon metabolism might play key roles in the pathophysiology of schizophrenia, which in turn helps us identify novel therapeutic targets. In this session, we will present our latest preclinical and human research findings to discuss novel therapeutic strategies for treatment of schizophrenia and associated psychiatric conditions.

S22-1 Inflamed brain: Targeting brain immune cells for treatment of psychiatric disorders
Atsushi KAMIYA
Department of Psychiatry and Behavioral Sciences, Johns Hopkins University School of Medicine, USA

S22-2 Glutamatergic system in schizophrenia and future perspective for the treatment
Akihito UEZATO
School of Health and Welfare, International University of Health and Welfare, Japan

S22-3 Altered one-carbon metabolism in schizophrenia and potential treatments
Shusuke NUMATA
Department of Psychiatry, Graduate School of Biomedical Science, Tokushima University, Japan

S22-4 Cognitive impairments in schizophrenia: Drug discovery strategy and potential targets
Kazutaka OHI¹, ²
¹Department of Neuropsychiatry, Kanazawa Medical University, Japan, ²Medical Research Institute, Kanazawa Medical University, Japan

Discussants: Kotaro HATTORI (Medical Genome Center, National Center of Neurology and Psychiatry, Japan)
Tetsuro KIKUCHI (New Drug Research Division, Pharmaceutical Business Division, Otsuka Pharmaceutical Co., Ltd., Japan)
Perspectives on psychiatric research from an Asian-Pacific context

Organizer / Chair: Suresh SUNDRAM (Department of Psychiatry, School of Clinical Sciences, Monash University and Monash Health, Australia)

Co-chair: Toshiya MURAI (Department of Psychiatry, Graduate School of Medicine, Kyoto University, Japan)

The global increase in the awareness of mental health has coincided with the revolution of precision medicine and the possibility of personalised treatments. These advances have been absent in psychiatry due to the lack of biological markers and the imprecision of current nosologies. These shortcomings then have delayed the development of diagnostic tests and disease modifying treatments. The Asia-Pacific region is ideally placed to address these limitations due to access to large sample populations and the introduction of emergent technologies. This symposium presents varying approaches to these issues.

Sundram describes how work examining the mechanism of action of clozapine has identified epidermal growth factor system dysfunction that extends beyond treatment resistant schizophrenia to include a sub-group of mood disorder patients. Si presents research examining how multiple approaches can converge to assist understanding of the effects of antipsychotic drugs on neurodevelopment and the implications for adult behaviour. Srisurapanont presents clinical work demonstrating the differences in phenomenology based on cultural and ethnic factors that potentially influence the taxonomy of mood disorders.

Together, these presentations highlight the diversities of approaches across the region that can be brought to bear on developing new avenues in diagnosing and treating psychiatric disorders.

S23-1 Towards a biological classification of psychotic disorders
Suresh SUNDRAM1, 2
1Department of Psychiatry, School of Clinical Sciences, Monash University, 2Monash Health, Australia

S23-2 Effects of antipsychotics used in pregnancy on neurodevelopment and cognition
Tianmei SI, Yun Ai SU
Peking University Institute of Mental Health, Beijing, China

S23-3 Clinical Features of Depression in Asian Patients
Manit SRISURAPANONT
Department of Psychiatry, Chiang Mai University Faculty of Medicine, Thailand

Discussant: Kyung Joon MIN (Department of Psychiatry, Chung-Ang University, Korea)
A growing number of evidence points out that abnormal brain function plays a critical role in many neuropsychiatric disorders (e.g., major depression, schizophrenia, Alzheimer’s disease). In addition, many of these diseases left unsatisfactorily treated even under the combination of medications and psychotherapy. In addition to electroconvulsive therapy (ECT) and traditional brain stimulation - repetitive transcranial magnetic stimulation (rTMS), a new form of brain stimulations, theta burst stimulation (TBS), is becoming more and more important in the treatment for these neuropsychiatric disorders. In 2008, US FDA cleared the rTMS system for treating antidepressant-resistant major depression; likewise, in 2018, Taiwan FDA also had rTMS approved for treating antidepressant-resistant major depression. However, what are the mechanisms underlying the brain stimulation techniques for neuropsychiatric disorders and whether TBS are more effective than traditional TMS for treating neuropsychiatric disorders (e.g., drug-resistant depression) remain not totally understood. In this symposium, experts from different countries would talk about the mechanisms and clinical efficacy of different brain stimulation techniques and the applications of brain stimulations.

S24-1 Brain Stimulation on Neuropsychiatric Disorders: Basic Mechanisms and Clinical Efficacy
Cheng-Ta LI1, Masashi HAMADA2, Takahashi Shun3, Ming-Hsien HSIEH4
1Department of Psychiatry, Taipei Veterans General Hospital, Taiwan,
2Department of Neurology, The University of Tokyo, Graduate School of Medicine, Japan,
3Department of Neuropsychiatry, Wakayama Medical University, Japan,
4Department of Psychiatry, National Taiwan University, Taiwan

S24-2 Mechanisms of Theta-burst stimulation and other new forms of brain stimulation
Masashi HAMADA
Department of Neurology, The University of Tokyo, Japan

S24-3 Assessment of cortical excitability using TMS techniques in neuropsychiatric disorders
Shun TAKAHASHI
Department of Neuropsychiatry, Wakayama Medical University, Japan

S24-4 The Effect of Repetitive Transcranial Magnetic Stimulation on Duration Mismatch Negativity
Ming H. HSIEH1, Yi-Ting LIN1, Sheng-Chang WANG2, Yi-Ling CHIEN1, Chih-Min LIU1, Chen-Chung LIU3, Tzung-Jeng HWANG1
1Department of Psychiatry, National Taiwan University Hospital, Taiwan,
2Division of Mental Health and Substance Abuse Research, National Health Research Institute, Miaoli, Taiwan

Discussants: Satoshi UKAI (Department of Neuropsychiatry, Wakayama Medical University, Japan)
Nagafumi DOI (Ibaraki Prefectural Medical Center of Psychiatry, Japan)
Symposium-25

October 12 (Sat), 8:40-10:20 / Room 15 (Fukuoka Sunpalace Hotel & Hall, 2F, Palace Room B)

Early detection and new intervention in psychiatric disorders: from rare diseases, schizophrenia, to dementia

Organizer / Chair: Norio OZAKI (Department of Psychiatry, Nagoya University Graduate School of Medicine, Japan)
Co-chair: Makoto ARAI (Tokyo Metropolitan Institute of Medical Science, Japan)

Early detection and new intervention are vital in psychiatric disorders. In this symposium, four speakers will discuss the recent findings of early detection and new intervention in psychiatric disorders, ranging from rare diseases, schizophrenia, to dementia. Dr. Norio Ozaki (Nagoya University, Japan) will discuss the recent findings on elucidation of pathogenesis and development of treatment from rare susceptibility variants of neurodevelopmental disorders such as schizophrenia and autism spectrum disorder. Dr. Yong-Chul Chung (Chonbuk National University, Korea) will review literatures on rumination in relation to psychosis and depression and its mediating role in the development of diverse psychiatric symptoms. In addition, results on the correlations between rumination and other psychiatric symptoms measured at baseline in patients with first episode psychosis (n=440), changes of rumination score at 6 and 12 ms, and its predicting role for outcome will be presented. Based on these findings, a new perspective on the efficacy of antipsychotics on rumination will be suggested. Dr. Hsien-Yuan Lane (China Medical University, Taiwan) will report some novel N-methyl-D-aspartate receptor (NMDAR)-related biomarkers and enhancers for diagnosis and treatment of schizophrenia in this symposium. Glutamatergic system plays a key role in pathophysiology of a number of neuropsychiatric disorders including psychiatric disorders and neurodegenerative disorders. Therefore, glutamatergic system would be the novel target for these disorders. NMDAR dysfunction plays vital roles in pathogenesis of schizophrenia. However, there have been lack of suitable biomarkers and enhancers for schizophrenia. Dr. Chieh-Hsin Lin (Kaohsiung Chang Gung Memorial Hospital, Taiwan) will talk about the clinical efficacy and safety of a D-amino acid oxidase (DAAO) in the treatment of early-phase dementia. NMDAR hypofunction is found in early-phase dementia. Current treatments for dementia are unsatisfactory. Further, feasible biomarkers for detecting dementia are also lacking. DAAO inhibitor may enhance the NMDAR neurotransmission. She also found that the peripheral DAAO levels may increase with age-related cognitive decline. The findings will help to develop novel detection and intervention at early phase of dementia. Dr. Tomiki Sumiyoshi (National Center of Neurology and Psychiatry, Japan) will conclude the session by summarizing the information presented by the speakers, and providing an insight into the development of effective ways to intervene into the early and prodromal stages of these psychiatric conditions.

S25-1 Drug development for schizophrenia based on the pathogenesis from rare disease-susceptibility variants
Norio OZAKI
Department of Psychiatry, Nagoya University Graduate School of Medicine, Japan

S25-2 Effect of antipsychotics on rumination in patients with first-episode psychosis: new perspective for efficacy
Youngchul CHUNG, Yan Hong PIAO, Woo-Sung KIM, Guang Fan SHEN, Young-Eun OH
Department of Psychiatry, Chonbuk National University Medical School, Korea

S25-3 Early detection and novel intervention of schizophrenia: NMDAR-related biomarkers and modulators
Hsien-Yuan LANE1, 2, Chien-Hsin LIN2, 3
1Department of Psychiatry, China Medical University Hospital, Taichung, Taiwan,
2Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan,
3Department of Psychiatry, Kaohsiung Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Kaohsiung, Taiwan

S25-4 Early detection and intervention of dementia: approach from NMDA neurotransmission
Chieh-Hsin LIN1, 2, 3, Hsien-Yuan LANE1, 4, 5
1Department of Psychiatry, Kaohsiung Chang Gung Memorial Hospital, Chang Gung University College of Medicine, Kaohsiung, Taiwan,
2Graduate Institute of Biomedical Sciences, China Medical University, Taichung, Taiwan,
3School of Medicine, Chang Gung University, Taoyuan, Taiwan,
4Department of Psychiatry, College of Medical and Health Sciences, Asia University, Taichung, Taiwan,
5Department of Psychology, College of Medical and Health Sciences, Asia University, Taichung, Taiwan

Discussant: Tomiki SUMIYOSHI (National Center of Neurology and Psychiatry, Japan)
Symposium-26

October 12 (Sat), 8:40-10:20 / Room 16 (Fukuoka Sunpalace Hotel & Hall, 2F, Helian)

Imaging genetics of schizophrenia

Organizer / Chair: Jinsong TANG (Department of Psychiatry, The Second Xiangya Hospital of Central South University, China)
Co-chair: Hiroaki TOMITA (Department of Psychiatry, Graduate School of Medicine, Tohoku University, Japan)

Schizophrenia is a severe, highly heritable, neuropsychiatric disorder. Previous studies on the relationship between interindividual variations in impulsivity and those in local brain structure in healthy subjects have yielded inconsistent findings. Our study aimed to clarify this issue using high-quality structural magnetic resonance imaging (MRI) data from 1105 healthy young adults to calculate gray matter volume (GMV). Delay discounting was used to assess impulsivity. We found significant positive correlations between area-under-the-curve (AUC) measures of delay discounting and GMV in the bilateral temporal pole, i.e., individuals with smaller GMV in the temporal pole exhibited greater delay discounting (greater impulsivity), which suggest that interindividual differences in impulsivity are associated with temporal pole morphology. These findings may provide insight into the mechanisms of impulsive behavior in clinical populations.

In addition to impulsivity, schizophrenia patients often experience auditory verbal hallucinations (AVHs) and most of the AVHs usually associate with the negative evaluation of patients. AVHs can also be found in other subjects, from healthy individual to various psychiatric disorders (such as bipolar disorder, major depression disorder, post traumatic stress disorder etc). The commonality and specificity of AVHs among different subjects (including healthy individuals and patients with various mental disorders) diseases have not yet been fully described. These problems affecting the early precise diagnosis and treatment for this disease AVHs in different subjects. We suggest that using machine learning combined with neuro-imaging -genetics will be used to explore the commonality and specificity of neuro-imaging -genetics features in AVHs among patients subjects with schizophrenia, bipolar disorder, other disorders and healthy individuals with non-mental verbal hallucination. Understanding these features may reveal precise therapeutic targets, establish create the early diagnosis and precisely treatment predictive models for AVHs, establish objective index system for evaluating therapeutic outcomes, improve the early efficacy of diagnosis and treatment outcome of AVHs subjects, and to reduce the harmfulness of AVHs.

For the majority of schizophrenia patients, especially with AVHs, symptoms are treated with antipsychotic drugs such as risperidone, which has neurotransmitter receptor affinities of dopamine, serotonin and other transmitters and effective in treatment of acute psychosis and relapse prevention schizophrenia. There is a need to identify biomarkers for predicting, tracking and understanding psychopharmacological treatment outcomes. DNA methylation has been studied as a biomarker in schizophrenia risk. However, effects of antipsychotic medications on methylation have not been systematically examined. To estimate the effect of risperidone on DNA methylation, and investigate the relationship between DNA methylation changes and therapeutic effects on behavioral and neuroimaging phenotypes, this study conducted a longitudinal analysis of blood DNA methylation with 38 first-episode drug-naive schizophrenia patients (FESPs) studied before and after risperidone monotherapy, and 38 demographically-matched healthy control individuals. We identified 8,204 FESPs associated CpG sites which enriched in brain related pathways. Risperidone treatment lead to methylation alterations of 6,143 CpG sites which related to the calcium signaling pathway. Treatment normalized 659 CpG sites and these DNA methylation changes were related to alterations in symptoms severity, spontaneous brain physiological activity and cognitive function in FESPs.

S26-1 A comprehensive analysis of GSK3B rs3755557 polymorphism for schizophrenia in Han Chinese
Chen ZHANG1, Yan CHEN1, Shen HUA2, Weiping WANG2, Weixing FAN2, Wei TANG3, Yi ZHANG1
1Shanghai Mental Health Center, China, 2Jinhae Second Hospital, China, 3Wenzhou Kangning Hospital, China

S26-2 The neuroimaging characteristics of negative symptoms in the patients with schizophrenia
Xiang Rong ZHANG1, Teng XIE2, Xiao Wei TANG1, 2, Miao YU1, Hong Ying ZHANG1, Yong HE2
1Department of Geriatric Psychiatry, Affiliated Nanjing Brain Hospital, Nanjing Medical University, China, 2National Key Laboratory of Cognitive Neuroscience and Learning, Beijing Normal University, Beijing, China

S26-3 Risperidone-induced DNA methylation alterations in first-episode drug-naive schizophrenia patients and their relationship with neuroimaging and cognitive phenotypes
Jinsong TANG1, 2, 4, 5, Maolin HU1, Yan XIA1, Xiaofeng ZONG1, Chao CHEN3, Chunyu LIU1, Xiaogang CHEN1
1Department of Psychiatry, the Second Xiangya Hospital of Central South University, 2Department of Psychiatry, The Second Xiangya Hospital of Central South University, 3Department of Radiology, Subei People’s Hospital of Jiangsu Province, Yangzhou University, Yangzhou, China, 4Key Laboratory of Psychiatry and Mental Health of Hunan Province, 5Institute of Mental Health of the Second Xiangya Hospital of Central South University

S26-4 Prospective memory performance in different phases of psychosis
Fuchun ZHOU1, Iunan LIN1, Chuanyue WANG2, Weiping WANG2, Weixing FAN2
1Department of Psychiatry, The Second Xiangya Hospital of Central South University, China, 2Department of Information Science and Biomedical Engineering of Kagoshima University, Japan

Discussants: Lulin DAI (Department of Information Science and Biomedical Engineering of Kagoshima University, Japan)
Yanhui LIAO (Mental Health Institute, The Second Xiangya Hospital of Central South University, China)
Symposium-27
October 12 (Sat), 10:30-12:10 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)

Regulatory Collaboration to Accelerate Drug Development

Chairs: Junko SATO (Pharmaceuticals and Medical Devices Agency, Japan)
Shigeto YAMAWAKI (Center for Brain, Mind and KANSEI Sciences Research, Hiroshima University, Japan)

Primary role of regulatory agency is to protect public health through scientific evaluation of drug and biologic products and also medical devices. To ensure the efficacy and safety of medical products based on substantial evidence, regulatory science has grown out of the need to integrate knowledge among basic research, clinical research and clinical medicine. Based on such enormous efforts and experiences on scientific evaluation, regulatory agencies can generate state-of-the-art strategies in the area of regulatory science to accelerate drug development process by making it more adequate and efficient. With greater knowledge about the direction favored by regulatory agencies, researchers and companies can design technologies. Regarding psychiatric fields, there have been many alterations in drug development programs in the past, including the mental disorders studied and complexity of clinical trial designs and data analysis. Such progress results from current advance of research for functional mechanism that underlies central nervous system (CNS) derangement in psychiatric illness. However, there is vast unmet medical need that treatment for patients with mental disorder does not result improvement sufficiently and they often disabled despite existing treatments. These situations can be accounted for in part by increasing diversity in the patients in clinical practice and existing medical products with a limited number of new mechanisms of action, and it is necessary to develop new drugs in the future. Innovative ways to quantify human and animal behavior provide increasing number of CNS targets which may contribute to psychiatric drug development, though it still remains unclear how they relate to symptoms which underlie clinical entities. From this point of view, building regulatory collaboration is strategic activity to foster potentially valuable pharmaceutical technologies and to address public health problems. The objectives of this symposium are discussion for ways of regulatory collaboration after consideration of challenges of regulatory advance for innovation.

S27-1 Challenges of Regulatory Advance for Innovation in Japan from the Viewpoint of Regulatory Science
Shinobu UZU
Pharmaceuticals and Medical Devices Agency, Japan

S27-2 Regulatory Perspectives of Current New Drug Development in Neuropsychopharmacology
Chi-Hsun CHEN
Division of New Drug, Center for Drug Evaluation, Taiwan

S27-3 Regulatory innovation to enhance new product development
Yvonne Siew Khoon KHOO
National Pharmaceutical Regulatory Division (NPRA), Ministry of Health Malaysia, Malaysia

S27-4 Drug development for Asia from the pharmaceutical company’s perspective
Kazuto YAMADA
Otsuka Pharmaceutical Co., Ltd., Japan

S27-5 Introduction of Phase 2 clinical trial network and central evaluation system in Japan
Kazuyuki NAKAGOME
National Center of Neurology and Psychiatry, Japan

Discussant: Tetsuo NAKABAYASHI (Pharmaceuticals and Medical Devices Agency, Japan)
The habenular nuclei involved in emotional regulation

Organizer / Chair: Hitoshi HASHIMOTO (Laboratory of Molecular Neuropharmacology, Graduate School of Pharmaceutical Sciences, Osaka University, Japan)
Co-chair: Hirokazu HIRAI (Department of Neurophysiology & Neural Repair, Gunma University Graduate School of Medicine, Japan)

The habenula is a small brain region located close to the midline and surrounded by the third ventricle and is well conserved across vertebrates. It has this name from Latin for "little rein" which was originally designated as pedunculus of pineal body and thought to be involved in regulation of the pineal gland. However, recently studies have demonstrated that the habenula connects various brain regions within, e.g., the forebrain and midbrain and is implicated in a variety of important brain functions. The habenula is divided into two main subregions, the medial and lateral habenula (in lower vertebrates, dorsal and ventral habenula). These two subregions have been shown to have distinct composition of neurotransmitters, neural connectivity, and gene expression profiles. More recently, a number of important findings have been reported that illustrate the critical roles of the habenula in emotional regulation, disturbance of which can cause psychiatric disorders such as depression, and thus provide insights into new treatment approach. In this symposium, three eminent guest speakers will present their recent research achievements concerning the roles of the habenula. Dr. Hitoshi Okamoto at RIKEN will present the findings showing that social conflict and aversive behavior are regulated by the habenula using zebrafish. Dr. Hidenori Aizawa at Hiroshima University will present the findings showing that aberrant glial function in the lateral habenula is involved in the increased susceptibility to the chronic stress. Dr. Yihui Cui at Zhejiang University will present the findings showing that ketamine blocks bursting in the lateral habenula providing a possible mechanism for rapid antidepressant actions.

(This symposium will be related with those organized by Dr. Kenji Hashimoto (S37) and Dr. Tung-Ping Su (S15).)

S28-1 Regulation of social conflict by the synaptic plasticity in the habenulo-interpeduncular pathway
Hitoshi OKAMOTO
RIKEN Center for Brain Science, Japan

S28-2 Glial mobilization in the murine lateral habenula increases susceptibility to the chronic stress
Hidenori AIZAWA
Dept. of Neurobiology, Graduate School of Biomedical and Health Sciences, Hiroshima University, Hiroshima, Japan

S28-3 Burst, ketamine and Depression
Yihui CUI
Center for Neuroscience, Zhejiang University, China

Discussants: Tomoyuki FURUYASHIKI (Division of Pharmacology, Graduate School of Medicine, Kobe University, Japan)
Tetsuya SUHARA (National Institutes for Quantum and Radiological Science and Technology, Japan)
Research on Asian Psychotropic prescription pattern (REAP)

Organizer / Chair: Shih-Ku LIN (Taipei City Hospital and Psychiatric Center, Taiwan)
Co-chair: Norio WATANABE (Department of Health Promotion and Human Behavior, Kyoto University Graduate School of Medicine / School of Public Health, Japan)

REAP is the longest standing and the largest international collaborating research in the field of psychiatry in Asia. The study started in 1999 as a large scale collaborative research project in East Asia. The REAP studied the prescription of patients with schizophrenia in 2001, 2004, 2008 and 2016. Fifteen countries and areas in Asia participated in the REAP survey in 2016. More than seventy papers were published from this consortium.

The first survey of bipolar disorder is implemented in 2018. In this symposium, Prof Shinfuku will give an overview talk on REAP and its clinical implication and influence; Prof Inada will discuss the use of Dug-induced Extrapyramidal Symptoms Scale in REAP AP4; Prof Chong will discuss multiple versus single antipsychotic drug treatment of inpatients with schizophrenia; and Prof Lin will report the findings from REAP Bipolar disorder.

S29-1 High dose prescription and polypharmacy for persons with schizophrenia in Japan-Findings from 4 REAP surveys on the prescription of psychotropic drugs from 2001-to 2016
Naotaka SHINFUKU
Kobe University, Kobe, Japan

S29-2 Profiles of antipsychotic-induced extrapyramidal symptoms assessed using the DIEPSS in 5 Asian countries attending the REAP AP4 survey
Toshiya INADA1, Chika KUBOTA2, Ajit AVASTHI3, Kok-Yoon CHEE4, Andi Jayalangkara TANRA5, Shin-Ku LIN6,
Naotaka SHINFUKU7
1Department of Psychiatry and Psychobiology, Nagoya University Graduate School of Medicine, Aichi, Japan,
2National Center of Neurology and Psychiatry, Kodaira, Tokyo, Japan,
3Department of Psychiatry, Postgraduate Institute of Medical Education & Research, Chandigarh, India,
4Department of Psychiatry & Mental Health, Kuala Lumpur Hospital, Kuala Lumpur, Malaysia,
5Department of Psychiatry, Hasanuddin University, Makassar, Indonesia,
6Department of Psychiatry, Taipei City Hospital and Psychiatric Center, Taipei, Taiwan, 7Emeritus Professor, Kobe University, Kobe, Japan

S29-3 Multiple versus single antipsychotic drug treatment of inpatients with schizophrenia in Asia
Mian-Yoon CHONG1,2
1Chang Gung Memorial Hospital, ChiaYi, Taiwan, 2Chang Gung University School of Medicine, Taiwan

S29-4 Polypharmacy in Bipolar disorder: Findings from REAP Bipolar Disorder
Shih-Ku LIN1,2, Shu-Yu YANG3, Naotaka SHINFUKU3
1Taipei City Hospital and Psychiatric Center, Taiwan, 2School of Medicine, Taipei Medical University, Taiwan,
3Kobe University School of Medicine, Japan

Discussants: Chay Hoon TAN (National University of Singapore, Singapore)
Andi Jayalangkara TANRA (Universitas Hasanuddin, Indonesia)
Network meta-analysis, Individual participant (network) meta-analysis & Cumulative (network) meta-analysis

Medicine is making constant progress and for many diseases we currently have several or more treatment alternatives. Network meta-analysis (NMA) offers the strongest method for evidence synthesis in such circumstances by pooling both direct and indirect comparisons, thus enabling comparisons where direct ones are lacking, making effect estimates more precise than through direct comparisons only, and ultimately ranking all alternative treatments.

The methodology of NMA is making steady progress. We can now pool individual participant data (IPD) in NMA, which enables more consistent and more precise comparisons and also detection of effect modifiers and prognostic factors for alternative treatments. The results then can contribute to stratified or personalized medical care. NMA can also be conducted cumulatively or sequentially, which will enable up-to-date evidence synthesis.

This symposium will showcase the cutting edge examples of modern NMA and its developments.

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**S30-1 Pharmacological treatments in the maintenance treatment of bipolar disorder: a network meta-analysis**
Tomofumi MIURA
Department of Psychiatry, NHO Kokura Medical Center, Japan

**S30-2 Antidepressants: network meta-analysis and evidence-based decision making in clinical practice**
Andrea CIPRIANI
Department of Psychiatry, University of Oxford, UK

**S30-3 Personalizing the treatment choice using individual participant data network metaregression: CBASP, medication or their combination in the treatment of persistent depressive disorder**
Toshiaki A. FURUKAWA
Department of Health Promotion and Human Behavior, Kyoto University Graduate School of Medicine / School of Public Health, Japan

**S30-4 Evidence evolution indicated by cumulative network meta-analyses for new generation antidepressants in the treatment of depression in the past two decades**
Yan LUO1, Toshi A. FURUKAWA1, Anna CHAIMANI2, Andrea CIPRIANI3
1Department of Health Promotion and Human Behavior, Graduate School of Medicine, Kyoto University, Japan,
2Epidemiology and Statistics, Sorbonne Paris Cité Research Center, METHODS Team, Paris, France,
3Department of Psychiatry, University of Oxford, Oxford, UK

[Discussant: Fumihiro TAMURA (Meiji Seika Pharma Co., Ltd., Japan)]  

| Symposium-30 | October 12 (Sat), 10:30-12:10 / Room 15 (Fukuoka Sunpalace Hotel & Hall, 2F, Palace Room B) | Network meta-analysis, Individual participant (network) meta-analysis & Cumulative (network) meta-analysis |
---|---|---|
Organizer / Chair: Toshiaki A. FURUKAWA (Department of Health Promotion and Human Behavior, Kyoto University Graduate School of Medicine / School of Public Health, Japan) | Co-chair: Hisateru TACHIMORI (National Center of Psychiatry and Neurology, Japan) | Medicine is making constant progress and for many diseases we currently have several or more treatment alternatives. Network meta-analysis (NMA) offers the strongest method for evidence synthesis in such circumstances by pooling both direct and indirect comparisons, thus enabling comparisons where direct ones are lacking, making effect estimates more precise than through direct comparisons only, and ultimately ranking all alternative treatments. The methodology of NMA is making steady progress. We can now pool individual participant data (IPD) in NMA, which enables more consistent and more precise comparisons and also detection of effect modifiers and prognostic factors for alternative treatments. The results then can contribute to stratified or personalized medical care. NMA can also be conducted cumulatively or sequentially, which will enable up-to-date evidence synthesis. This symposium will showcase the cutting edge examples of modern NMA and its developments. |
Glial cells including astrocytes and microglia have recently been highlighted in the field of neuropsychiatry. Human postmortem and PET studies have suggested that activation of glial cells contribute to developing psychopathology in a variety of psychiatric disorders such as delirium, epilepsy, schizophrenia, mood disorders and autism. However, deeper molecular mechanisms have not been well clarified. Traditionally, actions of psychotropic drugs had been believed to be limited to neurons and synapses, and glia-target drugs are warranted. On the other hand, underlying mechanisms of non-pharmacological treatments such as electroconvulsive therapy (ECT) and transcranial magnetic stimulation (TMS) have not been clarified, and we hypothesize that glial cells may strongly contribute to the action of these treatments. By the way, delirium has been suggested as a glia-oriented disease, and deeper understandings of delirium will clarify the roles of glia not only in delirium but also in many other psychiatric disorders.

In order to discuss/resolve the above highly-important topics in glia-psycho-pathology, four speakers will introduce the up-to-date knowledge based on their own study from rodent in vitro and in vivo experiments to human epigenetic and blood molecular approaches.

Prof. Koizumi will introduce the novel pharmacological actions of antidepressants on glial cells using rodent models. Dr. Limoa will talk about the possible glia-modulating mechanisms of ECT based on a rat model. Dr. Shinozaki will introduce his novel translational research of delirium patients focusing on epigenetics of glia. Finally, Dr. Kato will introduce a novel translational research approach using human blood samples such as metabolomic analysis and also a human blood induced microglia-like (iMG) cells to clarify the dynamic interaction between molecular actions and severity of psychiatric symptoms.

We believe that our symposium will shed new light on the future development of glia-target therapy in psychiatry.

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**S31-1 Glial cells as a therapeutic target for anti-depressants**

Schuichi KOIZUMI  
Dept Neuropharmacol, Interdisciplinary Grad Sch Med, Univ Yamanashi, Japan

**S31-2 The Effect of Electroconvulsive Shock in Microglia and Astrocyte, in Vivo Study**

Erlyn LIMOA1, Sadayuki HASHIOKA2, Sonny Teddy LISAL1, Andi Jayalangkara TANRA1, Jun HORIGUCHI1  
1Department of Psychiatry, Faculty of Medicine, Universitas Hasanuddin, Makassar, Indonesia,  
2Department of Psychiatry, Faculty of Medicine, Shimane University, Izumo, Japan

**S31-3 Epigenetics of delirium: potential role of aging on DNA methylation changes in cytokine genes**

Gen SHINOZAKI  
Department of Psychiatry, Carver College of Medicine, University of Iowa, USA

**S31-4 Human blood-based microglia monitoring system as a novel translational research tool for psychiatric disorders**

Takahiro A. KATO1, Masahiro OHGIDANI1, Daiki SETOYAMA2, Dongchon KANG2, Shigenobu KANBA1  
1Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University, Japan,  
2Department of Clinical Chemistry and Laboratory Medicine, Graduate School of Medical Sciences, Kyushu University, Japan

Discussants: Masahiro OHGIDANI (Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University, Japan)  
Eiji SHIGETOMI (Department of Neuropharmacology, University of Yamanashi, Japan)
Neuropsychopharmacology of relaxin-3

Relaxin-3, an relaxin/insulin-like family peptide, and its receptor RXFP3 have been proposed to modulate emotional-behavioural functions such as arousal and behavioural activation, appetite regulation, stress responses, anxiety, memory, sleep and circadian rhythm. Relaxin-3 is expressed primarily in the brain where it is found most prominently neurones of the nucleus incertus (NI). The NI in the midline tegmentum close to the fourth ventricle projects widely throughout the brain. Over recent years, a number of preclinical studies have explored the function of the NI and relaxin-3 signalling, including reports of mRNA or peptide expression changes in the NI in response to behavioural or pharmacological manipulations, effects of lesions or electrical or pharmacological manipulations of the NI, effects of central microinfusions of relaxin-3 or related agonist or antagonist ligands on physiology and behaviour, and the impact of relaxin-3 gene deletion or knockdown. Together the available evidence suggests that targeting the nucleus incertus network and relaxin-3/RXFP3 system may be novel therapeutic approach in neuropsychiatric disorders including anxiety disorders, depression, and eating disorders. This symposium will explore the most recent evidence indicating that the relaxin-3/RXFP3 system may be novel therapeutic target for neuropsychiatric disorders and advances in the development of ligands for the RXFP3 receptor.

S32-1 Relaxin3/RXFP3 modulation of emotional function, a putative target for mental illness
Francisco E OLUCHA-BORDONAU1, Hctor ALBERT-GASCó1,2, Cristina GARCia-DIAZ1, Ángel NúñEZ2, Esther CASTILLO-GóMEZ1, Francisco ROS-BERNAL1
1U. P. Medicina, Universitat Jaume I, 2Dep Anatomía, Histología y Neurociencias, Universidad Autónoma de Madrid, Spain

S32-2 Sex-specific effects of relaxin-3 on food intake and body weight in rats
Camila DE ÁVILA1,2
1Lab. of Stress and Feeding, Department of Psychiatry and Neuroscience, Laval University, Quebec, Canada, 2Centre de Recherche Institut Universitaire de Pneumologie et de Cardiologie de Québec, Quebec, Canada

S32-3 The relaxin-3/RXFP3 system as a novel target for neuropsychiatric disorders
Gavin Stewart DAWE
Department of Pharmacology, Yong Loo Lin School of Medicine, National University of Singapore, Singapore

S32-4 Recent advances in the neuropsychopharmacology of relaxin-3/RXFP3 systems: Actions of relaxin-3/RXFP3 signalling in circuits for sensory, emotional and cognitive integration
Andrew L. GUNDLACH
The Florey Institute of Neuroscience and Mental Health, Parkville, Victoria, Australia

Discussant: Toshihisa OTSUKA (Department of Biochemistry, Graduate School of Medicine / Faculty of Medicine, University of Yamanashi, Japan)
Since Japan has now become a super-aged society, there is a strong demand for revealing the pathogenesis of neuropsychiatric disorders and developing the fundamental treatments for these conditions. Based on the plan for the Promotion of Medical Research and Development prescribed by the government of Japan, the Medical Research and Development (AMED) promotes integrated R&D in the field of medicine, from basic research to clinical trials, focusing on interrelated areas including neuropsychiatric conditions. In addition to ensuring that outcomes are linked through practical application, it undertakes projects with the aim of comprehensively and effectively establishing and maintaining an environment for this R&D.

The Project for Psychiatric and Neurological Disorders accelerates endeavors aiming to overcome dementia, depression, and other brain disorders. The goal of this project is to establish innovative strategies for diagnosis, prevention, and treatment of brain disorders through the strong promotion of research on neural circuits and brain functions related to the pathophysiology of the brain.

In this symposium, four presenters will discuss the current issues and the future direction of basic and clinical brain science research in Japan.

S33-1 **Great demographic transition faced on Asian countries and neuropsychiatry diseases**
Makoto SUEMATSU
Japan Agency for Medical Research and Development, Japan

S33-2 **Significance of basic research from the clinical point of view (Neurology)**
Nobutaka HATTORI
Department of Neurology, Juntendo University, Tokyo, Japan

S33-3 **Neuroscientific research aimed at explaining mental disorders; a psychiatrist-researcher's point of view**
Shigenobu KANBA
Kyushu University / Japan Depression Center, Japan

S33-4 **Promotion of Research and Development for Persons with Mental Illness**
Teruhiko HIGUCHI1, 2
1Japan Depression Center, Japan, 2National Center of Neurology and Psychiatry, Japan

S33-5 **Brain/MINDS project - Understanding physiology and pathology of human brain**
Shigeo OKABE
Dept. of Neurobiology, Graduate School of Medicine, The University of Tokyo, Tokyo, Japan

Discussant: George F. KOOB (National Institute on Alcohol Abuse and Alcoholism, USA)
Symposium-34
October 12 (Sat), 14:50-16:30 / Room 6 (Fukuoka International Congress Center, 4F, 401+402)

Early Career Researchers Symposium
Clinical research in progress on addictive medicine

Organizer / Chair: Toshikazu SAITO (Miki Mental Clinic / Department of Psychiatry, Sapporo Medical University, Japan)

Alcohol and drug abuse is a serious public health problem among Asian countries that affects almost every community. The magnitude of problems and situations of alcohol and drug use as well as addictive disorders differ country by country, due to such region-specific aspects as the components of the community and cultural differences. Dealing with such problems in various countries is aimed to clarify the region-specific aspects of problems in addiction in countries’ context, thereby contributing to delineate the issue and further to develop a better understanding of the problems and management. Addressing and solving these problems requires information from research that is specific to the context of the society. As mentioned above, we plan to make a symposium titled “Early career researchers symposium: Clinical research in progress on addictive medicine”. This symposium aims to highlight research projects in the addictive field that investigated by young international researchers. It will focus on different types of clinical research projects that young researchers are conducting them including observational studies, clinical trials, and data analyses. Each participant will share their research projects in development, describe their aims, methods, preliminary data, and future goals of the research projects. The presentations include some evidence supporting the biopsychosocial model of addiction, which focus on both in neurobiological and psychosocial findings on understanding the situations of the problems, the progression, and the outcome of addictive behaviors, including some parts of management among the different countries. Furthermore, this symposium will show that initiating research projects is a challenging task for a young researcher, particularly the limited time and funding. It will also demonstrate some of the key elements of developing a successful research project including finding adequate mentorship, building a research team, and working through the obstacles during conducting the research projects. We hope that the symposium attendances will understand the problems of drug addiction in this region. This will lead to the more in-depth discussion of this issue and further collaboration for further researches in the future.

S34-1  Cognitive dysfunction and impediment to cerebral blood flow in alcoholics
Tomohiro SHIRASAKA1, 2, Miyuki TSUNETA1, Kimura HISAKAZU1, 2, Saito TOSHIKAZU2
1Department of Psychiatry, Teine Keijinkai Hospital, Japan., 2Psychiatric Institute, Hokujinkai Medical Corporation, Japan.

S34-2  Working Memory Impairment in Chronic Ketamine Abusers
Chia Chun HUNG1, 2, 3, Yi Hsuan LIU3, Chu Chung HUANG1, Ray Chiang-Shan LI5, 6, Ching Po LIN2, 3, Szu Hsien LEE4
1Bali Psychiatric Center, Ministry of Health and Welfare, Taiwan, 2Institute of Brain Science, National Yang Ming University, Taiwan, 3Brain Connectivity Lab, Institute of Neuroscience, National Yang Ming University, Taiwan, 4Department of Health Promotion and Education, National Taiwan Normal University, Taiwan, 5Department of Psychiatry Yale University School of Medicine, USA, 6Department of Neuroscience, Yale University School of Medicine, USA

S34-3  Methamphetamine use among pregnant women
Woraphat RATTA-APHA, Vinn JINANARONG, Naratip SANGUANPANICH, Nantawat SITDHIRAKSA
Department of Psychiatry, Faculty of Medicine Siriraj Hospital, Mahidol University, Thailand

S34-4  Evaluating a Smoking Cessation Training Using PROCITE, a Newly Developed Evaluation Instrument
Amer Siddiq AMER NORDIN1, 2, Anne YEE1, 2, Farizah MOHD HAIRI1, 2, Siti Idayu HASSAN1, 3
1University Malaya Centre of Addiction Sciences (UMCAS), University of Malaya, Malaysia, 2Department of Psychological Medicine, Faculty of Medicine, University of Malaya, Malaysia, 3Department of Social and Preventive Medicine, Faculty of Medicine, University of Malaya, Malaysia

Discussants: Sungwon ROH (Department of Psychiatry, Hanyang University College of Medicine, Korea), Tony Szu-Hsien LEE (Department of Health Promotion and Health Education, National Taiwan Normal University, Taiwan)
Obsessive-compulsive disorder: clinical heterogeneity and innovative treatment approaches

Organizer / Chair: Chan-Hyung KIM (Department of Psychiatry, Yonsei University College of Medicine, Korea)
Co-chair: Toshihiko KINOSHITA (Department of Psychiatry, Kansai Medical University, Japan)

Obsessive-compulsive (OC) symptoms are remarkably diverse, and the clinical presentations can vary both within and across patients over long period of time. This variability in the phenotypic expression has led to the hypothesis that obsessive-compulsive disorder (OCD) is a heterogeneous disorder and that this heterogeneity obscures the findings of clinical, natural history and treatment response studies. OCD is commonly considered as a heterogeneous condition with distinct neural correlates across symptom dimension. The precise causal factors for OCD are not known, however, decades of research have proposed abnormalities of cortico-striatal circuits that involve the orbitofrontal cortex, anterior cingulate cortex, thalamus and the striatum in the brain as a critical pathway involved in obsessions and the intimately linked compulsive-repetitive behaviors. A complete understanding of what comprises OCD will require a several different approaches. These approaches include (1) narrowing the phenotype to identify neurobiological basis of individual phenotypes in OCD (2) broadening the phenotype in OCD to include hoarding disorder (3) updating recent non-invasive treatment technique, such as neuromodulation for OCD and (4) challenging to manage OCD comorbid with schizophrenia and bipolar disorder, difficult-to-treat. It is hoped that the characterization of the pathophysiological mechanisms of OCD components and OC related conditions could contribute to the development of specific pharmacological and neuromodulatory therapies tailored to each of these conditions.

S35-1 Neurobiological basis of different clinical phenotypes in OCD
Tomohiro NAKAO
Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University, Fukuoka, Japan

S35-2 Hoarding symptoms: Current status of the understanding and prevalence in outpatient population
Jhingoo CHANG¹, Hoo Rim SONG¹, Chan-Hyung KIM²
¹Department of Psychiatry, Myongji Hospital, Hanyang University, College of Medicine, Korea,
²Institute of Behavioral Science in Medicine, Yonsei University College of Medicine, Seoul, Korea

S35-3 Neuromodulation for the patients with OCD – where, when and how?
Daeyoung ROH
Mind-neuromodulation Laboratory and Department of Psychiatry, Hallym University College of Medicine, Korea

S35-4 Challenges in Treating OCD comorbid with schizophrenia and bipolar affective disorder
Takashi NAKAMAE
Department of Psychiatry, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Japan

Discussants: Toshihide KUROKI (Department of Clinical Psychology, Kyushu University Graduate School of Human-Environment Studies, Japan)
Taro KATO (Pharmacology Research Unit, Sumitomo Dainippon Pharma Co., Ltd., Japan)
Unveiling the neuro-cognitive underpinnings of schizophrenia: From clinical application to conceptual analysis

Organizer / Chair: Yen Kuang YANG (Department of Psychiatry, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Taiwan)
Co-chair: Toshiya MURAI (Department of Psychiatry, Graduate School of Medicine, Kyoto University, Japan)

In light of the advance of clinical neuro-imaging, several new techniques and constructs have been introduced to lift the veil of schizophrenia on varying levels (e.g., brain volumetric changes, resting-state connectivity, deep learning, and endophenotype). However, the results for guiding on improving clinical practice in treating patients with schizophrenia are still uncertain. There are several novelty efforts for this gap will be presented in this proposed symposium. Four proposed talks will be presented in this symposium. Firstly, fMRI data (T1, resting, task-based data) of first episode psychosis (n=140) with deep learning methods will be presented and its application for how to apply/improve clinical practice will be discussed. Secondly, although dopamine hypothesis for schizophrenia had been proposed for many decades, however the role of dopamine in prognosis of schizophrenia is still debated. Some of the studies to explore dopamine level based on drug naïve patients showed higher DA level could be, compared with their controls. However, does higher DA activity mean trait of schizophrenia in the early phase of illness? The meta-analysis showed controversy result. The possible explanation for the DA role in the pathogenesis in schizophrenia will be proposed in the report. Additionally, it was well known that the deficit/negative symptoms were caused by hypodopaminergic activities. Does DA activity of drug naïve patients with schizophrenia predict outcome? This second part of symposium will show higher dopaminergic activities in the drug naïve patient will show better prognosis in their 8-year follow-up study. Besides, the correlation of dopamine availability and volumetric changes in drug naïve patient will be presented and their clinical application will be discussed. Thirdly, a leading hypothesis regarding the etiology of schizophrenia emphasizes the pivotal role of dysfunctional self in its various manifest symptoms. In support of the hypothesis, a reliable link between atypical self-representation and psychosis has been documented in empirical studies in patients with schizophrenia, other patients with positive psychotic features, and subclinical individuals with psychotic-like experiences. Yet, it has been largely unknown about the specificity of this link. Atypical self-representation may fuel other psychiatric dysfunctions as well as psychosis. Failing to recognize the heterogeneous outcomes of dysfunctional self-representation hence increases the risk for an over-inclusive framework of psychosis, leading to the low predictive power of the dysfunctional self-representation endophenotype for psychotic disorders. It is crucial to systematically investigate self-representation in studying early phase psychosis. Finally, traumatic experience has been shown to be reliable environmental risk factor for schizophrenia, despite the lack of an account for its precise pathogenic mechanism. The final part of this symposium will focus on the relationship between traumatic experience and volumetric changes in patients with schizophrenia.

S36-1 Interpretable deep learning for fMRI data in patients with first episode psychosis
Youngchul CHUNG1, Woo-Sung KIM2, Guang Fan SHEN1, Cong Cong LIU1
1Department of Psychiatry, Chonbuk National University Medical School, Korea, 2Department of Medical Science, Chonbuk National University, Korea

S36-2 The Possible Role of Dopamine in the Outcome of Treating Patients with Schizophrenia
Yen Kuang YANG
Department of Psychiatry, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Taiwan

S36-3 Dysfunctional self-representation: A socio-cognitive endophenotype specific to psychosis?
Chui-De CHIU
Department of Psychology, Chinese University of Hong Kong

S36-4 Altered association between gray-matter volume and dissociative symptoms in schizophrenia: A voxel-based morphometry study
Huai-Hsuan TSENG1, Chui-De CHIU2, Kao Chin CHEN1, I Hui LEE1, Po See CHEN1, Yen Kuang YANG1
1Department of Psychiatry, National Cheng Kung University, Taiwan, 2Clinical and Health Psychology Centre and Centre for Cognition and Brain Studies, Department of Psychology, The Chinese University of Hong Kong, Hong Kong Special Administrative Region

Discussants: Fumitoshi KODAKA (Department of Psychiatry, The Jikei University School of Medicine, Japan) Shinsuke KOIKE (Center for Evolutionary Cognitive Science, The University of Tokyo, Japan)
Ketamine: From Abused Drug to Rapid-Acting Antidepressant

Organizer / Chair: Kenji HASHIMOTO (Chiba University Center for Forensic Mental Health, Chiba, Japan)
Co-chair: Edward DOMINO (Department of Pharmacology, University of Michigan, USA)

The N-methyl-D-aspartate receptor (NMDAR) antagonist ketamine is a popular abused drug in the world including Asia. In contrast, ketamine is one of the most attractive antidepressants since ketamine can produce rapid-onset and sustained antidepressant effects in treatment-resistant patients with major depression and bipolar disorder. A number of clinical studies make ketamine an attractive rapid-onset therapeutic drug for treatment-resistant depression, although its clinical application may be limited owing to its propensity of causing psychotomimetic effects and abuse liability. The four speakers of this symposium are ketamine research experts in Asia.

Substance addiction has long been associated with dysregulation in stress response systems. Dr. Ming-Chyi Huang (Taiwan) presents the alterations of orexin-A, oxytocin, ACTH, and cortisol levels in treatment-seeking ketamine-dependent patients before and after early abstinence. Chronic ketamine abuse is associated with an abnormal expression of stress-related neuropeptides, which do not normalize after ketamine discontinuation. Those with an anxious phenotype might have a more disrupted stress regulation. These results could provide insight into the development of potential therapeutic strategies to treat ketamine dependence.

Low-dose ketamine has rapid antidepressant effects and brings new hope for patients with treatment-resistant depression. However, while it looks promising, there are still some potential issues unsolved which need to be clarified. Dr. Cheng-Ta Li (Taiwan) would focus not only the positive findings on it but also some potential problems to see while using this compound clinically.

Ketamine (Ki = 500 nM for NMDAR) is a racemic mixture containing equal parts of (S)-ketamine (Ki = 300 nM) and (R)-ketamine (Ki = 1400 nM). Interestingly, (R)-ketamine showed greater potency and longer lasting antidepressant effects than (S)-ketamine in several animal models of depression. Accumulating evidence suggest that gut microbiota may play a role in depression and in the antidepressant effects of certain compounds. Dr. Chun Yang (China) will talk about the role of gut-microbiota in the antidepressant effects of ketamine and its two enantiomers (R)-ketamine and (S)-ketamine. (R)-ketamine is metabolized to (2R,6R)-hydroxynorketamine (HNK) in the liver. Finally, Dr. Kenji Hashimoto (Japan) will talk the recent findings of (R)-ketamine and its metabolite (2R,6R)-HNK in animal models of depression. In this symposium, we discuss the benefits and risks of ketamine and its enantiomers in the treatment of depression.

S37-1 The alterations of stress-related neuropeptides in ketamine-dependent patients after early abstinence
Ming-Chyi HUANG1, 2, Shih-Ku LIN1, 2, Chih-Ken CHEN1, 4
1Department of Psychiatry, Taipei City Psychiatric Center, Taipei City Hospital, Taipei, Taiwan,
2Department of Psychiatry, School of Medicine, College of Medicine Taipei Medical University, Taipei, Taiwan,
3Department of Psychiatry, Keelung Chang Gung Memorial Hospital, Keelung Taiwan,
4Department of Psychiatry, School of Medicine, Chang Gung University, Taiwan

S37-2 Central mechanisms and BDNF genetic effects of Low-Dose Ketamine on Treatment-Resistant Major Depression
Cheng-Ta LI1, Tung-Ping SU2
1Department of Psychiatry, Taipei Veterans General Hospital, Taiwan, 2School of Medicine, National Yang-Ming University, Taipei, Taiwan

S37-3 Role of gut microbiota in the antidepressant effects of ketamine
Chun YANG
Department of Anesthesiology, Tongji Hospital, Tongji Medical College, Huazhong University of Science and Technology, China

S37-4 Recent topics on rapid-acting antidepressant (R)-ketamine
Kenji HASHIMOTO
Chiba University Center for Forensic Mental Health, Chiba, Japan

Discussants: Tung-Ping T SU (Department of Psychiatry, Cheng-Hsin General Hospital, National Yang-Ming University, Taiwan)
Shigeyuki CHAKI (Research Headquarters, Taisho Pharmaceutical Co., Ltd., Japan)
Symposium
October 12 (Sat), 14:50-16:30 / Room 14 (Fukuoka Sunpalace Hotel & Hall, 2F, Palace Room A)

Emerging roles of DAMPs/alarmins and PRRs in neurological disorders

Organizer / Chair: Atsufumi KAWABATA (Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University, Japan)
Co-chair: Masako ISEKI (Department of Anesthesiology and Pain Medicine, Juntendo University School of Medicine, Japan)

Accumulating evidence has unveiled the critical roles of neuroinflammation, particularly related to innate immune responses, in diverse neurological disorders. A variety of damage-associated molecular patterns (DAMPs)/alarmins, released endogenously from host cells, interact with pattern recognition receptors (PRRs), thereby promoting inflammation throughout the mammalian body including the brain. High mobility group box 1 (HMGB1), one of the best known DAMPs/alarmins, is now considered to play a crucial role in the development of neuroinflammation, which is associated with stroke, dementia, epilepsy, neuropathic pain, etc. Prothymosin alpha regulates the neuroimmune systems as a unique member of DAMPs/alarmins. Toll-like receptors (TLRs), the best known PRRs, recognize a variety of DAMPs/alarmins, in addition to pathogen-associated molecular patterns (PAMPs), and participate in the pathogenesis of diverse neurological disorders. In this symposium, four speakers will focus on DAMPs/alarmins and PRRs in the neuronal systems, which are essential for the pathogenesis of neurological disorders, innovation of the therapeutic strategies and development of the biomarkers. Dr. Hsueh, one of the most active female researchers in Taiwan, will speak about the role of PRRs, particularly TLRs, in regulation of neuronal morphology and function in relation to neurodevelopmental disorders including autism spectrum disorders, schizophrenia, attention deficient hyperactivity disorder (ADHD), mental retardation, etc. Dr. Okazawa will focus on DAMPs/alarmins-mediated pathologies in dementia including Alzheimer’s disease. Dr. Ueda will show the unique molecular mechanism for extracellular release of prothymosin alpha, one of neuroprotective DAMPs/alarmins. Finally, Dr. Kawabata will talk about the role of HMGB1 and PRRs including the receptor of advanced glycation end-products (RAGE), TLRs and chemokine receptors in the pathogenesis of neuropathic pain. In this symposium, we believe that basic researchers, clinical neuroscientists, physicians, employees of pharmaceutical companies, etc. will learn the cutting-edge information concerning the roles of DAMPs/alarmins and PRRs in diverse neurological disorders, which will contribute to the development of novel therapeutic strategies in future.

S38-1 Toll-Like Receptors Regulate Neuronal Morphology, Function, and Disorders
Yi-Ping HSUEH
Institute of Molecular Biology, Academia Sinica, Taiwan

S38-2 Targeting HMGB1-mediated expansion of neurodegeneration at the ultra-early phase pathology of Alzheimer’s disease
Hitoshi OKAZAWA
Department of Neuropathology, Tokyo Medical and Dental University, Japan

S38-3 Non-classical and non-vesicular release of neuroprotective DAMPs/Alarmins prothymosin α following ischemic stress
Hiroshi UEDA
Department of Molecular Pharmacology, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, Japan

S38-4 Role of HMGB1 and PRRs in pain processing
Atsufumi KAWABATA
Lab. of Pharmacology & Pathophysiology, Faculty of Pharmacy, Kindai University, Higashi-Osaka, Japan

Discussants: Katsuo TOIDE (Neuroscience Drug Discovery Consulting, Japan)
Fumiko SEKIGUCHI (Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University, Japan)
Psychiatric disorders are complex and occur in individuals with a genetic predisposition following an encounter with deleterious environmental factors. The interaction between environment and the genome occurs through epigenetic mechanisms and the outcome is to cause changes in gene expression. This knowledge underpins the ongoing use of human postmortem CNS to understand the pathophysiologies of psychiatric disorders by identifying the changes in molecular cytoarchitecture brought about by changed gene expression. In Japan efforts are being made to create a Network of Brain Banks that will include tissue from subjects with psychiatric disorders. However, there is already collaborations between Japanese scientists and the Melbourne Psychiatric Brain Bank that are shedding light on the pathophysiology of psychiatric disorders. The objective of this symposium is to update delegates on outcomes from the study of brain tissue from the brain bank and how they are advancing knowledge on the molecular pathology of psychiatric disorders. The first speaker, Brian Dean, will provide a brief description of the Melbourne Psychiatric Brain Bank and will then review how recent studies of the cortical human transcriptome using tissue from the Brain Bank are providing new information on the underlying pathophysiologies of schizophrenia, major depressive disorders and bipolar disorders. Whilst such transcriptomics data are increasing knowledge of the potential causes of psychiatric disorders, the challenge remains as to how such “omics” data can be interpreted. Hence, the second presenter, Hirotaka Sekiguchi, will present new data on changes in levels of the cortical and sub-cortical dopamine transporter in schizophrenia and mood disorders. These data will be used to suggest mechanisms by which changes in dopamine homeostasis is involved in the pathophysiologies of schizophrenia and major depressive disorders. The final two speakers in the Symposium will focus on changes in lipid metabolism in the corpus callosum from subjects with schizophrenia. Neuroimaging studies have suggested changes in the corpus callosum are particularly prevalent in schizophrenia. The corpus callosum is the bridge between the brain hemispheres containing wide thick nerve tracks. Hence, changes in the functioning of lipids such as phospholipids and sphingolipids in this CNS region would have profound effects on CNS function. Hence, the third speaker, Chie Shimamoto-Mitsuyama, will review evidence that suggests changed lipid metabolism may be present in the corpus callosum from subjects with schizophrenia. The Symposium will close with the forth speaker, Kayoko Esaki, who will argue there is changes in the regulation of sphingolipid-signaling pathway in the corpus callosum from schizophrenia. In conclusion, this symposium will provide an update to the delegates at AsCNP on new findings, predominantly by young Japanese scientists, on the molecular pathophysiologies of schizophrenia and mood disorders.

**S39-1 Changes in cortical gene expression suggest altered interplay between neurotransmitter, developmental and inflammatory pathways in schizophrenia**

Brian DEAN1,2,3, Madhara UDAWELA1,2, Elizabeth SCARR1,2,4,
1Laboratory for Molecular Psychiatry, Center for Brain Science, RIKEN, Japan,
2Department of Pharmacology, Kurume University School of Medicine, Japan,
3Molecular Psychiatry Laboratory, Florey Institute of Neuroscience and Mental Health, Parkville, Victoria, Australia,
4Molecular Psychiatry Laboratory, Florey Institute of Neuroscience and Mental Health, Australia

**S39-2 Altered lipid metabolism of the corpus callosum of patients with schizophrenia**

Chie SHIMAMOTO MITSUYAMA1, Kayoko ESAKI1, Tetsuo OHNISHI1, Motoko MAEKAWA1, Yoshimi IWAYAMA1, Shabees BALAN1, Brian DEAN2, Takeo YOSHIKAWA1,
1Laboratory for Molecular Psychiatry, Center for Brain Science, RIKEN, Saitama, Japan,
2Molecular Psychiatry Laboratory, Florey Institute of Neuroscience and Mental Health, Australia

**S39-3 Dysregulation of sphingolipid-signaling pathway in the corpus callosum from schizophrenia postmortem brain**

Kayoko ESAKI1, Akiko WATANABE1, Yoshimi IWAYAMA1, Chie SHIMAMOTO MITSUYAMA1, Hisako OHBA3, Yoshio HIRABAYASHI1, Brian DEAN2, Takeo YOSHIKAWA1,
1Lab. for Molecular Psychiatry, Center for Brain Science, RIKEN, Japan,
2Institute for Environmental and Gender-Specific Medicine, Univ. of Juntendo, Japan,
3The Florey Institute of Neuroscience and Mental Health, Australia

**S39-4 Changed levels of the dopamine transporter in schizophrenia and major depressive disorders: Differences in cortex and striatum.**

Hirotaka SEKIGUCHI1, Geoff PAVEY2, Brian DEAN2,
1Okehazama Hospital Fujita Mental Care Centre, Aichi, Japan, 2The Florey Institute of Neuroscience and Mental Health, Melbourne, Australia

Discussant: Akinori NISHI (Department of Pharmacology, Kurume University School of Medicine, Japan)
Sixty years have passed since the antipsychotic effects of chlorpromazine and the antidepressant effects of imipramine were discovered in the 1950s. Since then, many antipsychotics and antidepressants have been studied and developed, based on the excessive dopamine hypothesis of schizophrenia and monoamine hypothesis of depression. Regarding antipsychotic drugs, several studies have clarified that the action mechanism of typical antipsychotic drugs was dopamine D2 receptor antagonist. Subsequently, other agents were also developed, such as serotonin-dopamine antagonist (SDA) and dopamine D2 receptor partial agonist. These drugs succeeded in alleviating extrapyramidal symptoms and in overcoming excessive sedative actions and hyperprolactinemia among issues caused by the use of typical antipsychotic drugs. However, their clinical effects are insufficient, and the development of excellent antipsychotic drugs that can effectively alleviate the negative symptoms and cognitive dysfunctions are awaited. Regarding antidepressants, some studies have elucidated that the action mechanisms of imipramine are serotonin and noradrenalin reuptake inhibition. With imipramine as a starter, tricyclic and tetracyclic antidepressants were developed. After these, in the pursuit of drugs that ensure the efficacy of tricyclic antidepressants and eliminate adverse events, drugs were developed such as selective serotonin reuptake inhibitor (SSRI), which selectively inhibits the reuptake of serotonin, and serotonin-norepinephrine reuptake inhibitor (SNRI). In addition, tetracyclic antidepressants developments led to noradrenergic and specific serotonergic antidepressant (NaSSA), which does not inhibit monoamine reuptake. However, antidepressants with a fast onset of effect and a more powerful clinical effect remain awaited. Looking at the treatment of neurological diseases, particularly of Alzheimer-type dementia, successful developments were made in drugs that improve symptoms, such as cholinesterase inhibitor and NMDA receptor antagonist. However, all the other developments made in many chemical compounds with other action mechanisms have resulted in failure in clinical trials.

Under these circumstances, we planned this symposium to provide information about some noteworthy new drugs for treating psychiatric and neurological diseases that are based on new action mechanisms. We hope that this project will help global researchers to gain insights into drug development. We also strongly hope that these drugs with new action mechanisms will be approved and marketed to provide new therapeutic values for patients. We expect that the understanding of the basic pathology of relevant neuropsychiatric diseases can be deepened through research on the relationship between “new action mechanism” and “observed clinical effect” in the future.

*Presentations of this symposium are also presented as posters.
Poster No.: DDR-1 ~ DDR-11
Poster display: October 11 (Fri) – 13 (Sun)
Poster discussion: October 13 (Sun) 16:40 – 18:10
Venue: Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall).
Cognitive impairments, neuroimaging and genetics in chronic methamphetamine users and ketamine users

Organizer / Chair: Yinhui LIÃO (Mental Health Institute, The Second Xiangya Hospital, Central South University, China)
Co-chair: Kenji MATSUMOTO (Tamagawa University, Brain Science Institute, Japan)

Methamphetamine and ketamine are commonly used drugs. In this symposium, we will present the abnormalities of cognitive function, neuroimaging and genetics in chronic methamphetamine users and ketamine users.

Besides cognitive impairments, chronic methamphetamine use also associates with bad psychological wellbeing. To verify these consequences, 54 MA addicts and 58 healthy controls completed the cognitive assessment battery and functional magnetic resonance imaging (fMRI) scan at baseline and six-month follow-up. MA users exhibited cognitive impairments at baseline, but their performance was improved at the six-month abstinence. MA users showed less activation in left precuneus, cingulate cortex, and bilateral cerebellum anterior lobe during cognitive task.

Chronic use of methamphetamine also induces psychosis. In order to investigate epigenetic mechanism of methamphetamine induced psychosis (MIP), this study collected peripheral blood leukocytes from subjects. Illumina Infinium Human Methylation 450K was performed to discover DNA methylation sites related to MIP and non-MIP. After analyzing the functions and signaling pathways by using DAVID and GO database, candidate genes (n=7) were verified by Taqman probe qPCR (Methylight) between patients with methamphetamine use disorder (MUD) with MIP (n=99, follow-up 15) compared to patients with MUD without MIP (n=150) and health controls (n=282). This study preliminary suggests that hypermethylation of APL03, UBAb, KIF17, MILLT3 and GRM8 might be the epigenetic mechanism of MIP.

Previous neuroimaging studies have provided evidence of grey matter and white matter abnormalities in chronic ketamine users. However, little is known about whether or not these abnormalities cause disruption of the topological properties of brain structural networks and cortical gray matter loss. The aim of the study was to assess the disruption of small-world networks drug-induced cortical gray matter loss in 41 chronic ketamine users with 44 matched healthy controls. Chronic ketamine users showed decreased clustering coefficient (Cp), gamma, sigma and local efficiency, but the length path (Lp) and global efficiency remained unchanged. Small-world network properties were negative associated with quality of ketamine; clustering coefficient were negative associations psychiatric symptoms measured by PANSS in chronic ketamine users. Chronic ketamine users had gray matter thickness reduction in several brain regions, such as the lateral Superior Parietal Cortex, the lateral Superior Frontal Cortex, the lateral Fusiform Gyrus, and the right Cuneus.
REAP started in 1999 and continued for 20 years. During the past 20 years, more than 75 papers have been published at peer reviewed journals. In addition, REAP has strengthened research collaboration among psychiatrists and pharmacologists in Asian countries. This symposium will report the recent findings and activities of REAP.

**S42-1 REAP survey and recent development**
Chay Hoon TAN  
National University of Singapore, Singapore

**S42-2 Antipsychotic prescribing trends in Asia**
Mian-Yoon CHONG1, 2  
1Chang Gung Memorial Hospital, ChiaYi, Taiwan, 2Chang Gung University School of Medicine, Taiwan

**S42-3 Clinical use of mood stabilizers in REAP study- beyond the treatment for bipolar disorder**
Shu-Yu YANG1, Shih-Ku LIN2  
1Department of Pharmacy, Taipei City Hospital, Songde Branch, Taiwan, 2Department of Psychiatry, Taipei City Hospital, Songde Branch, Taiwan

**S42-4 Clinical Correlates of Cannabis Use in Asian Patients with Schizophrenia: The REAP-AP**
Seon-Cheol PARK  
Department of Psychiatry, Inje University College of Medicine, Korea

**S42-5 REAP case-vignette survey (REAP-CV) for clarifying psychiatrists’ decision-making process of therapeutic choice: International comparison analysis**
Takahiro A. KATO1, Naotaka SHINFUKU2, Shigenobu KANBA3  
1Department of Neuropsychiatry, Graduate School of Medical Sciences, Kyushu University, Japan, 2International Center for Medical Research and Treatment, Kobe University, Japan

Discussants: Mian-Yoon CHONG (Chang Gung Memorial Hospital, Taiwan)  
Toshiya INADA (Department of Psychiatry and Psychobiology, Nagoya University Graduate School of Medicine, Japan)
The multidimensional approach to treatment response in major depression

**Organizer / Chair:** Po-Hsiu KUO (Institute of Epidemiology and Preventive Medicine, National Taiwan University, Taiwan)

**Co-chair:** Osamu SHIRAKAWA (Department of Neuropsychiatry, Kindai University, Faculty of Medicine, Japan)

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Treatment-resistant depression, a complex clinical problem caused by multiple risk factors, is targeted by integrated therapeutic strategies. Augmentation strategies are commonly applied when an individual is unresponsive to antidepressant monotherapy. But the efficacy and safety of lamotrigine augmentation in patients with treatment-resistant MDD remain inconclusive. Prof. Lu will present “Lamotrigine augmentation in treatment-resistant depression: A comprehensive meta-analysis of efficacy and safety.” In this meta-analysis, the evidence for the therapeutic effects and safety profiles of lamotrigine augmentation in patients with treatment-resistant MDD are synthesized. Significant improvements in HAMD scores and response rate were shown in lamotrigine augmentation group compared with control group. Lamotrigine augmentation is well-tolerated in terms of all-cause discontinuation rate and reported adverse events.

Major depressive disorder (MDD) is heterogeneous in clinical presentation and etiology. To better subgrouping MDD patients may help the discovery of pathomechanism and enhance the practice of precision medicine. One way of assessing treatment response is to investigate the naturalistic pattern of psychotropic agents in the early phase of clinical course, and may intuitively reflect the underlying deficits of neurobiology and neurotransmitters in MDD patients. Dr. Chen will present “A Novel Approach to Subgroup First-Episode MDD by Dissecting Psychotropic Loads” to dissect empirical pattern of psychotropic agents use during the first 2 years of clinical course in drug-naïve MDD patients. In total, four groups of MDD patients were extracted, which were featured by short-term antidepressant use, long-term antidepressant use, long-term antidepressant and sedatives use and long-term antidepressant, sedative and antipsychotics use, respectively. The clinical implication of this novel approach will be discussed.

And we intend to study heterogeneous syndromal presentations of MDD patients during a common treatment regimen. Patients’ response to commonly prescribed selective serotonin reuptake inhibitors (SSRIs) varies across individuals and symptoms. Certain genetic variants may modify the effects of SSRIs treatment on different symptom profiles. Prof. Kuo will present “A pharmacogenetics study for treatment responses of SSRI by syndromal features.” We obtained six empirically derived syndromal factors, namely sleep, core, anxiety, somatization, psychomotor, and energy. The degree of syndromal improvement at week-4 was ranged from 33% (energy) to 70% (psychomotor). Using Genome-wide association study design, we found that several markers showed suggested signals with p-value<5×10-06. These loci are potentially involved in modifying treatment response for different empirically defined syndromal factors among SSRIs treated MDD patients.
The patients with neurodegenerative diseases including Alzheimer’s disease or dementia with Lewy body are increasing in the developed countries. It is estimated that the number of patients with dementia will be 74,700,000 people in 2030 all over the world. In an Asian region, the patients with newly diagnosed of dementia are largely increasing in comparison with a prediction of 2012, which occupy 49% of whole new patients. The amount of social security for dementia patients continues rising. Currently, there are no effective treatment options for neurodegenerative diseases. To overcome these diseases, new approaches are necessary. It has been suggested that the involvement of neuroinflammation in neurodegenerative diseases, however, the precise mechanism of neuroinflammation remain to be elucidated. Recently, there have been reported that the pathologies of neurodegenerative diseases are spreading such as prion protein in prion disease. This cell to cell transmission of aggregated protein is called “prion-like propagation”. Prion-like propagation is remarkable in new pathological mechanism of neurodegenerative diseases. Therefore, we are focusing on neuroinflammation by glial cells and propagation of aggregated protein in these diseases. In this symposium, we aim to introduce the recent findings of this field and would like to discuss about disease-modifying therapy for neurodegenerative diseases.

S44-1 Neuroinflammation as the link between modifiable risk factors and dementia
Andis KLEGERIS
Department of Biology, University of British Columbia Okanagan Campus, Canada

S44-2 Neurotoxicity of interferon-gamma-activated human astrocytes
Sadayuki HASHIOKA
Department of Psychiatry, Shimane University, Izumo, Japan

S44-3 Animal models of synucleinopathies: prion-like propagation of alpha-synuclein in non-transgenic animals
Masami MASUDA-SUZUKAKE, Masato HASEGAWA
Dementia Project, Tokyo Metropolitan Institute of Medical Science, Japan

S44-4 Development of tau propagation mice model
Masato HOSOKAWA, Masato HASEGAWA
Dementia Research Project, Department of Dementia and Higher Brain Function, Tokyo Metropolitan Institute of Medical Science, Japan

Discussant: Nobuhisa IWATA (Department of Genome-based Drug Discovery, Graduate School of Biomedical Sciences, Nagasaki University, Japan)
Translational Research regarding pharmacological treatment of ADHD

Organizer / Chair: Masanori ISOBE (Department of Psychiatry, Kyoto University, Japan, / Department of Psychiatry, University of Cambridge, UK)
Co-chair: Masumi INAGAKI (National Institute of Mental Health, NCNP, Japan)

Attention deficit and hyperactivity disorder (ADHD) is a well-known developmental disorder with manifestation of attention deficit, hyperactivity and impulsivity. Substantial progress of drug development has been achieved in ADHD, although many have been serendipitously discovered. Given that cognitive characteristics of ADHD are measurable in animal models and medications are highly effective in patients, ADHD represents a good disease model for translational research. Using a neuropsychopharmacological approach, researchers can gain a greater understanding of the neuronal mechanism of each cognitive symptom and potentially develop new drug treatments. For example, recent studies have shown the baseline-dependent effects of ADHD drugs on attention or impulsivity in animal models, and the difference could be explained at the neuronal and neurochemical levels.

This symposium will introduce recent progress of clinical and non-clinical ADHD researches, and aims to describe what has been achieved and what is to be achieved in translational research of ADHD. The session will also enable a fruitful discussion regarding transparency and mutual exchange between clinical and non-clinical researchers. This should facilitate greater understanding of how translational methods can disentangle pathological physiology of psychiatric disorders with cognitive deficits, through shared pharmacological effects on cognitive behavior.

S45-1 The importance of baseline performance for examining ADHD treatment in rodents
Karly TURNER¹, James PEAK¹, Thomas BURNE²
¹School of Psychology, University of New South Wales, Australia, ²Queensland Brain Institute, The University of Queensland, Australia

S45-2 Rat behavioral model of impulsivity for understanding the pharmacological mechanism of action of ADHD drug
Koji YANO
SHIONOGI & CO., LTD., Japan

S45-3 Pharmacological effect on social cognition of potential candidate drug of ADHD
Masanori ISOBE¹,², Samuel R CHAMBERLAIN²
¹Department of Psychiatry, Kyoto University, Japan, ²Department of Psychiatry, University of Cambridge, UK

S45-4 Dual pathway in ADHD and others
Jianfeng FENG
The institute of science and technology of Brain-inspired intelligence(ISTBI), Fudan University, China

Discussants: Yuta AOKI (Medical Institute of Developmental Disabilities Research, Showa University, Japan) Atsushi SATO (Department of Pediatrics, The University of Tokyo Hospital, Japan)
CINP Symposium - Current and future management of major depressive disorder: challenges and perspectives -

Organizer / Chair: Siegfried KASPER (Department of Psychiatry and Psychotherapy Medical University Vienna, Austria)
Co-chair: Shigeto YAMAWAKI (Center for Brain, Mind and KANSEI Sciences Research, Hiroshima University, Japan)

The challenge for management of major depressive disorder (MDD) is currently focussed on treatment-resistant depression (TRD). This group presents many challenges for patients, physicians as well as in the research community. This symposium aims to evaluate the current status of the field of TRD and reflects the main findings available in the literature, mostly obtained by the colleagues presenting in this symposium. A staging model that distinguishes between “non-responders” (patients who failed to respond to one form of treatment, a condition which is now termed “insufficient response,” “treatment resistant depression” (TRD patients that failed to respond to two or more adequate antidepressant trials), as well as “chronic resistant depression” (CRD, patients being treated with several antidepressants for more than 12 months) seems to be of validity for both researchers as well as for clinical practice. One potential way of improving treatment of TRD is through the use of predictive biomarkers, most likely including genetic parameters in combination with clinical variables. The advent of new treatments may also help by focusing on neurotransmitters other than serotonin, e.g. the glutamatergic system with ketamine demonstrating efficacy data in TRD as well as in depressed patients with suicidality. Furthermore, pharmacological strategies such as the use of a combination therapy with lithium, atypical antipsychotics and other pharmacological agents can improve outcomes, and techniques such as deep brain stimulation and vagus nerve stimulation have shown promising results. Despite consistent advances in the pharmacotherapy of mood disorders in the last decade, high rates of TRD are still a challenging aspect of overall management.

The information obtained in the proposed symposium will be helpful in trying to identify depressed patients who are likely to respond for antidepressant treatment as well as in finding potential drug targets for treatment resistant depression which are promising to develop the next generation of psychotherapeutic agents.

S46-1 Clinical and genetic findings in treatment response of depression
Siegfried KASPER
Department of Psychiatry and Psychotherapy, Medical University of Vienna, Austria

S46-2 Understanding mechanisms of antidepressant response
Pierre BLIER
The University of Ottawa, Canada

S46-3 The glutamatergic approach to depression: the changing landscape
Carlos A ZARATE
NIH/NIMH, USA

Discussant: Toshifumi KISHIMOTO (Department of Psychiatry, Nara Medical University, Japan)
Stimulant abuse and addiction represents one of the most significant issues in public health. Currently, no medications or replacement therapy can effectively reduce drug craving or prevent relapse. Integration from clinical and animal research would advance our understanding of the etiological processes and facilitate the development of better therapeutic strategies. In this symposium, we organized four oral reports covering novel findings in cocaine and methamphetamine (METH) addiction and animal models of extinction and relapse. First, the hypothalamus contains dopaminergic neuronal groups and has been widely implicated in motivated behavior. It is likely that the hypothalamic circuit plays an important role in the clinical manifestations and etiological processes of cocaine addiction. Dr. Li CS explores how the hypothalamus may be involved in cue induced craving in relation to addiction severity in abstinent chronic cocaine users. Second, METH can cause psychosis that closely resembles the symptoms observed in schizophrenia, making the differential diagnosis very challenging. Dr. Huang MC examines the distinct resting-state functional connectivity patterns characterizing individuals with METH-induced persistent psychosis in comparison to age-, gender-, and education-matched METH abusers with brief psychosis, those with no psychosis, schizophrenia patients and healthy controls. Next, prefrontal glutamate is known to deliver a powerful extinction signal to extinguish the aversive memory. To explore if prefrontal glutamate projection would play a similar role in appetitive extinction, Dr. Chen JC applies optogenetics on vGluT2-Cre and parvalbumin-Cre mice and tests if photo-manipulation of frontal glutamate or ventral tegmental area GABA neural activity could modulate extinction memory in a METH-conditioned place preference (CPP) mice model. Finally, acupuncture has been successfully used to treat drug addiction since the 1970s. However, the mechanism of acupuncture in drug addiction has not been clarified. MS graduate student, Nguyen Ai TM presents her recent study exploring the effect of electroacupuncture (EA) at acupoints LI4 and LI11 on the reinstatement of cocaine-induced CPP, as well as c-Fos and ∆FosB protein expression in the nucleus accumbens after EA treatment. The findings suggest that EA at LI4 and LI11 may help in preventing cocaine relapse and could be considered as a formula for acupuncture treatment in cocaine addiction.

S47-1 Hypothalamic response to cocaine cues and cocaine addiction severity
Chiang-Shan R. LI, Sheng ZHANG, Simon ZHORNITSKY, Gustavo ANGARITA
Yale University, USA

S47-2 The Distinct Patterns of Functional Dysconnectivity of Brain Between Methamphetamine Abusers with and without Persistent Psychosis in Comparison to Patients with Schizophrenia
Ming-Chyi HUANG1, Chia-Wei LI2
1Department of Psychiatry, Taipei City Psychiatric Center, Taipei, Taiwan,
2Department of Radiology, Wan Fang Hospital, Taipei Medical University, Taipei, Taiwan

S47-3 Significance of Neural Circuitry of Prefrontal Cortex to Ventral Tegmental Area in the Extinction of Methamphetamine Conditioned Place Preference
Jin-Chung CHEN1, Ting-Yu WU1, Hao-Cheng CHANG1, Tsung HUANG2, Ya-Tin LIN1
1Department of Physiology and Pharmacology, Graduate Institute of Biomedical Sciences, Chang Gung University, Taiwan,
2Department of Medicine, School of Medicine, Chang Gung University, Taiwan

S47-4 Electroacupuncture attenuates cocaine-induced conditioned place preference and modulates ∆Fos protein expression in mice
Ai T.M. NGUYEN1, Hsin-Yi CHUNG2, Sih-Ting LUN2, Yu-Ting JHU1, Yi-Hung CHEN1, 4, Hsien-Yuan LANE1, 4
1Graduate of Chinese Medicine, China Medical University, Taiwan, 2Graduate Institute of Acupuncture Science, China Medical University, Taiwan,
3Graduate Institute of Biomedical Sciences, China Medical University, Taiwan,
4Center for Drug Addiction and Mental Health, China Medical University, Taiwan

Discussant: Tomohisa MORI (Department of Pharmacology, Hoshi University, Japan)
Basic and Translational Research in Epilepsy

Organizer / Chair: Zhong CHEN (Department of Pharmacology, College of Pharmaceutical Sciences, School of Medicine, Zhejiang University, China)

Co-chair: Kazuhiko YANAI (Department of Pharmacology, Tohoku University Graduate School of Medicine, Japan)

Epilepsy is a disease characterized by recurrent seizures, which are transient symptoms of abnormal, excessive, or synchronous neuronal activity in the brain. It affects more than 50 million people worldwide. Antiepileptic drugs (AEDs) are the mainstay of the management of epilepsy for most patients. The majority of the AEDs used in the clinic work by either reducing brain excitability or by enhancing inhibition both of which disrupt normal functioning and lead to many side effects. Still, many patients are not able to achieve adequate control and they require lifelong medication, a situation rife with long-term disruptive side effects that even worsen the initial condition. Poor control of seizures and seizure-related serious injuries and complications are a heavy burden for patients and for society. Thus, the development of safe and effective new drugs or novel therapeutic approaches for controlling seizures in people with drug-resistant epilepsy represents a major clinical goal. Recent years saw substantial progress in the field of epilepsy relevant to preclinical and clinical epilepsy research, such as development of new AED targets, novel optogenetic or chemogenetic approaches control of epileptic seizure, finding of new epileptogenetic genes, neural circuit mechanism of epilepsy based on multiple-channels EEG recording and imaging, the updated clinical epilepsy definition, and so on. All of these would be very important to improve management of the epilepsies in the future.

S48-1 Pivotal roles of Cl⁻ homeostasis in epileptogenesis of human and animal models
Atsuo FUKUDA
Department of Neurophysiology, Hamamatsu University School of Medicine, Hamamatsu, Japan

S48-2 Detecting/Predicting seizures with intracerebral EEG - therapeutic opportunities
Mark J. COOK
The Graeme Clark Institute, University of Melbourne, Australia

S48-3 Synapse pruning by microglia in epileptogenesis
Ryuta KOYAMA
Lab. of Chemical Pharmacology, Graduate School of Pharmaceutical Sciences, The University of Tokyo, Tokyo, Japan

S48-4 Subicular microcircuit in temporal lobe epilepsy
Zhong CHEN
Department of Pharmacology, College of Pharmaceutical Sciences, School of Medicine, Zhejiang University, China

Discussant: Motohiro OKADA (Department of Neuropsychiatry, Mie University, Japan)
Psychosocial adverse conditions involving interpersonal processes are among the strongest proximal risk factors for mood disorders. A biologically plausible, multilevel theory that links experiences of social adverse conditions with internal neuroimmune mechanisms that drive pathogenesis for mood disorders has been proposed. Central to this neuroimmune mechanism hypothesis is a novel axis of immune-to-brain bidirectional communication that influences mood and behavior. Under social adverse conditions, sympathetic nervous system can up-regulate myelopoiesis, monocyte trafficking and the expression of pro-inflammatory genes encoding a conserved transcriptional response to adversity (CTRA). The elevated pro-inflammatory cytokines caused by central microglia activation and recruitment of monocytes to the brain contribute to development of mood symptoms such as anhedonia, aggression, psychomotor retardation and social-behavioral withdrawal. Previous studies had suggested that the serum CRP, TNF-alpha levels are to be used as a biomarker for mood status and a predictor of treatment response in mood disorders. Clinical trials that used anti-inflammatory medications as adjunct pharmacotherapy in treating mood disorders. Besides, the neuroimmune mechanisms might link mood disorders with multiple system co-morbidities and sequential dementing change. Insights from this theory may thus shed light on understanding of immune-to-brain bidirectional communications, the role of psychosocial adverse conditions, the neuroimmune mechanisms of co-morbidities and late life consequence in mood disorders.

S49-1 A comparison study of metabolic, immune and brain grey matter volume between patients with bipolar disorder and depressive disorder
Yae Mei BAI1, 2, 3, Mu Hong CHEN1, 2, 3, Ju Wei HSU1, 2, 3, Kai Lin HUANG1, 2, 3, Pei Chi TU1, 2, 3, 4, Tung-Ping SU3, 6, Cheng Ta LI1, 2, 3, Wei Chen LIN1, 2, 3, Shih Jen TSAI1, 2, 3
1Department of Psychiatry, Taipei Veterans General Hospital, Taipei, Taiwan,
2Division of Psychiatry, Faculty of Medicine, National Yang-Ming University, Taipei, Taiwan,
3Institute of Brain Science, National Yang-Ming University, Taipei, Taiwan,
4Department of Medical Research, Taipei Veterans General Hospital, Taipei, Taiwan,
5Department of Philosophy of Mind and Cognition, National Yang-Ming University, Taipei, Taiwan,
6Department of Psychiatry, Cheng Hsin General Hospital, Taipei, Taiwan

S49-2 Omega-3 in mood disorder: Focus on neuroinflammation
Jane Pei-Chen CHANG1, 2
1Department of Psychological Medicine, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, UK,
2Department of Psychiatry, China Medical University Hospital, Taichung, Taiwan

S49-3 Multiple target molecules in the treatment of inflammation-related mood disorders
Hiroshi KUNUGI
Department of Mental Disorder Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, Japan

S49-4 Neuroimmune Mechanisms of Mood Disorder: A Translational Perspective
Po See CHEN1, Ya-Mei BAI1, Jane Pei-Chen CHANG2, Masahiro OHGIDANI3, Hiroshi KUNUGI3
1Department of Psychiatry, College of Medicine, National Cheng Kung University, Taiwan,
2Division of Psychiatry, Faculty of Medicine, National Yang-Ming University, Taiwan,
3Department of Psychological Medicine, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, London UK,
4Department of Neuropsychiatry, , Graduate School of Medical Sciences, Kyushu University, Japan,
5Department of Mental Disorder Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, Japan

S49-5 Rescue of cytokines-induced reduction of human neurogenesis and increase in apoptosis by omega-3 fatty acids
Alessandra BORSINI1, Anna NICOLAU2, Maria Dolores CAMACHO-MUNOZ2, Kuan-Pin SU3, Patricia ZUNSZAIN4, Carmine Maria PARIANTE1
1Section of Stress, Psychiatry and Immunology Laboratory, Institute of Psychiatry, Psychology and Neuroscience, Department of Psychological Medicine, King’s College London, UK,
2Division of Pharmacy and Optometry, School of Health Sciences and Lydia Becker Institute of Immunology and Inflammation, Faculty of Biology, Medicine and Healthy, The University of Manchester, UK,
3Department of Psychiatry & amp; M ind-Body Interface Laboratory (MBI-Lab), China Medical University Hospital; College of Medicine, China Medical University, Taichung, Taiwan

Discussants: Masaaki IWATA (Division of Neuropsychiatry, Department of Brain and Neuroscience, Tottori University Faculty of Medicine, Japan)
Masahiro OHGIDANI (Department of Neuropsychiatry, Kyushu University, Japan)
New frontier of bio-markers and therapeutics in Dementia

Organizer / Chair: Kohji FUKUNAGA (Department of Pharmacology, Tohoku University Graduate School of Pharmaceutical Sciences, Japan)

Co-chair: Masatoshi TAKEDA (Osaka Kawasaki Rehabilitation University, Japan)

Novel therapeutic strategies are rapidly developing in the Asian countries including Japan and Taiwan. Dr Rita P-Y Chen is young reader in Taiwan Neuroscience Society and discovered intranasal delivered peptide as Alzheimer disease (AD) therapeutics. Dr Kohji Fukunaga also introduce novel disease-modifying therapeutics for Lewy body disease. Moreover, to clinical investigation for those novel therapeutics, the physician should recruit early MCI patients to prevent the disease progression. In this context, Dr Manabu Ikeda will give us the genetic background information for AD and DLB diagnosis. And Dr Yang form Taiwan introduce super sensitive immunoassay technology for AD and DLB. Taken together, in this symposium, we provide not only attractive candidate for AD and DLB therapy, but also new information of biomarker for neurodegenerative disease diagnosis. We also invite young investigators as discussants who are working on AD and DLB research. We take more time to discuss deeply in the biomarker and therapeutics with young investigators in the symposium.

S50-1 Two new strategies for preventing Alzheimer’s Disease
Rita PY CHEN1, 2
1Institute of Biological Chemistry, Academia Sinica, Taiwan, 2Institute of Biochemical Sciences, National Taiwan University, Taiwan

S50-2 Discovery of Disease-modifying Drug Inhibiting Alpha-synuclein Aggregation in Lewy Body Dementia
Kohji FUKUNAGA
Department of Pharmacology, Tohoku University Graduate School of Pharmaceutical Sciences, Japan

S50-3 Heading toward Precision Medicine for Alzheimer’s Disease
Takashi MORIHARA1, Kenichi NAGATA1, Luc PAILLARD2, Satoshi OBIKA3, Yuya KASAHARA4, Michael SILVERMAN5, Hiroyasu AKATSU6, Yoshio HASHIZUME7, Manabu IKEDA1
1Dept of Precision Medicine for Dementia, Osaka University Graduate School of Medicine, Japan, 2Université de Rennes 1, France, 3Graduate School of Pharmaceutical Sciences, Osaka University, Japan, 4Center for Drug Design Research, National Institute of Biomedical Innovation, Japan, 5Centre for Drug Design Research, Simon Fraser University, Canada, 6Dept of Psychiatry, Osaka University Graduate School of Medicine, Japan

S50-4 Differential screening among AD, PD and FTD using plasma-biomarker panel
Shieh-Yueh YANG1, Ming-Jang CHIU2, Chin-Hsien LIN3, Wei-Chi LIN3, Fu-Chi YANG4, Pai-Yi CHIU5, W.P. CHEN5, H.C. LIU1
1MagQu Co., Ltd., Xindian District, New Taiwan City, Taiwan, 2Department of Neurology, National Taiwan University Hospital, Taipei, Taiwan, 3Department of Diagnostic Radiology, Chang Gung Memorial Hospital and Chang Gung University, College of Medicine, Kaohsiung, Taiwan, 4Department of Neurology, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan, 5Department of Neurology, Show Chwan Memorial Hospital, Changhua City, Changhua County, Taiwan

Discussants: Yasushi YABUKI (Department of Pharmacology, Tohoku University Graduate School of Pharmaceutical Sciences, Japan)
Ichiro KAWAHATA (Department of Pharmacology, Tohoku University Graduate School of Pharmaceutical Sciences, Japan)
Symposium-51

October 13 (Sun), 10:30-12:10 / Room 16 (Fukuoka Sunpalace Hotel & Hall, 2F, Heian)

Multifaceted Roles of Orexins: Sleep, Pain and Reward Regulations

Organizer / Chair: Lih-Chu CHIOU (Graduate Institute of Brain and Mind Sciences, Department of Pharmacology, College of Medicine, National Taiwan University, Taiwan)

Co-chair: Hiroshi NAGASE (International Institute for Integrative Sleep Medicine, University of Tsukuba, Japan)

Orexin A and orexin B, also named “hypocretin 1” and “hypocretin 2,” are a pair of neuropeptides derived from prepro-hypocretin. Orexin-expressing neurons are limited, mostly in the perifornical area and lateral hypothalamus, however project widely throughout the central nervous system. Orexins are found to mediate various neuro-cognitive functions, depending on the distributions of the receptors, namely OX1 and OX2 receptors. Interestingly, orexins often work hand-in-hand with other neuropeptides in the CNS to execute their regulatory roles. Complexed neuropeptide network, with orexins holding the pivotal role, were previously reported in sleep, pain and reward regulations. Pathological conditions related to these processes, including narcolepsy, chronic pain and substance abuse, are unmet medical needs. In this symposium, 4 speakers are going to present their extensive works on the roles of orexins in sleep, pain and reward regulations. The scope encompasses the basic sciences underlying these discoveries, and the translational potentials of the orexin system in clinical setting.

S51-1 Narcolepsy and orexin - Orexin deficiency and clinical symptoms of narcolepsy -
Makoto HONDA¹,²
¹Tokyo Metropolitan Institute of Medical Science, Japan, ²Seiwa Hospital, Institute of Neuropsychiatry, Japan

S51-2 Stress induces analgesia via an orexin-initiated endocannabinoid signaling
Ming Tatt LEE¹,²,³, Yu-Chun CHIU², Hsin-Jung LEE², Lih-Chu CHIOU²,³,⁴
¹Faculty of Pharmaceutical Sciences, UCSI University, Kuala Lumpur, Malaysia, ²Graduate Institute of Pharmacology, National Taiwan University College of Medicine, Taiwan, ³Graduate Institute of Brain and Mind Sciences, National Taiwan University College of Medicine, Taiwan, ⁴Graduate Institute of Acupuncture Science, China Medical University, Taichung, Taiwan

S51-3 A novel opioid-independent mechanism for acupuncture analgesia: The orexin-endocannabinoid signaling
Yi-Hung CHEN¹, Hsin-Jung LEE², Ming Tatt LEE², Ya-Ting WU¹, Yen-Hsien LEE³, Ling-Ling HWANG⁵, Ming-Shiu HUNG⁴, Andreas ZIMMER⁶, Ken MACKIE⁷, Lih-Chu CHIOU⁸
¹Graduate Institute of Acupuncture Science, China Medical University, Taiwan, ²Department of Pharmacology, College of Medicine, National Taiwan University, Taipei, Taiwan, ³Graduate Institute of Pharmacology, National Taiwan University College of Medicine, Taiwan, ⁴Graduate Institute of Biomedical Science, Taipei Medical University, Taipei, Taiwan, ⁵Institute for Molecular Psychiatry, University of Bonn, Bonn, Germany, ⁶Gill Center and the Department of Psychological and Brain Sciences, Indiana University, Bloomington, Indiana, USA

S51-4 Involvement of the orexin-endocannabinoid signaling in stress-induced cocaine seeking
Lih-Chu CHIOU²,³,⁴, Li-Wei TUNG¹, Li-Yang CHANG¹, Guan-Ling LU¹, Yen-Hsien LEE¹, Lung YU¹, Hsin-Jung LEE², Shiu-Fang TENG¹, Ling-Ling HWANG⁴,⁵, Ming-Shiu HUNG³, Ken MACKIE⁶, Andreas ZIMMER⁸
¹Graduate Institute of Pharmacology, College of Medicine, National Taiwan University, Taiwan, ²Department of Pharmacology, College of Medicine, National Taiwan University, Taipei, Taiwan, ³Graduate Institute of Brain and Mind Sciences, College of Medicine, National Taiwan University, Taiwan, ⁴Graduate Institute of Biomedical Science, Taipei Medical University, Taipei, Taiwan, ⁵Department of Physiology, Taipei Medical University, Taipei, Taiwan, ⁶Institute of Behavioral Medicine, College of Medicine, National Cheng Kung University, Tainan, Taiwan, ⁷Institute of Biotechnology and Pharmaceutical Research, National Health Research Institutes, Zhunan, Miaoli County, Taiwan, ⁸Gill Center and the Department of Psychological and Brain Sciences, Indiana University, Bloomington, Indiana, USA

Discussants: Akihiro YAMANAKA (Research Institute of Environmental Medicine, Nagoya University, Japan)  
Makoto TSUDA (Department of Life Innovation, Graduate School of Pharmaceutical Sciences, Kyushu University, Japan)
How should our journals be? ~ Clinical Psychopharmacology and Neuroscience & Neuropsychopharmacology Reports ~

Organizer / Chair: Duk-In JON (Department of Psychiatry, College of Medicine, Hallym University, Korea)
Tsuyoshi MIYAKAWA (Institute for Comprehensive Medical Science, Fujita Health University, Japan)

The Asian College of Neuropsychopharmacology (AsCNP) has two associate journals: Clinical Psychopharmacology and Neuroscience (CPN), and Neuropsychopharmacology Reports (NPPR). CPN and NPPR are the official journals of the Korean College of Neuropsychopharmacology (KCNP) and the The Japanese Society of Neuropsychopharmacology (JSNP), respectively, and both of the journals are open-access. In this symposium, the editors in chief of CPN and NPPR will introduce these journals, and will discuss their future directions with authors published in the journals and audiences, including the aspect of Open Science.

S52-1 Game Change of Scholarly Publishing Driven by Open Science and its Policy
Kazuhiro HAYASHI
National Institute of Science and Technology Policy, Japan

S52-2 Neuropsychopharmacology Reports: An Ideal Journal for the Open Science Era
Tsuyoshi MIYAKAWA
Fujita Health University, Japan

S52-3 A Randomized Controlled Study on the Effect of Ifenprodil on Alcohol Use in Patients with Alcohol Dependence: Expectations of Neuropsychopharmacology Reports
Nagisa SUGAYA
Unit of Public Health and Preventive Medicine, School of Medicine, Yokohama City University, Japan

S52-4 Clinical Psychopharmacology and Neuroscience: Covering the results from basic research to clinical studies
Jung Goo LEE
Department of Psychiatry and Paik Institute for Clinical Research, Inje University, Korea

S52-5 The question of distinguishing paid- and open-access scientific journals
Winston W. SHEN
Departments of Psychiatry, Wan Fang Medical Center and College of Medicine, Taipei Medical University, Taiwan

Discussant: Hisatsugu KOSHIMIZU (Institute for Comprehensive Medical Science, Fujita Health University, Japan)
Recent technological breakthroughs for manipulating and recording the activity of specific cell populations in defined circuits have resulted in dramatic advances in our understanding of the brain mechanisms mediating learning and memory that is modulated by emotion, decision making and so on. In parallel, a large amount of work has demonstrated that monoamines such as serotonin and dopamine play key modulatory roles in the regulation of emotion and learning and memory. However, our understanding remains incomplete, and central questions remain as to how monoamines regulate various forms of learning and memory and how these effects may become disrupted in pathological states. In this symposium, we bring together investigators who have approached these questions from different directions. The objective of the symposium is to introduce cutting edge studies investigating mechanisms for regulation of learning and memory by monoamines at the molecular, cellular and circuits levels. Balleine will present experiments investigating the role of dopamine signaling in the dorsomedial striatum in the acquisition of goal-directed actions, particularly as it relates to learning-related plasticity in direct and indirect pathway medium spiny neurons. Holmes will discuss recent findings showing that discrete serotonin circuits differentially modulate the formation of aversive memories and risky decision-making, and discuss pharmacological data showing how these circuit-level effects require signaling through distinct 5-HT receptor subtypes. Kida will discuss roles of hippocampal dopamine signals in retrieval of memory – showing that hippocampal circadian clock regulates retrieval of hippocampus-dependent memory via signal transduction composed of Dopamine-D1/D5R-cAMP-PKA-AMPA receptor GluA1 phosphorylation at S845.

S53-1  Dopaminergic modulation of cholinergic function in the ventral striatum mediates the influence of predictive learning on decision-making.
Bernard Walter BALLEINE
UNSW Sydney, Australia

S53-2  Serotonergic modulation of emotional learning
Andrew HOLMES
NIAAA, USA

S53-3  Hippocampal circadian clock regulates memory retrieval via Dopamine and PKA-induced GluA1 phosphorylation
Satoshi KIDA
Graduate School of Agriculture and Life Sciences, The University of Tokyo, Tokyo, Japan

Discussants: Ayako WATABE (Institute of Clinical Medicine and Research, Jikei University School of Medicine, Japan)
Hotaka FUKUSHIMA (Department of Bioscience, Faculty of Life Sciences, Tokyo University of Agriculture, Japan)
Clozapine is considered the gold standard treatment for patients with treatment-refractory schizophrenia (TRS), but a recent network meta-analysis raises questions about its relative superiority over other second-generation antipsychotics such as olanzapine and risperidone. In this symposium, we will discuss evidence for the superior efficacy of clozapine treatment not only for psychotic symptoms, but also for the negative symptoms and emotional symptoms of TRS, including our recent clinical findings of clozapine’s efficacy for “treatment adherence”, “re-hospitalization”, and “seclusion”, and the utility of plasma clozapine levels for assessing its efficacy. In addition, we will present basic research findings regarding the effects of clozapine on the amygdala dopamine system in fear-conditioned animals. The data suggest specific actions of clozapine on emotional cognitive-processing comparing with other antipsychotics. These presentations suggest future standards for more efficient clozapine treatment strategies for patients with TRS.

S54-1 Clinical, functional and cognitive difference of patients with treatment resistant schizophrenia on clozapine and those without clozapine
Sherry Kit Wa CHAN, Christy Lai Ming HUI, Edwin Ho Ming LEE, Wing Chung CHANG, Eric Yu Hai CHEN
Department of Psychiatry, The University of Hong Kong

S54-2 Treatment adherence in treatment-resistant schizophrenia
Hiroyoshi TAKEUCHI1, 2
1Department of Neuropsychiatry, Keio University School of Medicine, 2Schizophrenia Program, Centre for Addiction and Mental Health

S54-3 Utility of Plasma Clozapine Levels in Treatment Resistant Schizophrenia
Jimmy LEE1, 2
1Institute of Mental Health, Singapore, 2Lee Kong Chian School of Medicine, Nanyang Technological University, Singapore

S54-4 Effect of clozapine vs. other second-generation antipsychotics in real-world clinical practice
Fuminari MISAWA
Yamanashi Prefectural KITA Hospital

Discussant: Yasuhiro KANEDA (Department of Psychiatry, Iiwaki Clinic, Japan)
The aging effects on the brain, cognition, and cardiovascular system of patients with severe mental illness

Organizer / Chair: Shang-ying TSAI (Department of Psychiatry, Taipei Medical University and Hospital, Taiwan)
Co-chair: Minoru NARITA (Department of Pharmacology, Hoshi University, Japan)

Background: Patients with severe mental illness (SMI) such as schizophrenia (SCZ) and bipolar disorder (BPD) are vulnerable to developing risk factors for cardiovascular diseases (CVDs), including obesity, smoking habit, hypertension, dyslipidemia, and type 2 diabetes mellitus, but they tend to receive low-quality medical care. Therefore, patients with SMI mainly die from CVDs and lose 1-2 decades of life compared to the general population. However, life expectancy has steadily increased globally; consequently, the numbers of older SMI patients in the general population are expected to increase. Thus, older patients with SMI, particularly those with illness onset at young age, constitute a survivor cohort with unique care needs. Aging is a progressively degenerative process tightly integrated with inflammation. Systemic inflammation probably plays an important role in the development of CVDs and pathophysiology of SCZ and BPD. Therefore, combination of aging and pathophysiology of SMI may accelerate the vascular atherosclerosis and brain alternation underlined by inflammatory mechanism in people with SMI after midlife. Medical burden may exert direct effect on cognition and indirect effects on social functioning. Because social functioning in older SMI patients is affected by symptom severity, cognitive impairment, and perceived physical health, patients with SMI after midlife may be considered as a more complex population than those in early life. Long-term care of older SMI patients becomes a new challenge to the mental health system. Planning for medical care that meets the health needs of this growing population of older SMI adults is critical. More than 80% of older SMI patients are community dwellers. Nonetheless, information of community-dwelling patients with SMI on the cognition, medical burden, and social functioning is scant. Therefore, the symposium will focus on these issues of community-dwelling older patients with SMI.

Objectives

The understanding of the aging effects on brain, cardiovascular system, medical burden, and overall outcome of patients with SMI is an indispensable step in building a long-term care models across the lifespan. Although there is still a significant deficit in data, the present symposium will bring some answers, innovative questions, and novel perspectives. There are four presentations in this symposium. The first presentation will discuss the aging effect on physical and cognitive function of the community-dwelling patients with SMI (SCZ and BPD). The second one will present the outcomes after 15-year community living following long-term hospitalization and the trajectory of cognitive function in older SCZ patients. The third one will focus on the cardiovascular system of SCZ in the aging process. To our knowledge, this presentation will be the first time to report the data about cardiac sonography of the geriatric patients with SCZ. The last presentation will focus on the clinical factors and inflammatory markers associated with brain change (including cortical volume reduction and stroke) of older BPD patients. At the conclusion of these presentations, participants will (1) understand better the interaction of aging process and bio-psycho-social functioning in SCZ and BPD; and (2) increase awareness of improving the general health of older patients with SMI.

S55-1 The aging effect on cardiovascular system of adult patients with schizophrenia

Pao-Huan CHEN1, 2, Shang-Ying TSAI1, 2, Shuo-Ju CHIANG3, Cheng-Yi HSIAO3, Kuo-Hsuan CHUNG1, 2, Shou-Hung HUANG1, 2
1Department of Psychiatry, Taipei Medical University Hospital, Taiwan,
2Department of Psychiatry, School of Medicine, College of Medicine, Taipei Medical University, Taiwan,
3Division of Cardiology, Department of Internal Medicine, Taipei City Hospital, Taiwan,
4Division of Cardiology, Department of Internal Medicine, Taipei Medical University Hospital, Taiwan

S55-2 Outcomes of fifteen years of community living following long-term hospitalization and the trajectory of cognitive function in aged patients with schizophrenia

Hisashi KIDA
Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan

S55-3 Aging effects on the physical and cognitive functions, and subjective sense of well-being in elderly patients with severe mental illness living in the community

Hidehito NIIMURA1, 2
1Department of Neuropsychiatry, Keio University School of Medicine, Japan, 2Asaka Hospital, Koriyama, Fukushima, Japan

S55-4 The clinical factors and inflammatory markers associated with brain change of older patients with bipolar disorder

Shang-yung TSAI1, 2, Kuo-Hsuan CHUNG1, 2, Pao-Huan CHEN1, 2
1Department of Psychiatry, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan,
2Department of Psychiatry, Taipei Medical University Hospital, Taipei, Taiwan

Discussants: Roger HO (Department of Psychological Medicine, National University of Singapore, Singapore)
Jin NARUMOTO (Department of Psychiatry, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Japan)
Planning and conducting large pragmatic trials in psychiatry: for effective discovery, dissemination and implementation of evidence-based practices.

Organizer / Chair: Mitsuhiko YAMADA (Department of Neuropsychopharmacology, National Institute of Mental Health, National Center of Neurology and Psychiatry, Japan)
Co-chair: Hisae ONO (Department of Integral Psychological Sciences, School of Humanities, Kwansei Gakuin University, Japan)

There has been a dramatic increase in the evidence base to improve mental health. Clinical guidelines had been expected to translate such best evidence into best practice. However, the poor uptake of these evidence-based practices has led us to investigate factors related to their successful dissemination and implementation. For example, greater “consumer” involvement would be expected in setting priorities. The consumer includes not only patients, but also clinicians, payers, and others. When planning and conducting clinical trials in psychiatry, it is very important to take account of these factors. For better generalizability and feasibility, well-designed, larger, simpler and pragmatic trials would be expected. The purpose of this symposium is to discuss the needs and future challenges of large pragmatic trials in psychiatry for effective discovery, dissemination and implementation of evidence-based practices. The first speaker will discuss the first- and second-line treatment strategies for untreated unipolar major depressive episodes, based on the results obtained from the SUN☺D study (Kato et al., BMC Medicine, 16, 103, 2018). SUN☺D study is a pragmatic, multi-centre, assessor-blinded randomised controlled trial (n=2,011). The second speaker will introduce an outline of the multi-centre randomised controlled trial (n=496) included in the precision medicine project in UK. The primary objective of the trial is to determine whether using the treatment algorithm to identify a “personalised” antidepressant results in an increased proportion of patients who keep taking the allocated treatment at 8 weeks, in comparison to usual care. Complex interventions are widely used in the mental health service and the number of trials to examine the effect of complex interventions are increasing. Recently, a multi-centre, randomised controlled trial (ACTION-J study) was conducted to examine the effect of assertive case management for people with mental health problems who had attempted suicide and were admitted to hospital emergency departments (Kawanishi et al., Lancet Psychiatry, 1: 193-201, 2014). ACTION-J study is a multi-centre, randomised controlled trial (n=914). The third speaker will introduce the ongoing projects for dissemination of the assertive case management in Japan. We hope that this symposium will help the audience to understand the essential steps needed to plan and conduct large pragmatic trials in the field of psychiatry for effective discovery, dissemination and implementation of evidence-based practices.

S56-1 PRADA: Prescribing the Right Antidepressant for Depression in Adults
Andrea CIPRIANI
Department of Psychiatry, University of Oxford, UK

S56-2 The SUN(^_^)D study: a pragmatic, multi-centre, assessor-blinded randomised controlled trial examining first- and second-line treatments for patients with hitherto untreated major depression (n=2,011)
Toshiaki A. FURUKAWA
Department of Health Promotion and Human Behavior, Kyoto University Graduate School of Medicine / School of Public Health, Japan

S56-3 Dissemination and implementation of evidence-based interventions in psychiatry. Lessons learned from a large scale, multicentre, randomised controlled trial, ACTION-J study
Mitsuhiko YAMADA1, Yoshitaka KAWASHIMA1,2, Naohiro YONEMOTO1, Masatoshi INAGAKI1,2, Chiaki KAWANISHI4
1Department of Neuropsychopharmacology, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan, 2Department of Psycho-Social Studies, School of Arts and Letters, Meiji University, Tokyo, Japan, 3Department of Psychiatry, Faculty of Medicine, Shimane University, Izumo, Japan, 4Department of Neuropsychiatry, Sapporo Medical University Graduate School of Medicine, Sapporo, Japan

Discussants: Shih-Ku LIN (Taipei City Hospital and Psychiatric Center, School of Medicine, Taipei Medical University, Taiwan) Hiroyasu NARITA (Lundbeck Japan K.K.)
Parkinson’s disease (PD) is a syndrome rather than a disease. Indeed, based on the clustering analysis using artificial intelligence (AI), clinical phenotypes could be classified for three groups such as mild motor predominant, intermediate, and diffuse malignant forms. In addition, there are at least 23 loci or monogenic forms of familial PD. Thus, PD is highly heterogeneous. Based on the information from functions of causative genes, mitochondrial dysfunctions, lysosomal dysfunctions, neuroinflammation, and prion-like propagation have also been proposed as pathomechanisms. However, more information has not translated into greater understanding of disease complexity to satisfy diagnostic and therapeutic needs. Challenges include the need for wide-scale and long-term deployment of sensor technology, and the gap between the “big data” acquired with sensitive measurement technologies and their limited clinical application. Major opportunities could be realized if new technologies are developed as part of open-source and/or open-hardware platforms enabling multi-channel data capture, sensitive to the broad range of motor and non-motor problems that characterize PD, and adaptable into self-adjusting, individualized treatment delivery systems. We would like to propose the patient’s based managements for PD as precision medicine. This symposium is consisting of four speakers who will be talking about motor and non-motor symptoms for pharmacological treatments, respectively. In addition, this includes non-pharmacological treatment for PD such as DBS and precision medicine based on genetic studies.

S57-1 Optimal oral medications for patient's concerns on motor symptoms
Tetsuya MAEDA
Dev. of Neurology and Gerontology, Dep. of Internal Medicine, School of Medicine, Iwate Medical University, Japan

S57-2 Optimal oral medications for patient's concerns on non-motor symptoms
Hirohisa WATANABE
Department of Neurology, Fujita Health University, Japan

S57-3 Current non-oral strategies in advanced Parkinson's disease
Jongsam BAIK
Department of Neurology, Sanggye Paik Hospital, Inje University, Korea

S57-4 Precision Medicine for Parkinson's Disease: Lessons from Genetic Studies
Taku HATANO, Nobutaka HATTORI
Department of Neurology, Juntendo University School of Medicine, Japan

Discussant: Masato ASANUMA (Department of Medical Neurobiology, Okayama University Graduate School of Medicine, Dentistry and Pharmaceutical Sciences, Japan)
Recently, international collaborations of studies and research data consortiums have been attracting much attention, not only in genetic research, but also in neuroimaging field in recent years. There are psychosis consortiums such as ENIGMA-SZ, which have been successful to suggest biomarkers for the disorder. However, as the chronic patients are exposed to medications, reduced social activity and other secondary effects of the disorder for a long time, the consortiums of chronic patients have a critical limitation of not being able to attribute the findings solely to the effect of the disorder.

Therefore, the consortium for the first episode psychosis patients (FEP) is needed to resolve this issue. Asian Consortium on MRI studies in Psychosis (ACMP) is a FEP MRI consortium among the Asian countries. ACMP project plans to collect existing FEP MRI data along with the demographic and clinical information from each participating site to investigate the early changes attributed to the disorder not to the secondary effects such as medication. Longitudinal data collection of FEP is also planned for the investigation of changes along the disorder progression.

In this symposium, each presenter would briefly go through their own hypotheses, based on their previous results and present a preliminary data from ACMP highlighting the strength of ACMP in achieving a common goal of further investigating the core changes of psychosis.

S58-1 A neuroimaging mega study with clinical dataset shows a new insight into brain pathology of schizophrenia: The concept and framework of the Asian Consortium on MRI studies in Psychosis (ACMP)
Shinsuke KOIKE\(^1,2,3,4\)
\(^1\)Center for Evolutionary Cognitive Sciences, The University of Tokyo, Tokyo, Japan,
\(^2\)University of Tokyo Institute for Diversity & Adaptation of Human Mind (UTIDAHM), Tokyo, Japan,
\(^3\)The International Research Center for Neurointelligence (WPI-IRCN), Institutes for Advanced Study (UTIAS), The University of Tokyo, Tokyo, Japan,
\(^4\)University of Tokyo Center for Integrative Science of Human Behavior (CiSHuB), Tokyo, Japan

S58-2 Functional Brain Networks in Never-Treated and Treated Long-Term Ill Schizophrenia Patients
Su LUI\(^1\), Li YAO\(^1\), Jieke LIU\(^2\), Fei LI\(^1\), Wei LIAO\(^1\), Wei DENG\(^1\), John A SWEENEY\(^3\), Qiyong GONG\(^1\)
\(^1\)Huaxi MR Research Center (HMRC), Department of Radiology, West China Hospital of Sichuan University, China,
\(^2\)Department of Radiology, Sichuan Cancer Hospital & Institute, Sichuan Cancer Center, School of Medicine, University of Electronic Science and Technology of China, China,
\(^3\)Department of Psychiatry, State Key Laboratory of Biotherapy, West China Hospital of Sichuan University, China,
\(^4\)Center for Information in BioMedicine, Key Laboratory for Neuroinformatics of Ministry of Education, School of Life Science and Technology, University of Electronic Science and Technology of China, China,
\(^5\)Department of Psychiatry and Behavioral Neuroscience, University of Cincinnati, USA

S58-3 Brain functional connectome reveals heterogeneity in persons at-risk for psychosis
Juan Helen ZHOU\(^1\), Jimmy LEE\(^2\)
\(^1\)Duke-National University of Singapore Medical School, Singapore, \(^2\)Institute of Mental Health, Singapore

S58-4 Thalamo-cortical Network Investigations in Psychosis
Kang Ik Kevin CHO\(^1\), Yoo Bin KWAK\(^1\), Wu Jeong HWANG\(^1\), Jun Soo KWON\(^1,2\)
\(^1\)Department of Brain and Cognitive Sciences, College of Natural Sciences, Seoul National University, Seoul, Korea,
\(^2\)Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea.

Discussants: Yoshiya MORIGUCHI (Medical Affairs, Development Center, Lundbeck Japan)
Toshiaki KIKUCHI (Department of Neuropsychiatry, Keio University School of Medicine, Japan)
Clinical Experience and Researches of Adult ADHD in Korea

Organizer / Chair: Duk-In JON (Department of Psychiatry, College of Medicine, Hallym University, Korea)

For many years, attention deficit hyperactivity disorder (ADHD) has been thought to be a mental disorder that diagnosed in child or adolescent period. ADHD in childhood can persist into adulthood in at least 30 percent of patients and some researches present a possibility of ‘late onset or adult onset ADHD’. According to most recent data from WHO, the global prevalence rate of ADHD in adult is about 3~4%. The rate of comorbidity in adult ADHD is estimated to be up to 85%, such comorbid illnesses include bipolar disorder, substance mood disorder, anxiety disorder etc. These mean that ADHD could be a lifelong disorder. These means that not only the symptoms and impairments of ADHD could affect the adult population, but functional impairments could be worse than the younger population. So proper diagnosis and treatment is very important, especially in adults, and can improve their daily functioning. As a result, interests in adult ADHD has rapidly increased and updated clinical practice has emerged across the world. Despite this progress, most countries in asia have little data from basic researches, including epidemiologic studies, clinical research etc. Most of all researches and data have been coming from a few eastern developed countries and proper diagnostic, and treatment services are often restricted or unavailable in many other regions of the world, including most asian countries. We don't know how many asian people suffer from adult ADHD. We don't know which medications or treatment could be more effective in asian people. We just know that 'we don't know'.

Clinical and social interests in adult ADHD have been growing rapidly in Korea since last 2 years. Academic and clinical meeteings, researches have been continuing by Korean College of Neuropsychopharmacology(KCNP) and Korean Society for Affective Disorder(KSAD). In this symposium, we will present a status of adult ADHD and related recent clinical researches in Korea. We expect that clinical or academical interests of asian psychiatrists will grow with our session. We also hope that our presentation could be a trigger for expansion of adult ADHD in each asian countries.

S59-1 Current status of Adult ADHD in Korea
Jeong Seok SEO
Department of Psychiatry, Konkuk University, Korea

S59-2 Epidemiologic data of adult ADHD in Korea: Using Android Application & symptom scale
Seung-Ho JANG1, Won-Myong BAKH2, Sang-Yeol LEE1, Jung-Wan HONG1
1Department of Psychiatry, School of Medicine, Wonkwang University, Iksan, Korea,
2Department of Psychiatry, Yeouido St. Mary's Hospital, College of Medicine, The Catholic University of Korea, Seoul, Korea

S59-3 Pharmacological treatment of adult ADHD- as the focus on south Korea
Se-Hoon SHIM1, Won-Myong BAKH2
1Department of Psychiatry, Soochunhyang University Hospital, Korea,
2Department of Psychiatry, College of Medicine, The Catholic University of Korea, Seoul, Korea

Discussant: Hyung-Mo SUNG (Department of Psychiatry, CHA University, Korea)
Psychiatric disorders cause the significant burden to the individual and worldwide, and have been increasing on current human society. Psychiatric disorders such as drug addiction and stress-related illnesses including major depressive disorder, post-traumatic stress disorder, and anxiety disorder are complex multifactorial illnesses involving chronic alternations in the neuronal circuit that contribute to their pathophysiology. The diverse array of behavioral symptoms in the individuals make it difficult to decrease morbidity with efficacy therapies and identify any specific genes linking to the underlying causal of these diseases. While genetic factors play crucial roles in the etiology of mental illnesses, identical twin studies demonstrated the relatively high rates of discordance indicate the importance of additional mechanisms. Environmental factors such as stress or abuse of drugs are known to play significant roles in the development of psychiatric disorders. Repeated exposure with stressors or drugs extended beyond the significant period of times and traumatic event induce persistent changes in gene expression and neuronal circuit function that lead to long-lasting maladaptive behaviors. Increasing evidence indicates that dysregulation of epigenetic mechanisms and its crucial contribution in the pathophysiology in the psychiatric disorders. In this symposium, we will discuss the epigenetic mechanisms underlying the development of psychiatric disorders.

Epigenetic mechanisms control gene transcription without alternations of the DNA sequence itself, rather change the chromatin state. In the nucleus, DNA is packed into chromatin which is comprised of DNA and histones. The N-terminal histone tails can undergo many types of post-translational modifications including acetylation which often observed in the genomic region of the active state for transcription. The acetylation is controlled by two classes of enzymes, histone acetyltransferases (HATs) and histone deacetylases (HDACs). HATs transfer an acetyl group to a histone lysine residue, whereas HDACs remove. Acetylation of histone tail relaxes chromatin structure and produces space for the transcriptional machinery resulting in transcriptional active states. HDACs are classified into subgroups: Class I HDAC (HDAC1, 2, 3, and 8) consists of a central deacetylase domain and are mostly localized within the cell nucleus. They have well-described histone deacetylase enzymatic activity and are found in large gene repressor complexes. Class IIa HDACs (HDAC4, 5, 7, and 9) can be shuttled between cytoplasm and the nucleus. Although their enzymatic activity is unclear, the neuronal activity-dependent subcellular redistribution of class IIa HDACs regulates their interaction with transcription factors and recruits repressor complexes. The crucial roles of epigenetics have been suggested from clinical genetic and postmortem brain studies and preclinical pharmacological studies, further understanding of epigenetics is important to improve the efficacy of therapy and to decrease mortality of psychiatric disorders.

In this symposium, Dr. Taniguchi will discuss the regulatory mechanisms of class IIa HDACs in response to exposure to drugs, cocaine and heroin, and its function in the drug addiction-related behaviors. Dr. Uchida will discuss the epigenetic mechanisms of class I HDACs underlying vulnerability to stress-related psychiatric disorders. Dr. Maddox will discuss the role of class IIa HDACs, HDAC4, in the contribution of development of PTSD in women.
Luncheon Seminar
Luncheon Seminar 1-1  October 11 (Fri), 12:30 - 14:00 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)

Chair: Stephen STAHL (University of California San Diego, California, USA)

**LS1-1-1 Understanding Depression Treatment: from Mechanism to Clinical Profile**

Stephen STAHL  
University of California San Diego, California, USA

**LS1-1-2 Do Patients Receive the Treatment They Really Need?**

Bernhard T. BAUNE  
University of Münster, Münster, Germany

**LS1-1-3 Back to Normal?**

Roger MCINTYRE  
University of Toronto, Toronto, Ontario, Canada

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Luncheon Seminar 1-4  October 11 (Fri), 12:30 - 13:30 / Room 4 (Fukuoka International Congress Center, 4F, 409)

Chair: Norio FURUKORI (Department of Psychiatry, Dokkyo Medical University, Japan)

**LS1-4-1 Brain dysfunction in liver cirrhosis with carnitine deficiency, which evaluated by near-infrared spectroscopy**

Hiroyuki NAKANISHI  
Department of gastroenterology and hepatology, Musashino red cross hospital, Japan

**LS1-4-2 Role of carnitine in psychiatric disorders**

Akifumi NAKAMURA\(^1,2\)  
\(^1\)Akari Clinic, Japan, \(^2\)Department of Neuropsychiatry, Graduate School of Medicine, University of the Ryukyus, Japan

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Luncheon Seminar 1-6  October 11 (Fri), 12:30 - 13:30 / Room 6 (Fukuoka International Congress Center, 4F, 401+402)

Chair: Yutaka WATANABE (Department of Psychiatry, Amekudai Hospital, Japan)

**LS1-6 Epilepsy in the elderly**

Aihide YOSHINO  
Department of Psychiatry, National Defense Medical College, Japan

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Luncheon Seminar 1-13  October 11 (Fri), 12:30 - 13:30 / Room 13 (Fukuoka International Congress Center, 5F, 501)

Chair: Kazuyuki NAKAGOME (National Center of Neurology and Psychiatry, Japan)

**LS1-13 Cognitive Dysfunction in Bipolar Disorder**

Allan H. YOUNG  
King’s College London, London, UK
Luncheon Seminar 1-14  
October 11 (Fri), 12:30 - 13:30 / Room 14 (Fukuoka Sunpalace Hotel and Hall, 2F, Palace Room A)  
Sponsor: Mitsubishi Tanabe Pharma Corporation  
*Japanese Session

Chair: Hiroyuki UCHIDA (Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan)

LS1-14 The significance of focusing on the diagnosis and treatment of tardive dyskinesia
Takashi TSUBOI
Department of Neuropsychiatry, Kyorin University School of Medicine, Japan

Luncheon Seminar 1-15  
October 11 (Fri), 12:30 - 13:30 / Room 15 (Fukuoka Sunpalace Hotel and Hall, 2F, Palace Room B)  
Sponsor: Pfizer Japan Inc. / Sumitomo Dainippon Pharma Co., Ltd.  
*Japanese Session

Chair: Chiaki KAWANISHI (Department of Neuropsychiatry, Sapporo Medical University Graduate School of Medicine, Japan)

LS1-15 Considering withdrawal of Depression Treatment
Nakao IWATA
Department of Psychiatry, Fujita Health University School of Medicine, Japan

Luncheon Seminar 2-1  
October 12 (Sat), 12:30 - 13:30 / Room 1 (Fukuoka International Congress Center, 3F, Main Hall)  
Sponsor: Sumitomo Dainippon Pharma Co., Ltd.  
*Japanese Session

Chair: Teruhiko HIGUCHI (Japan Depression Center, Japan)

LS2-1 Possibility of third route of administration "Transdermal Patch" in pharmacological therapy of schizophrenia
Jun ISHIGOOKA
Institute of CNS Pharmacology, Japan

Luncheon Seminar 2-2  
October 12 (Sat), 12:30 - 13:30 / Room 2 (Fukuoka International Congress Center, 4F, 411+412)  
Sponsor: Otsuka Pharmaceutical Co., Ltd.

Chair: Norio OZAKI (Department of Psychiatry, Nagoya University Graduate School of Medicine, Japan)

LS2-2 Recent developments and future perspectives of long-acting injectable antipsychotics in schizophrenia
Andrea FAGIOLINI
Department of Mental Health and Division of Psychiatry, University of Siena School of Medicine, Italy

Luncheon Seminar 2-3  
October 12 (Sat), 12:30 - 13:30 / Room 3 (Fukuoka International Congress Center, 4F, 413+414)  
Sponsor: Eli Lilly Japan K.K. / SHIONOGI & CO., LTD.  
*Japanese Session

Chair: Masaru MIMURA (Department of Neuropsychiatry, Keio University School of Medicine, Japan)

LS2-3 Aiming for optimization of depression treatment, how to perceive the heterogeneity of depression and how to treat it
Tempei OTSUBO
Department of Psychiatry, Tokyo Women's Medical University Medical Center East, Japan
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<td>LS2-5</td>
<td>Neuromodulation for depression: rTMS</td>
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<td>Shin suicide KITO</td>
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<td>LS2-6</td>
<td>New era of treatment of alcoholism: focusing on pharmacology of acamprosate</td>
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<td>Naoyuki HIRONAKA</td>
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<td>Chair: Tsuyoshi KON DO (Department of Neuropsychiatry, Graduate School of Medicine, University of the Ryukyus, Japan)</td>
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<tr>
<td>LS2-11</td>
<td>Pharmacotherapy towards goals in mood disorders based not only on evidence but also on the context of the case</td>
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<tr>
<td>Masaki KATO</td>
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<td>Department of Neuropsychiatry, Kansai Medical University, Japan</td>
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<tr>
<th>Luncheon Seminar 2-12</th>
<th>October 12 (Sat), 12:30 - 13:30 / Room 12 (Fukuoka International Congress Center, 5F, 503)</th>
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<td>Sponsor: Philip Morris Japan Ltd.</td>
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<td>*Simultaneous interpretation available</td>
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<tr>
<td>Chair: Soichiro IDE (Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Japan)</td>
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<td>LS2-12</td>
<td>The role of Heat-Not-Burn products in Tobacco Harm Reduction: approach based on the example of IQOS® in Japan</td>
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<td>Patrick PICAVET, Serge MAEDER, Gizelle BAKER, Annie HEREMANS, Manuel PEITSCH</td>
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<td>PMI R&amp;D, Philip Morris Products S.A., Neuchâtel, Switzerland</td>
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<th>Luncheon Seminar 2-13</th>
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<td>Chair: Masatoshi TAKEDA (Osaka Kawasaki Rehabilitation University, Japan)</td>
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<tr>
<td>LS2-13</td>
<td>Alzheimer’s disease: The Approach for disease modification</td>
</tr>
<tr>
<td>Kenjiro ONO</td>
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<tr>
<td>Department of Neurology, Showa University School of Medicine, Tokyo, Japan</td>
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Luncheon Seminar 2-15  
October 12 (Sat), 12:30 - 13:30 / Room 15 (Fukuoka Sunpalace Hotel and Hall, 2F, Palace Room B)  

Sponsor: H. Lundbeck A/S

Chair: Nakao IWATA (Department of Psychiatry, Fujita Health University School of Medicine, Japan)

LS2-15-1 Opportunities in the treatment and prevention of positive symptoms: improving outcomes  
John M. KANE1, 2, 3
1Behavioral Health Services, Northwell Health, New York, USA,  
2The Donald and Barbara Zucker School of Medicine, Hofstra/Northwell, New York, USA,  
3The Zucker Hillside Hospital, Department of Psychiatry, New York, USA

LS2-15-2 Challenges and progress in the treatment of negative, cognitive, and other symptom domains  
Christoph U. CORRELL1, 2, 3
1Department of Psychiatry and Molecular Medicine, Hofstra Northwell School of Medicine, New York, USA,  
2Center for Psychiatric Neuroscience, Feinstein Institute for Medical Research, New York, USA,  
3Recognition and Prevention (RAP) Program, The Zucker Hillside Hospital, Department of Psychiatry, New York, USA

AsCNP Lunch Session  
October 13 (Sun), 12:30 - 13:30 / Room 1 (Fukuoka International Congress center, 3F, Main Hall)

Chairs: Chan Hyung KIM (Vice-president, AsCNP / Department of Psychiatry, Yonsei University College of Medicine, Korea)  
Kazutaka IKEDA (Chair, AsCNP 2019/ President, AsCNP / Addictive Substance Project, Department of Psychiatry and Behavioral Sciences, Japan)

ALS-1 Introduction of AsCNP  
Atsumi NITTA  

ALS-2 AsCNP 2021 Singapore Congress  
Chay Hoon TAN  
President-elect, AsCNP / National University of Singapore, Singapore

ALS-3 Award Committee  
Shih-Ku LIN  
Vice-president, AsCNP / Taipei City Hospital and Psychiatric Center, Taiwan

ALS-4 Education Committee  
Andi J. TANRA  
Past-president, AsCNP / University of Hasanuddin, Indonesia

ALS-5 AFPA & Asia alliance  
Winston W. SHEN  
Adviser, AsCNP / Department of Psychiatry, Taipei Medical University, Taiwan  
Naotaka SHINFUKU  
Kobe University, Japan

ALS-6 Related Academic Societies  
Kazutaka IKEDA  
Chair, AsCNP 2019/ President, AsCNP / Addictive Substance Project, Department of Psychiatry and Behavioral Sciences, Japan
**Luncheon Seminar 3-2**

**October 13 (Sun), 12:30 - 13:30 / Room 2 (Fukuoka International Congress Center, 4F, 411+412)**

**Chair:** Toshihiko MATSUMOTO (Department of Drug Dependence Research, National Institute of Mental Health, National Center of Neurology and Psychiatry, Japan)

**Luncheon Seminar 3-2**

Truth about antidepressants for major depression, as revealed by >500 randomized controlled trials: some antidepressants are more efficacious than others, placebo response rates have remained constant for 25 years, and SSRIs should be prescribed towards the lower end of their licensed dose range

Toshiaki A. Furukawa

Department of Health Promotion and Human Behavior, Kyoto University Graduate School of Medicine / School of public Health, Japan

**Sponsor:** Meiji Seika Pharma Co., Ltd.

*Japanese Session*

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**Luncheon Seminar 3-6**

**October 13 (Sun), 12:30 - 13:30 / Room 6 (Fukuoka International Congress Center, 4F, 401+402)**

**Chair:** Shin NAKAGAWA (Division of Neuropsychiatry, Department of Neuroscience, Yamaguchi University Graduate School of Medicine, Japan)

**Luncheon Seminar 3-6**

Co-occurrence of ADHD and Bipolar Disorder

Takeshi TERAQ

Department of Neuropsychiatry, Oita University Faculty of Medicine, Japan

**Sponsors:** SHIONOGI & CO., LTD. / Takeda Pharmaceutical Company Limited

*Japanese Session*

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**Luncheon Seminar 3-11**

**October 13 (Sun), 12:30 - 13:30 / Room 11 (Fukuoka International Congress Center, 5F, 502)**

**Chair:** Tempei OTSUBO (Department of Psychiatry, Tokyo Women’s Medical University Medical Center East, Japan)

**Luncheon Seminar 3-11**

The Link between anxiety disorders and depression -focusing on social anxiety disorder-

Satoshi ASAKURA1, 2

1Health Care Center, Hokkaido University, Japan, 2Graduate School of Medicine, Department of Psychiatry, Hokkaido University, Japan

**Sponsors:** MOCHIDA PHARMACEUTICAL CO., LTD. / Mitsubishi Tanabe Pharma Corporation / Yoshitomiyakuhin Corporation

*Japanese Session*

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**Luncheon Seminar 3-14**

**October 13 (Sun), 12:30 - 13:30 / Room 14 (Fukuoka Sunpalace Hotel and Hall, 2F, Palace Room A)**

**Chair:** Norio OZAKI (Department of Psychiatry and Department of Child and Adolescent Psychiatry Nagoya University School of Medicine, Japan)

**Luncheon Seminar 3-14**

Current topics on the diagnosis and treatment of sleep disorders

Yuichi INOUE1, 2

1Department of Somnology, Tokyo Medical University, Japan, 2Yoyogi Sleep Disorder Center, Japan

**Sponsor:** Astellas Pharma Inc.

*Japanese Session*

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**Luncheon Seminar 3-15**

**October 13 (Sun), 12:30 - 13:30 / Room 15 (Fukuoka Sunpalace Hotel and Hall, 2F, Palace Room B)**

**Chair:** Takeshi INOUE (Department of Psychiatry, Tokyo Medical University, Japan)

**Luncheon Seminar 3-15**

Addressing unmet needs in the treatment of depression

Koichiro WATANABE

Department of Neuropsychiatry, Kyorin University School of Medicine, Japan

**Sponsors:** Japan Medical Office, Takeda Pharmaceutical Company Limited. / Medical Affairs, Lundbeck Japan K.K.

*Japanese Session*
Sponsored Symposium
Towards precision psychiatry based on new modalities

Chair: Hiroyuki UCHIDA (Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan)

SS-1-1  Glutamatergic dysfunction in treatment-resistant schizophrenia: 3T proton MRS studies
Shinichiro NAKAJIMA
Department of Neuropsychiatry, School of Medicine, Keio University, Japan

SS-1-2  Synaptic Plasticity: from bench to bedside
Takuya TAKAHASHI
Department of Physiology, School of Medicine, Yokohama City University, Yokohama, Japan
Sponsored Symposium 2

October 11 (Fri), 16:30 - 18:10 / Room 2 (Fukuoka International Congress Center, 4F, 411+412)

Sponsor: Janssen Pharmaceutical K.K.

*Japanese Session

Treatment with long term prognosis in schizophrenia

Chairs: Nakao IWATA (Department of Psychiatry, Fujita Health University School of Medicine, Japan)
Koichiro WATANABE (Department of Neuropsychiatry, Kyorin University School of Medicine, Japan)

SS-2-1 Schizophrenia pharmacotherapy with a focus on life prognosis
Fuminari MISAWA
Yamanashi Prefectual KITA Hospital, Japan

SS-2-2 Treatment of schizophrenia focusing on cognitive impairment
Naoki HASHIMOTO
Department of Psychiatry, Hokkaido University Graduate School of Medicine, Japan

SS-2-3 Longitudinal neuroimaging findings of structural brain abnormalities in schizophrenia
Hidehiko TAKAHASHI
Tokyo Medical and Dental University, Japan
Diagnosis of Adult AD/HD - Overdiagnosis and Underdiagnosis -

Chair: Takuya SAITO (Department of child and adolescent psychiatry, Graduate School of Medicine, Hokkaido University, Japan)

SS-3-1 Diagnosis of adult ADHD - overdiagnosis and underdiagnosis
Kazuya ONO
Department of Neuropsychiatry, St. Marianna University School of Medicine, Japan

SS-3-2 Diagnostic tool of Adult ADHD
Takuya SAITO
Hokkaido University Graduate School of Medicine Department of child and adolescent psychiatry, Japan

SS-3-3 Understanding ADHD in adulthood: focus on diagnosis
Josep Antoni RAMOS-QUIROGA1, 2
1Vall d’Hebron University Hospital, Spain, 2Universitat Autonoma de Barcelona, Spain
New treatment, including harm reduction program, for the patients with alcohol dependence

Chair: Toshikazu SAITO (Miki Mental Clinic, Japan / Department of Neuropsychiatry, Sapporo Medical University, Japan)

The “Basic Act on Measures against Alcohol-Related Health Harm” was enacted in December 2013. It called out to enhance the training for medical staffs and the early diagnosis and treatment for patients with alcohol related problems to resolve the big treatment gap. In these situation, The Japanese Society of Alcohol-Related Problems and The Japanese Medical Society of Alcohol and Addiction Studies published New Diagnosis and Treatment Guidelines for Alcohol and Drug Use Disorders. This guideline including the harm reduction concept as a treatment goal for alcohol dependence as well substance use disorder. Big alteration has been seen in outpatients treatment by accepting the drinking reduction goal in Japan. Additionally, new pharmacotherapy for alcohol dependence aiming to reduce in alcohol consumption was launched in Japan. These changes would be expected to play supportive role for continuing treatment for patients with alcohol dependence both with and/or without of medication.

SS-4-1 The new legislation on alcohol-related health harm and the new clinical guidelines for substance use disorders in Japan

Susumu HIGUCHI
National Hospital Organization Kurihama Medical and Addiction Center, Japan

SS-4-2 Alteration in Diagnosis, Treatment and Treatment Goal for Alcohol Dependence and Alcohol Use Disorders

Toshikazu SAITO
Miki Mental Clinic, Japan / Department of Neuropsychiatry, Sapporo Medical University, Japan

SS-4-3 The update of the pharmacological effects of nalmefene and the psychosocial support program: based on the outcomes of clinical trial of nalmefene in Japan (phase III trial)

Hisatsugu MIYATA
Department of Psychiatry, Jikei University School of Medicine, Japan
Motivation, Tabacco, Nicotine

Chairs: Edward F. DOMINO (Department of Pharmacology, University of Michigan, USA)
Hisatsugu MIYATA (Department of Psychiatry, Jikei University School of Medicine, Japan)

New types of tobacco products, which are said to be potentially less harmful than conventional cigarettes, e.g. heat-not-burn tobacco products and e-cigarettes, are getting popular. Toxicological evaluation of the use of these products are being vigorously examined, but research on “addictive” aspects of these products are less. This symposium would provide a good opportunity to examine various aspects of the new products, including their subjective effects.

SS-5-1 Motivation Measures of Tobacco Smoking vs E-Cigarettes (Nicotine Vaping)
Edward F. DOMINO
Department of Pharmacology, University of Michigan, USA

SS-5-2 HEAT-NOT-BURN PRODUCTS : WHAT DO WE KNOW TODAY? A RISK/BENEFIT ANALYSIS
Manuel PEITSCH
PMI R&D, Philip Morris Products S.A., Switzerland

SS-5-3 Measuring the potential reduced risk character of tobacco heating and vaping products
Sarah COONEY, Christopher PROCTOR, George HARDIE, Marianna GACA, Krishna PRASAD, Allen GRIFFITHS
Scientific R&D, British American Tobacco (Investments) Ltd, Southampton, UK

SS-5-4 Vapor-infused tobacco, a low-temperature intermediate between directly-heated tobacco and e-electronic cigarettes?
Ian W. JONES
JT International SA, Switzerland

Discussant: Kengo YOKOMITSU (College of Comprehensive Psychology, Ritsumeikan University, Japan)
Sponsored Symposium 6

October 12 (Sat), 10:30 - 12:10 / Room 6 (Fukuoka International Congress Center, 4F, 401+402)

Sponsor: Otsuka Pharmaceutical Co., Ltd.
*Japanese Session

The New Development in The Treatment for Patients with Alcohol Dependence
-Clinical Practices of The Alcohol Reduction Therapy-

Chair: Hisatsugu MIYATA (Department of Psychiatry, Jikei University School of Medicine, Japan)

SS-6-1 Clinical practices of drinking-reduction approach (DRA) for patients with alcohol dependence at the psychiatric clinic in the metropolitan area
    Jo KURAMOCHI
    Akihabara Sakura Tree Clinic, Japan

SS-6-2 Individual Psychology based Pharmacotherapy for Patients with Alcohol Dependence in the General Psychiatric Clinic
    Tadashi TANAKA
    Tadashi Mental Clinic, Japan

SS-6-3 The Harm reduction program for patients with alcohol dependence at specialized hospital, Tohokukai Mental Hospital
    Fukiko OKUDAIRA, Toshihiro SUZUKI, Kensuke SAITO, Toru ISHIKAWA
    Tohokukai Mental Hospital, Japan
Biological Aspect in Autism Spectrum Disorder

Chair: Takuya SAIJO (Department of Child and Adolescent Psychiatry, Graduate School of Medicine, Hokkaido University, Japan)

SS-7-1 Serum fatty acid-binding protein 4 as an early diagnostic biomarker for autism spectrum disorder
Motoko MAEKAWA
RIKEN Center for Brain Science, Japan

SS-7-2 Genetic determinants of epigenetic modifications contributing to the ASD pathogenesis
Shabeesh BALAN
RIKEN Center for Brain Science, Japan

SS-7-3 Perspective treatment targets in Autism Spectrum Disorder
Kevin SANDERS
F.Hoffmann-La Roche Ltd, Switzerland
New Developments in the Treatment of Psychotic Spectrum Disorders

Chair: Nakao IWATA (Department of Psychiatry, Fujita Health University School of Medicine, Japan)

**SS-8-1** Beyond dopamine (DA) D₂ antagonism: Targeting other neurotransmitter receptors and neurotrophins to treat the triad of pathology of the schizophrenia phenotype

Herbert Y. MELTZER
Department of Psychiatry, Northwestern University Feinberg School of Medicine, USA

**SS-8-2** The Role of Emerging Technology in Mental Health Care

John M. KANE
The Zucker Hillside Hospital, New York, USA
Sponsored Symposium 9

October 13 (Sun), 8:40 - 10:20 / Room 13 (Fukuoka International Congress Center, 5F, 501)

Organizer / Chair: Naoyuki HIRONAKA (Department of Pharmacology, LSI Medience, Corp., Tokyo, Japan)
Chair: Hisatsugu MIYATA (Department of Psychiatry, Jikei University School of Medicine, Japan)

SS-9-1 Psychophysiological effects of cigarettes and heated tobacco products
Midori MOTOI, Shigeki WATANUKI
Department of Human Science, Faculty of Design, Kyushu University, Fukuoka, Japan

SS-9-2 Research on cognitive and motor function of nicotine using a driving simulator
Noriko NISHIKAWA
Department of Neurology, National Center of Neurology and Psychiatry, Tokyo, Japan

SS-9-3 Improvement of nicotinic acetylcholine receptor stimulation in refractory depressive-like model mice
Shigeki MORIGUCHI, Kohji FUKUNAGA
Dept. of Pharmacol., Grad. Sch. of Pharmaceut. Sci., Tohoku Univ., Sendai, Japan

SS-9-4 Association of intestinal microbiota with the reduced prevalence of Parkinson's disease in smokers
Kinji OHNO
Neurogenetics, Nagoya University, Graduate School of Medicine, Nagoya, Japan

Frontier of Nicotine Research: In search of novel psychopharmacological effects

Sponsor: Japan Tobacco Inc.
*Japanese Session
Proper diagnosis of ADHD

Chairs: Takuya SAITO (Department of Child and Adolescent Psychiatry, Graduate School of Medicine, Hokkaido University, Japan)
Tsuyoshi KONDO (Department of Neuropsychiatry, Graduate School of Medicine, University of the Ryukyus, Japan)

SS-10-1 Proper Diagnosis of Childhood ADHD
Kazuya ONO
St.Marianna University School of Medicine, Japan

SS-10-2 Consider the possibility of "distractibility or impulsivity due to general medical condition: when you diagnose patients as ADHD"
Norio OZAKI
Department of Psychiatry and Department of Child and Adolescent Psychiatry Nagoya University School of Medicine, Japan

SS-10-3 The continuity of ADHD from childhood to adulthood
Hirotaka KOSAKA
Department of Neuropsychiatry, University of Fukui, Japan
The present and the future of Shikohin (pleasure products) science: Clinical contribution of harm reduction

Organizer: Hisatsugu MIYATA (Department of Psychiatry, Jikei University School of Medicine, Tokyo, Japan)
Chairs: Naoyuki HIRONAKA (Department of Pharmacology, LSI Medience, Corp., Tokyo, Japan / Department of Psychology, Teikyo University, Tokyo, Japan)
Kohji TAKADA (Department of Psychology, Teikyo University, Tokyo, Japan)

SS-11-1 Tobacco harm reduction
Naoyuki HIRONAKA1, 2
1Department of Pharmacology, LSI Medience, Corp., Tokyo, Japan, 2Department of Psychology, Teikyo University, Tokyo, Japan

SS-11-2 Mental benefits of the aroma of liquor
Hirofumi KODA
Suntory Global Innovation Center Ltd, Kyoto, Japan

SS-11-3 Could the low-funing pachinko reduce gambling-related harm?
Kengo YOKOMITSU
College of Comprehensive Psychology, Ritsumeikan University, Osaka, Japan

SS-11-4 Harm reduction related to tempting sugary-foods consumption: Are artificial sweeteners a beneficial substitute for sugar?
Kenjiro AOYAMA
Department of Psychology, Doshisha University, Kyoto, Japan
Award Lecture
Lundbeck Science Award Lecture

October 13 (Sun) 8:40 - 9:40 / Room 11 (Fukuoka International Congress Center, 5F, 502)

Chairs: Shih-Ku LIN (Taipei City Hospital and Psychiatric Center, Taiwan)
        Kiyofumi YAMADA (Nagoya University Graduate School of Medicine, Japan)

LSAL-1 From Omics Data to an Understandable Biology of Psychiatric Disorders: The Importance of In Silico Databases

Brian DEAN1,2,3

1Molecular Psychiatry Laboratory, Florey Institute for Neuroscience and Mental Health, Parkville, Victoria, Australia,
2CRC for Mental Health, Carlton, Victoria, Australia,
3Centre for Mental Health, Swinburne University, Hawthorne, Victoria, Australia

LSAL-2 Road to living EBM

Toshi A. FURUKAWA

Department of Health Promotion and Human Behavior, Kyoto University Graduate School of Medicine / School of Public Health, Japan
AL1-1 Roles of orexin neurons in motivated behaviors in rats

Hiroyuki MIZOGUCHI1, Ayumu INUTSUKA2, Kentaro KATAHIRA3, Kiyofumi YAMADA4, Akihiro YAMANAKA5
2Dept. Physiol., Jichi Med. Univ., Shimotsuke, Japan, 3Dept Physiol, Grad Sch Inform, Nagoya Univ., Nagoya, Japan,

AL1-2 Behavioral sensitization and relapse in mu-, delta- and kappa-opioid receptor knockout mice

Yuki MORIYA1, Scott F. HALL2, Yoshiyuki KASAHARA3, Yoko HAGINO4, Brigitte L. KIEFFER5, George R. UHL6, Ichiro SORA7, Kazutaka IKEDA1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of Pharmacology and Experimental Therapeutics, University of Toledo, USA,
3Advanced Interdisciplinary Biomedical Engineering, Tohoku University School of Medicine, Sendai, Miyagi, Japan,
4Dep. of Psychiatry, Douglas Mental Health Research Institute, McGill University, Montreal, Canada,
5Research Service, New Mexico VA Healthcare System, Albuquerque, NM, USA,
6Department of Psychiatry, Kobe University, Graduate School of Medicine, Kobe, Japan

AL1-3 Porphyromonas gingivalis infected Leptomeningeal Cells Reduce Synapses Proteins in Primary Cultured Neurons

Wanyi HUANG1, Junjun NI1, Fan ZENG1, Muzhou JIANG1, Yebo GU3, Zhou WU1, 2
1Department of Aging Science and Pharmacology, Faculty of Dental Sciences, Kyushu University, Fukuoka, Japan,
2OBT Research Center, Faculty of Dental Sciences, Kyushu University,
3Section of Orthodontics and Dentofacial Orthopedics, Division of Oral Health, Growth and Development, Faculty of Dental Science, Kyushu University, Fukuoka, Japan

AL1-4 Porphyromonas gingivalis LPS induces Microglia-dependent Tau Hyperphosphorylation in Cultured Neurons

Zhou Mu JIANG1, Jun Jun NI1, Bo Ye GU3, Yi Wan HUANG1, Zhou WU1, 2
1Department of Aging Science and Pharmacology, Faculty of Dental Science, Kyushu University, Fukuoka, Japan,
2OBT Research Center, Faculty of Dental Science, Kyushu University,
3Section of Orthodontics and Dentofacial Orthopedics, Division of Oral Health, Growth and Development, Faculty of Dental Science, Kyushu University, Fukuoka, Japan

AL1-5 Melatonin receptor agonist Ramelteon attenuates ischemic brain injury

Xiaoli WU, Xiangnan ZHANG, Zhong CHEN
College of Pharmaceutical Sciences, Zhejiang University

AL1-6 The involvement of OPRM1 A118G polymorphism in fentanyl-induced symptoms and postoperative nausea and vomiting in Japanese patients underwent laparoscopic colon resection

Midori SODA1, Yoko SUGIYAMA2, Saeri GOTO3, Yuki IMAMURA1, Hajime KOSEMO4, Hiroki IIDA5, Kiyoyuki KITAICHI6
1Lab. of Pharmaceutics, Department of Biomedical Pharmaceutics, Gifu Pharmaceutical University,
2Department of Anesthesiology and Pain Medicine, Gifu University Graduate School of Medicine

AL1-7 Association between the rs11726196 Single-Nucleotide Polymorphism within the Transient Receptor Subfamily C Member 3 (TRPC3) Gene and Chronic Pain

Yoshinori AOKI1, Daisuke NISHIZAWA1, Kaori YOSHIDA2, Hideko ARITA1, Kazuo HANAOKA3, Choku YAJIMA1, Masako ISEKI1, Jitsu KATO1, Setsuro OGAWA2, Ayako HIRANUMA1, Junko HASEGAWA1, Shinya KASAI1, Kaori TAKAHASHI1, 2, Yoshishiko KOUKITA1, Tatsuya INOUE2, Masakazu HAYASHIDA1, 2, 3, Ken-ichi FUKUDA4, Kazutaka IKEDA1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan,
3Department of Anesthesiology and Pain Relief Center, J R Tokyo General Hospital, Tokyo, Japan,
4Department of Anesthesiology & Pain Medicine, Juntendo University School of Medicine, Tokyo, Japan,
5Department of Anesthesiology, Nihon University School of Medicine, Tokyo, Japan,
6Department of Surgery, Toho University Sakura Medical Center, Chiba, Japan,
7Department of Anesthesiology, Saitama Medical University International Medical Center, Saitama, Japan,
8Department of Dental Health and Clinical Science, Tokyo Dental College, Tokyo, Japan

AL1-8 Genome-wide Association Studies on Chronic Pain and Effects of Drugs for the Treatment of Pain

Daisuke NISHIZAWA1, Hideko ARITA1, Kazuo HANAOKA3, Choku YAJIMA1, Masako ISEKI1, Jitsu KATO1, Setsuro OGAWA2, Ayako HIRANUMA1, 2, Shinya KASAI1, Junko HASEGAWA1, Yuko EBATA1, Kyoko NAKAYAMA1, Masakazu HAYASHIDA1, 2, 3, Kazutaka IKEDA1
1Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan,
3Department of Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan

AL1-9 Association between the rs11726196 Single-Nucleotide Polymorphism within the Transient Receptor Subfamily C Member 3 (TRPC3) Gene and Chronic Pain

Yoshinori AOKI1, 2, Daisuke NISHIZAWA1, Kaori YOSHIDA2, Hideko ARITA1, Kazuo HANAOKA3, Choku YAJIMA1, Masako ISEKI1, Setsuro OGAWA2, Ayako HIRANUMA2, 3, Junko HASEGAWA1, Shinya KASAI1, Kaori TAKAHASHI1, 2, Yoshishiko KOUKITA1, Tatsuya INOUE2, Masakazu HAYASHIDA1, 2, 3, Ken-ichi FUKUDA4, Kazutaka IKEDA1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan,
3Department of Anesthesiology and Pain Relief Center, J R Tokyo General Hospital, Tokyo, Japan,
4Department of Anesthesiology & Pain Medicine, Juntendo University School of Medicine, Tokyo, Japan,
5Department of Anesthesiology, Nihon University School of Medicine, Tokyo, Japan,
6Department of Surgery, Toho University Sakura Medical Center, Chiba, Japan,
7Department of Anesthesiology, Saitama Medical University International Medical Center, Saitama, Japan,
8Department of Dental Health and Clinical Science, Tokyo Dental College, Tokyo, Japan

AL1-10 Genome-wide Association Studies on Chronic Pain and Effects of Drugs for the Treatment of Pain

Daisuke NISHIZAWA1, Hideko ARITA1, Kazuo HANAOKA3, Choku YAJIMA1, Masako ISEKI1, Setsuro OGAWA2, Ayako HIRANUMA2, 3, Shinya KASAI1, Junko HASEGAWA1, Yuko EBATA1, Kyoko NAKAYAMA1, Masakazu HAYASHIDA1, 2, 3, Kazutaka IKEDA1
Award Lecture 2

October 13 (Sun), 10:30 - 12:10 / Room 10 (Fukuoka International Congress Center, 4F, 406)

Chairs: Naren RAO (National Institute of Mental Health and Neurosciences, India)
Masabumi MINAMI (Department of Pharmacology, Hokkaido University, Japan)

AL2-1 Similar but different resting state functional connectivities in individuals with attenuated psychosis syndrome compared to patients with first-episode schizophrenia spectrum disorders

Woo-Sung KIM1, Guang Fan SHEN2, Cong Cong LIU3, Young-Chul CHUNG2, 3
1Department of Medical Science, Chonbuk National University, Jeonju, Korea,
2Department of Psychiatry, Chonbuk National University Hospital, Jeonju, Korea,
3Research Institute of Clinical Medicine of Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, Korea

AL2-2 Resting-state functional connectivity of the striatum predicts improvement in negative symptoms and general functioning in patients with first-episode psychosis: A 1-year naturalistic follow-up study

Sanghoon OH1, 2, Minah KIM1, 2, Taekwan KIM3, Tae Young LEE2, Jun Soo KWON1, 2, 3, 4
1Department of Psychiatry, Seoul National University College of Medicine, Seoul, Republic of Korea,
2Department of Neuropsychiatry, Seoul National University Hospital, Seoul, Republic of Korea,
3Department of Brain and Cognitive Sciences, Seoul National University College of Natural Sciences, Seoul, Republic of Korea,
4Institute of Human Behavioral Medicine, SNU-MRC, Seoul, Republic of Korea

AL2-3 Neonatal Tbx1 in stem cells is a determinant of the development of social behavior in mice

Noboru HIROI1, 2, 3, 4, Takeshi HIRAMOTO5, Shuken BOKU6, Gina KANG7, Seiji ABE8, Masako NAGASHIMA9,
Hiroko NOMARU10, 11
1Department of Pharmacology, Department of Cellular and Integrative Physiology, Department of Cell Systems and Anatomy,
2Department of Psychiatry, University of Texas Health Science Center at San Antonio, Texas, USA,
3Department of Psychiatry, Kobe University School of Medicine, Kobe, Japan,
4Department of Hospital Pharmaceutics, School of Pharmacy, Showa University, Tokyo, Japan,
5Department of Psychiatry and Behavioral Sciences, Department of Genetics, Albert Einstein College of Medicine, Bronx, NY, USA

AL2-4 Cognitive function of patients with treatment-resistant depression after a single low dose of ketamine infusion

MunHong CHEN1, 2, Hui-Ju WU3, Tung-Ping SU1, 2, Cheng-Ta LI1, 2, Ya-Mei BAI1, 2, Wei-Chen LIN1, 2, Chih-Ming CHENG1, 2
1Division of Psychiatry, School of Medicine, National Yang-Ming University, Taipei, Taiwan

AL2-5 Manic Episode-Related Methylome and Their Regulatory Function in Bipolar Disorder Patients

Ya-Chin LEE1, Pao-Yang CHEN2, Ming-Hsien HSIEH3, Hsi-Chung CHEN4, Mong-Liang LU4, 5, Chun-Hsien CHEN6, 5,
Wen-Yin CHEN6, Tzu Pin LUI, Ming-Chyi HUANG6, 7, Po-Hsiu KUO1, 7
1Institute of Epidemiology and Preventive Medicine, National Taiwan University, Taiwan,
2Institute of Plant and Microbial Biology, Academia Sinica, Taipei, Taiwan,
3Department of Psychiatry, National Taiwan University Hospital, Taipei, Taiwan,
4Department of Psychiatry, Taipei Veterans General Hospital, Taipei, Taiwan,
5School of Medicine, Taipei Medical University, Taipei, Taiwan,
6Department of Psychiatry, Taipei City Psychiatric Center, Taipei City Hospital, Taipei, Taiwan,
7Research Center for Genes, Environment and Human Health, National Taiwan University, Taipei, Taiwan

AL2-6 Comparison of the effects of vortioxetine and fluoxetine on the Brain-Derived Neurotrophic Factors levels in the hippocampus of chronic unpredictable mild stress-induced depressive rats

Roger C. HO1, 2, Cyrus S. HO1, Wei WANG1, Yanxia LU1
1Department of Psychological Medicine, National University of Singapore,
2Biomedical Institute for Global Health Research and Technology, National University of Singapore,
3Department of Clinical Psychology and Psychiatry, School of Public Health, Zhejiang University College of Medicine, Hangzhou, China,
4Biology of Aging Laboratory, Singapore Immunology Network (SIgN), Agency for Science Technology and Research (A*STAR), Immunos Building, Biopolis, Singapore

AL2-7 The nucleus accumbens dopaminergic systems involve in anti-depressant-like actions of a diet rich in ω-3 polyunsaturated fatty acid in mice

Eri TAKEUCHI1, Daiisuke YAMADA1, Satoshi SUZUKI2, Akiyoshi SAITO2, Masayuki ITOH3, Takashi HAYASHI4,
Mitsuhiko YAMADA1, Keiji WADA1, Masayuki SEKIYAGUCHI1
1Department of Degenerative Neurological Diseases, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, Japan,
2Department of Neuropsychopharmacology, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan,
3Department of Biochemistry and Cellular Biology, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, Japan

AL2-8 Behavioural characterisation of the GluN2DR knock-out mouse model in response to S-ketamine and R-ketamine

Xin DU1, Kazutaka IKEDA2, Suresh SUNDRAM3, Rachel Anne HILL1
1Department of Psychiatry, Monash University, Melbourne, Australia,
2Department of Drug Dependence Research, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan,
Oral Session
Dementia & Neurological Disorders

Chairs: Kyung-Joon MIN (Chung-Ang University Hospital, Korea)
Kiyoyuki KITAICHI (Gifu Pharmaceutical University, Japan)

O1-1 Tau accumulation and metabotropic glutamate receptor subtype 5 binding in patients with frontotemporal lobar degeneration: A PET study
Manabu KUBOTA1, Hitoshi SHIMADA1, Keisuke TAKAHATA1, Kenji TAGAI1, Chie SEKI1, Yasunori SANO1, Yasuhiro YAMAMOTO1, Yuhei TAKADO1, Hiroshi SHINOTOH1, Hisaoishi SUZUKI1, Mitsumoto ONAYA2, Kazunori KAWAMURA2, Ming-Rong ZHANG2, Makoto HIGUCHI2
1Department of Functional Brain Imaging, National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, Chiba, Japan; 2Shimofusa Psychiatric Center, Chiba, Japan

O1-2 Brain histamine re-establishes access to forgotten memories after passage of long time and neuronal degeneration
Hiroshi NOMURA, Ayame KUBO, Kyoka NISHIMURA, Masabumi MINAMI
Department of Pharmacology, Graduate School of Pharmaceutical Sciences, Hokkaido University

O1-3 Action of dual orexin receptor antagonist on amyloid β protein
Shin HASEGAWA1, Leo GOTO1, 2, Koji OGOMORI1, Hiroaki KAWASAKI1
1Department of Psychiatry, Faculty of Medicine, Fukuoka University, Japan; 2Laboratory of Neuroscience, Department of Psychiatry, Faculty of Medicine, Fukuoka University, Japan

O1-4 Porphyromonas gingivalis Infection increases RAGE Production in hCMEC/D3 Cell Line
Fan ZENG1, Junjun NI1, Wanyi HUANG1, Muzhou JIANG1, Zhou WU1, 2
1Department of Aging Science and Pharmacology, Faculty of Dental Sciences, Kyushu University, Japan; 2OBRT Research Center, Faculty of Dental Sciences, Kyushu University

O1-5 Development of novel strategies for genetic analysis and drug discovery for the familial and sporadic dopamine-related disorders
Ichiro KAWAHATA1, Kyoko HOSHINO2, Kazuko HASEGAWA2, Hiroshi ICHINOSE3, Kazuto KOBAYASHI4, Kohji FUKUNAGA1
1Lab of Pharmacology, Grad Sch of Pharm Sci, Tohoku University, Sendai, Japan; 2Segawa Memorial Neurological Clinic for Children, Tokyo, Japan; 3Neurology, Sagamihara National Hospital, Kanagawa, Japan; 4Grad Sch of Biosci, Tokyo Institute of Technology, Kanagawa, Japan

O1-6 Chronic systemic exposure of Lipopolysaccharide from Porphyromonas gingivalis induces memory decline and bone loss in middle-aged mice
Yebo GU1, Junjun NI1, Muzhou JIANG2, Wanyi HUANG2, Zhou WU1, 2, Ichiro TAKAHASHI1
1Section of Orthodontics and Dentofacial Orthopedics, Division of Oral Health, Growth and Development, Faculty of Dental Science, Kyushu University, Fukuoka, Japan; 2OBRT Research Center, Faculty of Dental Sciences, Kyushu University, Fukuoka, Japan

O1-7 Lipopolysaccharide injection triggers indoleamine-2,3-dioxgenase 1 and miR-874-3p interaction which leads to depression-like behavior in mice
Willy Jaya SUENTO1, 4, Kazuo KUNISAWA2, Bolati WULAER1, 3, Tsuhasha IIDA2, Aika KOSUGE2, Akihiro MOURI2, Kumiaki SATO3, 5, Toshitaka NABESHIMA3
1Department of Disease Control and Prevention, Fujita Health University Graduate School of Health Science, Aichi, Japan; 2Department of Medical Biotechnologies and Translational Medicine, University of Milan, Milan, Italy; 3Department of Pharmacological and Biomolecular Sciences, University of Milano-Bicocca, Milan, Italy; 43Institute of Pharmacology, Polish Academy of Sciences, Krakow

O1-8 Restorative properties of the second-generation antipsychotic drug blonanserin on stress-induced oxidative derangements in the rat prefrontal cortex
Marco Andrea RIVA1, Maria Serena PALADINI2, Vittoria SPERO3, Veronica BEGNI1, Alice GUIDI2, Mariusz PAPP3, Raffaella MOLTENF4
1Department of pharmacological and biomolecular sciences, University of Milan, Milan, Italy; 2Department of Medical Biotechnologies and Translational Medicine, University of Milan, Milan, Italy; 3Institute of Pharmacology, Polish Academy of Sciences, Krakow
O1-9  T-type calcium channels are critical for adult mouse hippocampal neurogenesis
Yasushi YABUKI, Kohji FUKUNAGA
Department of Pharmacology, Graduate School of Pharmaceutical Sciences, Tohoku University

O1-10  Kynurenine 3-monoxygenase regulates expression of depression-like behavior via enhanced antagonism of α7 nicotinic acetylcholine receptor by kynurenic acid
Akihiro MOURI1, Yuko MORI2, Kazuo KUNISAWA1-3, Mami HIRAKAWA1, Tomoaki TESHIGAWARA2, Hisayoshi KUBOTA1, Moe NIIJIMA1, Hitodetsugu FUJIGAKI, Yasuko YAMAMOTO2, Toshitaka NABESIMA1, Kuniai SAITO2
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2Department of Disease Control and Prevention, Fujita Health University Graduate School of Health Science, Aichi, Japan,
3Advanced Diagnostic System Research Laboratory, Fujita Health University Graduate School of Health Science, Aichi, Japan

Oral Session 2
October 11 (Fri), 10:30 - 12:10 / Room 17 (Fukuoka Sunpalace Hotel & Hall, 2F, Suehiro)

Childhood & Adolescent Disorders

O2-1  Cortical Surface Architecture Endophenotype and Correlates of Clinical Diagnosis of Autism Spectrum Disorder
Yuta Y. AOKI1, Bun YAMAGATA2, Takashi ITAHASHI1, Junya FUJINO1, Haruhisa OHTA1, Osamu TAKASHI1, Motoaki NAKAMURA1, Nobumasa KATO1, Masaru MIMURA2, Ryu-ichiro HASHIMOTO1
1Institute of Developmental Disabilities Research, Showa University, Tokyo, Japan,
2Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan

O2-2  Proteomic approach reveals molecular basis underlying the comorbidity between autism spectrum disorder and epilepsy
Daisuke TSUBOI1, Imrul Hassan MD CHOWDHURY1, Rei YAMADA2, Toshihisa OHTSUKA1, Kozo KAIBUCHI1
1Department of Cell Pharmacology, Nagoya University, 2Department of Cell Physiology, Nagoya University,
3Department of Biochemistry, Yamanashi University

O2-3  Evidence of Brain Damage in Chronic Ketamine Users – a Brain Imaging Study
Wai Kwong TANG1, 2
1Department of Psychiatry, the Chinese University of Hong Kong, 2Shenzhen Research Institute, the Chinese University of Hong Kong

O2-4  Role of cerebrospinal fluid ethanolamine in psychiatric disorders
Shintaro OGAWA1, Kotaro HATTORI1-2, Daimei SASAYAMA1, Tomoko MIYAKAWA2, Megumi TATSUMI1-2, Sumiko YOSHIDA1, Hiroshi KUNUGI1
1Department of Mental Disorder Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, Japan,
2Medical Genome Center, National Center of Neurology and Psychiatry, Tokyo, Japan,
3Department of Psychiatry, Shinshu University School of Medicine, Nagano, Japan,
4Department of Psychiatry, National Center Hospital, National Center of Neurology and Psychiatry, Tokyo, Japan

O2-5  Subicular pyramidal neurons gate the drug resistance in temporal lobe epilepsy
Cenglin XU, Yi WANG, Zhong CHEN
Department of Pharmacology, College of Pharmaceutical Sciences, Zhejiang University

O2-6  The role of the cerebellum in fear-conditioned bradycardia
Hiroko KOTAJIMA1, Sakae NARUMI2, Kazuhisa SAKAI1, Tsutomu HASHIKAWA1, Michisuke YUZAKI1, Dai YANAGIHARA6
1Addictive Substance Project, Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, 2Department of Physiology, St. Marianna University School of Medicine, 3Institute of Neurosciences, National Institute of Neuroscience, Japan, 4Department of Anatomy and Structural Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, 5Laboratory for Molecular Mechanisms of Thalamus Development, RIKEN Brain Science Institute, 6Department of Neuropsychology, Keio University School of Medicine, 7Department of Life Sciences, Graduate School of Arts and Sciences, The University of Tokyo

O2-7  Personality features associated with side effects of combination pharmacotherapy of zolpidem and other sleeping pills
Kyung Joon MIN, Hyunchan HWANG, Han II RYOO, Sol I KIM, Doug Hyun HAN, Sun Mi KIM
Department of Psychiatry, Chung-Ang University Hospital, Seoul, Korea
O2-8 The use of benzodiazepine receptor agonists and the risk of venous thromboembolism
Tien-Yu CHEN1,4, Wei-Chung MAO2, Nian-Sheng TZENG3, John WINKELMAN1, Cheryl Ch YANG4, Terry Bj KUO4, Chi-Shin WU3
1Department of Psychiatry, Tri-Service General Hospital; School of Medicine, National Defense Medical Center, Taipei, Taiwan,
2Department of Psychiatry, National Taiwan University Hospital, Taipei, Taiwan,
3Department of Psychiatry and Neurology, Massachusetts General Hospital, Harvard Medical School, Boston, USA,
4Institute of brain science, National Yang-Ming University, Taipei, Taiwan,
5Department of Psychiatry, National Taiwan University Hospital, Taipei, Taiwan

O2-9 Real-world effectiveness of ramelteon and suvorexant on delirium prevention in 967 patients with delirium risk factors
Kotaro HATTA1, Yasuhiko KISHI2, Ken WADA1, Takashi TAKEUCHI1, Naoko HASHIMOTO1, Kiyoko SUDA4, Toshihiro TAIRA1, Kazuo TSUCHIDA4, Takashi OHMORI4, Nobuya AKIZUKI1, Yoko NISHIO2, Yukiko NAKANISHI1, Chie USUI1, Akiko KURATA2, Naoki HORIKAWA1, Hiroshi EGUCHI1, Shigeo ITO1, Hitoshi MUTO3, Hiroyuki NAKAMURA1, Naohisa UCHIMURA7
1Department of Psychiatry, Juntendo University Nerima Hospital, Tokyo, Japan,
2Department of Psychiatry, Nippon Medical School Musashikosugi Hospital, Kawasaki, Japan,
3Department of Psychiatry, Hiroshima City Hospital, Hiroshima, Japan,
4Department of Psychiatry, Tokyo Medical and Dental University, Tokyo, Japan,
5Department of Psychiatry, Tokushima Prefectural Central Hospital, Tokushima, Japan,
6Department of Psychiatry, Kurashiki Central Hospital, Kurashiki, Japan,
7Department of Psychiatry, Kanazawa University Graduate School of Medicine, Kanazawa, Japan

O2-10 REM sleep active MCH neurons are involved in forgetting hippocampus-dependent memories
Akihiro YAMANAKA1,2
1Department of Neuroscience II, Research Institute of Environmental Medicine, Nagoya University, Japan, 2CREST, JST, Japan

O3-1 Immunomodulatory properties between different antidepressants in patients with major depressive disorder
Chun-Yen CHEN1,2, Yi-Wei YEH1,2, Shin-Chang KUO1,2, San-Yuan HUANG1,2
1Department of Psychiatry, Tri-Service General Hospital, Taipei, Taiwan, 2National Defense Medical Center, Taipei, Taiwan

O3-2 The Efficacy of Vitamin D3 as Adjuvant Therapy in The Improvement of Depressive Symptoms
Ekachaeryanti ZAIN, Sonny Teddy LISAL, Saidah SYAMSUDDIN, Andi Jayalangkara TANRA
Department of Psychiatry, Faculty of Medicine, Universitas Hasanuddin, Makassar, Indonesia

O3-3 Augmentation with aripiprazole to reduce residual symptoms of depression: A multicenter, 2 months, retrospective, observational study
Cheolmin SHIN, Changsu HAN, Seung-Hoon LEE
Korea University Ansan Hospital

O3-4 Long-term Outcome in Outpatients with Depression Continuously Treated with Intranasal Ketamine: A Chart Review
Hitoshi SAKURAI1,2, David MISCHOULON1, Maurizio FAVA1, Cristina CUSIN1
1Depression Clinical and Research Program, Department of Psychiatry, Massachusetts General Hospital, Boston, USA,
2Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan

O3-5 All suicidal ideations are not created equal: two cases of suicide attempts during maintenance ketamine treatment
Hitoshi SAKURAI1,2, Cristina CUSIN1, Kate BENTLEY1, Paola PEDRELLI1, Simmie FOSTER1, Maurizio FAVA1, David MISCHOULON1
1Depression Clinical and Research Program, Department of Psychiatry, Massachusetts General Hospital, Boston, USA,
2Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan

O3-6 Withdraw
Oral Session 4

Addiction

October 12 (Sat), 14:50 - 16:30 / Room 17 (Fukuoka Sunpalace Hotel & Hall, 2F, Suehiro)

O4-1 Omega-3 PUFAs improve social behaviour and cognitive function in children with ADHD and high inflammation

Jane Pei-Chen CHANG1, 2, 3, Kuan-Pin SU1, 2, 3, Valeria MONDELLI1, Carmine M. PARIANTE1
1Department of Psychological Medicine, Institute of Psychiatry, Psychology and Neuroscience, King’s College London, 2Department of Psychiatry and Mind-Body Interface (MBI) Lab, China Medical University Hospital, Taichung, Taiwan, 3College of Medicine, China Medical University, Taichung, Taiwan

O4-2 Chronic methamphetamine use induces more severe psychotic symptoms than chronic ketamine use

Yanhai LIAO
Mental Health Institute, The Second Xiayi Hospital, Central South University

O4-3 Lamotrigine therapy in ketamine use disorder

Chih-Ken CHEN1, Ming-Chyi HUANG2, Yu-Chao HSU2, Shih-Ku LIN2
1Department of Psychiatry, Chang Gung Memorial Hospital, Keelung, Chang Gung University School of Medicine, Taiwan, 2Taipei City Psychiatric Center, Taipei City Hospital, Taipei, Taiwan

O4-4 Nerve growth factor gene polymorphisms and specific personality in patient with heroin use disorder

San-Yuan HUANG1, Chiang-Chih TSOU2, Chih-Yun HUANG2
1Department of Psychiatry, Tri-Service General Hospital, National Defense Medical Center, 2Doctoral Degree Program in Translational Medicine, National Defense Medical Center and Academia Sinica, Taipei, Taiwan, R.O.C.

O4-5 NGF polymorphisms may predict the risk of alcohol dependence in Han Chinese female population

Chun-Long LIN1, 3, San-Yuan HUANG1, 2
1Graduate Institute of Medical Sciences, National Defense Medical Center, 2Department of Psychiatry, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan, R.O.C., 3Department of Psychiatry, Military Taoyuan General Hospital, Taoyuan, Taiwan, R.O.C.

O4-6 Association VNTR polymorphism dopaminergic system genes with hostility in male population aged 25-64 years: WHO program MONICA-Psychosocial

Dmitriy PANOV1, 2, Valery GAFAROV1, 2, Elena GROMOVA1, 2, Vladimir MAXIMOV1, Igor GAGULIN1, 2, Almira GAFAROVA1, 2
1Institute of Internal and Preventive Medicine - branch of Institute of Cytology and Genetics SB RAS, 2Collaborative laboratory epidemiology cardiovascular diseases
O4-7 The distinction of plasma inflammatory markers and impulsivity in amphetamine-dependent women with and without a history of suicide attempt
Shin-Chang KUO1, 2, Yi-Wei YEH1, 2, Chun-Yen CHEN1, 2, Chang-Chih HUANG1, 3, Chun-Long LIN1, 4, San-Yuan HUANG1, 2
1Graduate Institute of Medical Sciences, National Defense Medical Center, Taipei, Taiwan, R.O.C.,
2Department of Psychiatry, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan, R.O.C.,
3Department of Psychiatry, Buddhist Tzu Chi General Hospital, Taipei Branch, Taipei, Taiwan, R.O.C.,
4Department of Psychiatry, Hsinchu Branch, Taoyuan Armed Forces General Hospital, Hsinchu, Taiwan, R.O.C.

O4-8 Noradrenaline Reuptake Inhibition Increases Control of Impulsive Action by Activating D1-like Receptors in the Infralimbic Cortex
Hitomi SASAMORI, Yu OHMURA, Mitsuhiro YOSHIOKA
Department of Neuropharmacology, Hokkaido University Faculty of Medicine and Graduate School of Medicine, Sapporo, Japan

O4-9 Direct induction of microglia-like cells from human monocytes: A novel cellular tool for translational research of neuropsychiatric disorders
Masahiro OHGIDANI, Takahiro A. KATO
Department of Neuropsychiatry, Kyushu University

O4-10 Ethanol drinking behavior is regulated by RNA editing in the nucleus accumbens
Masaki TANAKA1, Takahira SHIRAHASE1, Yoshithisa WATANABE2
1Department of Anatomy and Neurobiology, 2Basic Geriatrics

Schizophrenia

O5-1 Psychiatrists’ perceptions of medication adherence among patients with schizophrenia: An international survey
Shunya KUROKAWA1, Taishi KISHIMOTO1, 2, Kuan-pin SU3, Jane Pei-Chen CHANG4, Hui-Chih CHANG5, Xin YU3, Nuno RODRIGUES-SILVA3, Jimmy NIelsen4, Anish UNADKAT5, David CASTLE1, Peter M. HADDAD4, Deyvis ROCHA3, Ary GADELHA2, Styliani KALIORA2, Georgios PETERIDES6, Ofer AGID6, Yuki TAZAWA4, Akihiko TAKAMIYA4, Toshiro HORIGOME1, John KANE6
1Department of Psychiatry, Keio University School of Medicine, Tokyo, Japan, 2Department of Psychiatry, The Zucker Hillside Hospital, New York, 3Department of Psychiatry & Mind-Body Interface Laboratory (MBI-Lab), China Medical University Hospital, Taichung, Taiwan, 4Department of Functional Brain Imaging, National Institute of Radiological Sciences, National Institutes for Quantum and Radiological Science and Technology, Chiba, Japan, 5Department of Psychiatry, Kyoju University Graduate School of Medicine, Kyoto, Japan, 6Schizophrenia Program, Centre for Addiction and Mental Health, Department of Psychiatry, Faculty of Medicine, University of Toronto, Canada

O5-2 Withdraw

O5-3 Treatment effects on neurometabolite levels in schizophrenia: A systematic review and meta-analysis of proton magnetic resonance spectroscopy studies
Manabu KUBOTA1, 2, Sho MORIGUCHI1, 2, Keisuke TAKAHATA3, 4, Shinishiro NAKAJIMA4, 5, Nobuyuki HORITA2
1Department of Psychiatry and Mental Health, Cova da Beira University Healthcare Center, Covilhã, Portugal, 2Department of Radiology, Keio University School of Medicine, Tokyo, Japan, 3Department of Psychiatry, The University of Melbourne and St Vincent’s Hospital Melbourne, Australia, 4Department of Psychiatry, University of Toronto, Toronto, Canada, 5Department of Basic Sciences, Yokohama City University Graduate School of Medicine, Yokohama, Japan

O5-4 Withdraw

O5-5 Clozapine-associated obsessive-compulsive symptoms and their management: a systematic review and analyses of 107 reported cases
David D. KIM1, 2, Alasdair M. BARR1, 2, Cynthia LU3, S. Evelyn STEWART1, 2, William G. HONER1, 2, Ric M. PROCYSHYN1, 2
1Department of Anesthesiology, Pharmacology and Therapeutics, University of British Columbia, Vancouver, Canada, 2British Columbia Mental Health & Substance Use Services, Vancouver, Canada, 3Department of Psychiatry, University of British Columbia, Vancouver, Canada
O5-6 The effects of acute finasteride treatment in dopamine transporter knockout mice and MK-801-treated mice
Nageiswari PARATHY, David GROENEWOUD, Hui Min MAK, Peiyan WONG, Gavin DAWE
National University of Singapore

O5-7 Novel schizophrenia phenotype that is found in a created model mouse caused by nutritional environment
Shinobu HIRAI1, Hideki MIWA2, Tomoko TANAKA1, Yasuto KUNII3,4, Makoto ARAI1, Haruo OKADO1
1Lab. of Neural Development, Department of Brain Development and Neural Regeneration, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Molecular Neuropsychopharmacology Section, Department of Neuropsychopharmacology, National Institute of Mental Health: National Center of Neurology and Psychiatry, Tokyo, Japan,
3Lab. of Schizophrenia Research, Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
4Department of Neuropsychiatry, School of Medicine, Fukushima Medical University, Fukushima, Japan,
5Department of Psychiatry, Aizu Medical Center, Fukushima Medical University, Fukushima, Japan

O5-8 Touchscreen cognitive performance following maternal immune activation targeting early and late prenatal neurodevelopmental windows
Jay P. NAKAMURA1, Anna SCHROEDER1, Andrew GIBBONS1, Xin DU1, Maarten VAN DEN BUUSE3, Suresh SUNDRAM1,2, Rachel Anne HILL1
1Department of Psychiatry, Monash University, Clayton, Victoria, Australia, 2Monash Medical Centre, Monash Health, Clayton, Victoria, Australia,
3School of Psychology and Public Health, La Trobe University, Melbourne, Victoria, Australia

O5-9 Psychotropic drugs change rat cortical gene expression to affect protein ubiquitination, oxidative stress, neuroinflammation and xenobiotic metabolism
Brian DEAN1,2,4, Andrew GIBBONS2, Madhara UDAWELA1,2, Elizabeth SCARR1,2,3
1Molecular Psychiatry Laboratory, Florey Institute for Neuroscience and Mental Health, Victoria, Australia.,
2CRC for Mental Health, Victoria, Australia.,
3Melbourne Veterinary School, Faculty of Veterinary and Agricultural Sciences, The University of Melbourne, Victoria, Australia.,
4Centre for Mental Health, the Faculty of Health, Arts and Design, Swinburne University, Victoria, Australia.

O5-10 "D-cell hypothesis of schizophrenia" predicts prospectiveness of TAAR1 medicinal chemistry
Keiko IKEMOTO
Dep. Psychiatry, Iwaki City Medical Center
Poster Session
Addiction 1

Chair: Hwei-Hsien CHEN (Center for Neuropsychiatric Research, National Health Research Institute, Taiwan)

P1-1  Ameliorating effects of monoacylglycerol lipase inhibitor via cannabinoid CB1 receptors on the cue-induced reinstatement of methamphetamine-seeking and anxiety-like behaviors in methamphetamine self-administered rats
Yoko NAWATA1, Taku YAMAGUCHI2, Ryo FUKUMORI2, Tsuyoshi NISHIOKU2, Tsuneyuki YAMAMOTO2
1Department of Pharmacology, Faculty of Pharmaceutical Science, Nagasaki International University, Japan
2Department of Pharmacotherapeutics and Neuropsychopharmacology, Faculty of Pharmaceutical Science, Nagasaki International University

P1-2  MicroRNA expression profiling in methamphetamine-induced rewarding effect
Keisuke MIZUO1, Tomoka YAMAGUCHI, Satoshi WATANABE
1Department of Legal Medicine, Sapporo Medical University, Sapporo, Japan

P1-3  Effect of an osteopontin inducer on methamphetamine dependence
Takumi NAKAJIMA1, Kequan FU2, Yoshiaki MIYAMOTO, Atsumi NITTA1
1Department of Pharmaceutical Therapy and Neuropharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
2Jiangsu Key Laboratory of New Drug Research and Clinical Pharmacy, Xuzhou Medical University, Xuzhou, China

P1-4  Inhibitory effects of downregulation of the presynaptic protein Piccolo on the dependent formation of methamphetamine
Yuka KUSU1, Kyosuke UNO2, Bin GE1, Seiya MORISHTA1, Shin-ichi MURAMATSU1, Atsumi NITTA1
1Lab. of Pharmaceutical Therapy and Neuropharmacology, Department of Pharmaceutical Sciences, University of Toyama, Toyama, Japan
2Laboratory of Molecular Pharmacology, Faculty of Pharmaceutical Sciences, Setsunan University, Japan

P1-5  Role of T-type calcium channels in methamphetamine-induced hyperlocomotion and neuronal excitation in mice
Nene KOIKE1, Yasui HIROKI1, Sekiguchi FUMIKO1, Genzoh TANABE1, Atsufumi KAWABATA1
1Laboratory of Pharmacology Pathophysiology, Faculty of Pharmacy, Kindai University, Osaka, Japan

P1-6  Role of endogenous glutamate peroxidase-1 gene in the dopaminergic neurotoxicity induced by methamphetamine in mice
Naveen SHARMA1, Min Ji KANG1, Duc Toan PHAM1, Quynh Dieu TRINH1, Eun-Joo SHIN1, Hyoung-Chun KIM1
Neuropsychopharmacology and Toxicology Program, College of Pharmacy, Kangwon National University, Chunchon, Republic of Korea

P1-7  Protein kinase Cδ mediates methamphetamine-induced dopaminergic neurotoxicity in mice via activation of microsomal epoxide hydrolase
Naveen SHARMA1, Min Ji KANG1, Duc Toan PHAM1, Quynh Dieu TRINH1, Eun-Joo SHIN1, Hyoung-Chun KIM1
Neuropsychopharmacology and Toxicology Program, College of Pharmacy, Kangwon National University, Chunchon, Republic of Korea

Addiction 2

Chair: Jin-Chung CHEN (Department of Physiology and Pharmacology, Graduate Institute of Biomedical Sciences, Chang Gung University, Taiwan)

P2-1  Experience in Treatment of Insomnia with Suvorexant in Patients with Alcohol Use Disorder in Senogawa Hospital
Ariyuki KAGAYA1, 2, Ryotaro TSUKUE1, Takashi SHIMIZU2, Hidenobu ZENSHO2, Tatsuya FURUSHOU2
1KONUMA Memorial Institute of Addiction and Mental Health, 2Senogawa Hospital

P2-2  Comparisons of Drinking Motives According to Lesch’s Typology
Sacheon JANG
Department of psychiatry, Bongseng Memorial Hospital
P2-3 **Comparisons of Psychological characteristics between Lesch type 2 (anxiety model) and 3 (depressive model) alcoholism**
Saeheon JANG
Department of psychiatry, Bongseng Memorial Hospital

P2-4 **Risks of psychosis in methamphetamine users: a retrospective, cohort study in Thailand**
Warot LAMYAI1, Kitkawee PONO1, Apichart SAENGSI2, Manit SRISURAPANONT1
1Nakhon Phanom Rajanagarindra Hospital, Department of Mental Health, Ministry of Public Health, Thailand,
2Gallyarajangarindra Institute, Department of Mental Health, Ministry of Public Health, Thailand,
3Department of Psychiatry, Faculty of Medicine, Chiang Mai University, Chiang Mai, Thailand

P2-5 **Transcutaneous Electrical Acupoint Stimulation (TEAS) efficacy for craving and addiction severity in opioids use disorder patients within methadone maintenance treatment**
Wenyu HSU1,2,3, Tsung-Chieh LEE4, Hsien-Yuan LANE5,6, Yun-Tai CHEN6
1Department of Psychiatry, Changhua Christian Hospital, Changhua, Taiwan,
2Graduate Institute of Clinical Medical Science, China Medical University, Taichung, Taiwan,
3School of Medicine, Chung Shan Medical University, Taichung, Taiwan,
4Department of Chinese Medicine, Changhua Christian Hospital, Changhua, Taiwan,
5Department of Psychiatry & Brain Disease Research Center, China Medical University and Hospital, Taichung, Taiwan,
6Department of Psychology, College of Medical and Health Sciences, Asia University, Taichung, Taiwan

P2-6 **Neural mechanisms of decision-making under sunk costs and their association with clinical characteristics in gambling disorder**
Junya FUJINO1,2, Ryosaku KAWADA2, Kosuke TSURUMI2, Hideaki TAKEUCHI2, Shisei TEI1,2,3, Takuro MURAO2, Arnyoshi TAKEMURA2, Nobumasa KATO1, Toshiya MURAIF, Hidehiko TAKAHASHII,2,5
1Medical Institute of Developmental Disabilities Research, Showa University, Tokyo, Japan,
2Department of Psychiatry, Graduate School of Medicine, Kyoto University, Kyoto, Japan,
3Department of Tumor Pathology, Hamamatsu University School of Medicine, Hamamatsu, Japan,
4School of Human and Social Sciences, Tokyo International University, Tokyo, Japan,
5Department of Psychiatry and Behavioral Sciences, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan

P2-7 **Mediating effects of affect on associations between impulsivity or resilience and internet gaming disorder**
Daun SHIN1, Minkyung PARK2, Jiyoong LEE2, A Ruem CHOI2, Sun Ju CHUNG2, Bomi KIM2, Myung Hun JUNG2, Dai Jin KIM2, Jung-Seok CHOI1,3
1Department of Neuropsychiatry, Seoul National University Hospital,
2Department of Clinical Nursing, Seoul St. Mary’s Hospital, The Catholic University of Korea College of Medicine, Seoul, Republic of Korea,
3Department of Psychiatry, Seoul National University College of Medicine, Seoul, Republic of Korea
P3-4 Involvement of free fatty acid receptor 1 (FFAR1) in the regulation of striatal monoamine releases and cocaine-induced locomotor activity in mice
Shanta THAPA1,2, Yuko SADAMURA1,2, Ryota MIZUNUMA1, Yuki KAMBE1, Akira HIRASAWA1, Kuzuo NAKAMOTO4, Shogo TOKUYAMA1, Kazunori ARITA1, Koji YOSHIMOTO1, Atsuo MIYATA1, Tatsuki OYOSHI1, Takashi KURIHARA1
1Department of Pharmacology, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, Japan, 2Department of Neurosurgery, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, Japan, 3Department of Genomic Drug Discovery Science, Graduate School of Pharmaceutical Sciences, Kyudo University, Kyoto, Japan, 4Department of Clinical Pharmacy, School of Pharmaceutical Sciences, Kobe Gakuin University, Hyogo, Japan

P3-5 Cocaine Increases Endocannabinoids-Containing Extracellular Vesicles Release from Dopaminergic Neurons via Sigma-1 Receptor and ADP-Ribosylation Factor 6 Pathway
Yuki NAKAMURA1,2, Dilyan I. DRYANOVSKI3, Carl R. LUPICA3, Tsung-Ping SU2
1Department of Pharmacology, Graduate School of Biomedical & Health Sciences, Hiroshima University, 2Cellular Pathobiology Section, Integrative Neuroscience Research Branch, Intramural Research Program, National Institute on Drug Abuse, 3Electrophysiology Research Section, Cellular Neurobiology Research Branch, Intramural Research Program, National Institute on Drug Abuse

P3-6 Yokukansan, a traditional Japanese kampo medicine, suppresses the ethanol-withdrawal signs in ethanol-dependent mice
Hideaki KATO, Minoru TSUJI, Kazuya MIYAGAWA, Hiroshi TAKEDA
Dept. Pharmacol., Sch. Pharm., Int. Univ. Health and Welfare, Tochigi, Japan

P4-1 Efficacy of Lurasidone Monotherapy in the Treatment of Bipolar I Depression: A Randomized, Double-Blind, Placebo-Controlled 6-week Study (ELEVATE study)
Takahiro MASUDA1, Tadafumi KATO2, Jun ISHIGOOKA1, Kei WATABE1, Mari MIYAJIMA1, Teruhiko HIGUCHI1,5
1Institute of CNS Pharmacology, Japan, 2RIKEN Brain Science Institute, Japan, 3Institute of CNS Pharmacology, Japan, 4The National Center of Neurology and Psychiatry, Japan

P4-2 Safety and Tolerability of Lurasidone Monotherapy in the Treatment of Bipolar I Depression: A Randomized, Double-Blind, Placebo-Controlled 6-week Study (ELEVATE study)
Takahiro MASUDA1, Jun ISHIGOOKA1, Tadafumi KATO2, Kei WATABE1, Mari MIYAJIMA1, Teruhiko HIGUCHI1,5
1Institute of CNS Pharmacology, Japan, 2RIKEN Brain Science Institute, Japan, 3Institute of CNS Pharmacology, Japan, 4The National Center of Neurology and Psychiatry, Japan

P4-3 Lurasidone in the Long-Term Treatment of Bipolar I Depression: A 28-week Open Label Extension Study (ELEVATE extension study)
Jun ISHIGOOKA1, Tadafumi KATO2, Mari MIYAJIMA1, Kei WATABE1, Takahiro MASUDA1, Teruhiko HIGUCHI1,5
1Institute of CNS Pharmacology, Japan, 2RIKEN Brain Science Institute, Japan, 3Institute of CNS Pharmacology, Japan, 4The National Center of Neurology and Psychiatry, Japan

P4-4 Prediction of Plasma Levels of Quetiapine and its Metabolites in Taiwanese Psychiatric Patients
Yen-Feng LIN1, Shih-Ku LIN2,3
1Balance Psychiatric Clinic, Hsinchu City, Taiwan, 2Department of Psychiatry, Taipei City Hospital and Psychiatric Center, Taipei City, Taiwan, 3Department of Psychiatry, School of Medicine, Taipei Medical University, Taipei City, Taiwan

P4-5 Clinical correlates associated with the long-term response of bipolar disorder patients to lithium, valproate, or lamotrigine: a retrospective study
Nak-Young KIM, Young Sup WOO, Won-Myong BAHK
Department of Psychiatry, The Catholic University of Korea

P4-6 Driving performance of outpatients with bipolar disorder undergoing real-world pharmacotherapy
Kumihiro IWAMOTO1, Akiko YAMAGUCHI1, Masahiko ANDO2, Kiyoshi FUJITA1, Motonori YOKOYAMA4, Tsuyoshi AKIYAMA1, Yoshio IGRASHI2, Reiji YOSHIMURA2, Norio OZAKI1
1Department of Psychiatry, NTT Medical Center Tokyo, Tokyo, Japan, 2Medical Care Toranomon, Tokyo, Japan, 3Medical Care Toranomon, Tokyo, Japan, 4Department of Psychiatry, University of Occupational and Environmental Health, Fukuoka, Japan
P4-7  **Study of Teneurin-4 function to elucidate the pathological mechanism of bipolar disorder**
Fumitaka NAKANO1, Kyosuke UNO1,2, Kazuki TAKORO1, Hiroki TAKEMOTO1, Atsumi NITTA1,2
1Department of Pharmaceutical Therapy and Neuropharmacology, Faculty of Pharmaceutical Sciences, University of Toyama, Toyama, J apan, 2Department of Pharmaceutical Therapy and Neuropharmacology, Graduate School of Medicine and Pharmaceutical Science, University of Toyama, Toyama, J apan.

Poster Session 5  October 12 (Sat), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Bipolar Disorders 2

Chair: Shang-ying TSAI (Department of Psychiatry, Taipei Medical University and Hospital, Taiwan)

P5-1  **Risk and Coaggregation of Major Psychiatric Disorders among First-Degree Relatives of Patients with Bipolar Disorder: A Nationwide Population-Based Study**
MuHong CHEN1, 2, Ya-Mei BAI1, 2, Tung-Ping SU1, 2
1Department of Psychiatry, Taipei Veterans General Hospital, 2Division of Psychiatry, School of Medicine, National Yang-Ming University, Taipei, Taiwan.

P5-2  **Psychometric properties of the Clinically Useful Depression Outcome Scale supplemented with questions for the DSM-5 Mixed subtype (CUDOS-M) in Chinese patients with mood disorders**
Yanli DU1, Jianbo HU2, Tingting HUANG3, Jianbo LAF, Weihua ZHANG4, Chao LI1, Zhongya XU3, Hetong ZHOU2, Shaohua HU2, Liemin RUAN4, 1Zhejiang University School of Medicine, Hangzhou, China, 2Department of Psychiatry, First Affiliated Hospital, Zhejiang University School of Medicine, Hangzhou, China, 3Department of Psychiatry, Jiaxing Kangci Hospital, Jiaxing, China, 4Department of Psychosomatics, Ningbo First Hospital, Ningbo, China.

P5-3  Withdraw

P5-4  Withdraw

P5-5  **Reduced plasma orexin-A levels in patients with bipolar disorder**
Shoko TSUCHIMINE1, Kotaro HATTORI1, Miho OTA1, Shinsuke HIDESE1, Toshiya TERAIISHI1, Daimei SASAYAMA1, Hiroaki HORT1, Takamasa NODA1, Sumiko YOSHIDA1, Fuyuko YOSHIDA1, Hiroshi KUNUGI1
1Department of Mental Disorder Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry, 2Department of Psychiatry, National Center Hospital, National Center of Neurology and Psychiatry

P5-6  **No evidence for association between mood stabilizer and plasma FGF21 level in bipolar disorder**
Sayuri ISHIWATA1, Hisayoshi TAKAF, Favour OMILEKE1, Kotaro HATTORI1, Fuyuko YOSHIDA1, Shinsuke HIDESE1, Junko MATSUO1, Ikki TSUKISHIMA1, Moeko HIRAISHI1, Hiroshi KUNUGI1, 1Department of Mental Disorder Research, National Center of Neurology and Psychiatry, Tokyo, J apan, 2Kawasaki City Institute for Public Health, Kawasaki, J apan, 3Medical Genom Center, National Center of Neurology and Psychiatry, Tokyo, J apan.

Poster Session 6  October 13 (Sun), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Obsessive Compulsive Disorders

Chair: Yuji ODAGAKI (Saitama Medical University, J apan)

P6-1  **Resting-state functional connectivity of the raphe nucleus as a predictor of the response to selective serotonin reuptake inhibitors in patients with obsessive-compulsive disorder**
Minah KIM1, 2, Seoyeon KWAK1, Youngwoo Bryan YOON4, Yoo Bin KWAK1, Taekwan KIM2, Kang Ik K. CHO3, Tae Young LEE1, Jun Soo KWON1, 2, 3, 5
1Department of Neuropsychiatry, Seoul National University Hospital, 2Department of Psychiatry, Seoul National University College of Medicine, 3Department of Brain and Cognitive Sciences, Seoul National University College of Natural Science, 4Department of Psychiatry, Washington University in St. Louis, 5Institute of Human Behavioral Medicine, SNU-MRC
P6-2 An examination of the possible effect of the olfactory function on the treatment responses in patients with Obsessive Compulsive Disorder (OCD)
Takuya HASHIMOTO1, Hirokazu KUMAZAKI1, Keiichiro MUKAI1, Masahiro MIYAUCHI1, Kyousuke YAMANISHI1, Naomi MATSUURA2, Hisato MATSUNAGA2
1Department of Neuropsychiatry Hyogo college of Medicine, Hyogo, J anpan, 2Department of Preventive intervention for Psychiatric Disorders, National Institute of Mental Health, National Center of Neurology and Psychiatry, 3Special Education Course, Faculty of Education, Mie University, Tsu, J anpan

P6-3 Withdraw

P6-4 Combined Repeated Transcranial Magnetic Stimulation and Psychotherapy in Treatment Resistant Obsessive-Compulsive Disorder Comorbid with Major Depressive Disorder: a Case Report
Po-Han CHOU1, 2, Jui-Cheng CHEN3
1Department of Psychiatry, China Medical Hsinchu Hospital, Taiwan., 2Department of Psychiatry, China Medical Hospital, Taichung, Taiwan., 3Department of Neurology, China Medical Hsinchu Hospital, Taiwan.

P6-5 Efficacy of electroconvulsive therapy in treatment-refractory obsessive-compulsive symptoms: two case reports
Anri WATANABE, Takashi NAKAMAE, Nobutaka John AYANI, Junko ONO, Nozomu OYA, Jin NARUMOTO
Department of Psychiatry, Graduate School of Medical Science, Kyoto Prefectural University of Medicine, Kyoto, J anpan.

P6-6 An adenosine A2A receptor antagonist, istradsyfylline, improves multiple symptoms reflecting obsessive-compulsive disorder in mice
Nozomi ASAOKA1, 2, Naoya NISHITANI1, Haruko KINOSHITA1, Yuma NAGAI1, Hikari HATAKAMA1, Kazuki NAGAYASU1, Hisashi SHIRAKAWA1, Takayuki NAKAGAWA1, Chihiro YABE-NISHIMURA1, Shuji KANAKO1
1Department of M olecular Pharmacology, Graduate School of Pharmaceutical Sciences, Kyoto University, Kyoto, J anpan, 2Department of Pharmacology, Kyoto Prefectural University of Medicine, Kyoto, J anpan.

Poster Session 7
October 11 (Fri), 13:40 - 15:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Depression 1

Chair: Cheng-Ta LI (1Department of Psychiatry, Taipei Veterans General Hospital, Taiwan)

P7-1 Shared Genetic Etiology between Anxiety Disorders and Psychiatric and Related Intermediate Phenotypes
Kazutaka OHI1, 2, Takeshi OTOWA1, Mihoko SHIMADA4, 5, Tsukasa SASAKI1, Hisashi TANI17, 8
1Medical Research Institute, Kanazawa Medical University, Ishikawa, J anpan, 2Department of Neuropsychiatry, Kanazawa Medical University, Ishikawa, J anpan, 3Graduate School of Clinical Psychology, Professional Degree Program in Clinical Psychology, Teikyo Heisei University, Tokyo, J anpan, 4Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Tokyo, J anpan, 5Department of Human Genetics, Graduate School of Medicine, The University of Tokyo, Tokyo, J anpan, 6Department of Physical and Health Education, Graduate School of Education, The University of Tokyo, J anpan, 7Center for Physical and Mental Health, Mie University, Mie, J anpan, 8Graduate School of Medicine, Department of Health Promotion and Disease Prevention, Mie University, Mie, J anpan

P7-2 Effects of CYP2D6 polymorphism on enlamic metabolism of venlafaxine and O-desmethylvenlafaxine in Japanese patients
Taro SASAKI1, Takashi WATANABE1, 4, Yoshimasa INOU1, Hazuki SASAKI1, Masatake SHINOZAKI1, Akiko AOKI1, Yuki HAYASHI1, Kazuko KATO1, Zinichiro KURODA1, Norio FURUKORI1, Kazutaka SHIMODA1
1Department of Psychiatry Dokkyo Medical University, Tochigi, J anpan, 2Department of Psychiatry Dokkyo Medical University, Tochigi, J anpan, 3Center for Physical and Mental Health, Mie University, Mie, J anpan, 4Graduate School of Medicine, Department of Health Promotion and Disease Prevention, Mie University, Mie, J anpan

P7-3 Transcriptome analysis of major depressive patients and stress model mice showing depressive-like behaviors
Akira YOSHIMI1, 2, 3, Iyo MURAKAWA1, Hirotake HIDA1, 2, Sho HASEGAWA1, Takahiro ITO1, Mizuki UCHIDA1, Itaru KUSHIMA1, 2, Norio OZAKI1, Yukihito NODA1, 2, 3
1Division of Clinical Sciences and Neuropsychopharmacology, Faculty and Graduate School of Pharmacy, Meijo University, Nagoya, J anpan, 2Department of Neuropsychopharmacology and Hospital Pharmacy, Nagoya University Graduate School of Medicine, Nagoya, J anpan, 3Institute for Advanced Research, Nagoya University, Nagoya, J anpan.

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P7-4  p11 in cholinergic interneurons of the nucleus accumbens is essential for dopamine responses to rewarding stimuli

Yukie KAWAHARA¹, Yuuki HANADA¹, Yosinori OHNISHI¹, Takahide SHUTO², Mahomi KUROIWA¹, Naoki SOTOGAKU¹, Hiroshi KAWAHARA², Akinori NISHI³

¹Dept. of Pharmacology, Kurume University School of Medicine, Fukuoka, Japan,
²Dept. of Dental Anesthesiology, School of Dental Medicine, Tsurumi University, Kanagawa, Japan

P7-5  Activation of neural projection from the medial prefrontal cortex to the periaqueductal gray promotes reward-seeking behavior in a conflict context

Yuki HONSHUKU, Ryoki SAITO, Takuju SOGA, Natsuko HITORA-IMAMURA, Masabumi MINAMI

Lab. of Pharmacology, Department of Pharmacy, Hokkaido University, Hokkaido, Japan

P7-6  Relationship between Lymphocyte Levels and Degrees of Depression in Patients with Pulmonary Tuberculosis

Yuliana AZIS, Muhammad Faisal IDRUS, Saidah SYAMSUDDIN, Andi Jayalangkara TANRA

Department of Psychiatry, Faculty of Medicine, Universitas Hasanuddin, Makassar, Indonesia

P7-7  Comparison of Effect of Two-Hour Exposure to Forest and Urban Environments on Cytokine, Antioxidant, and Stress Levels in Young Adults

Won KIM

Department of Psychiatry, Seoul Paik Hospital, Inje University

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P8-1  A new animal model for "shaken baby syndrome": Neuropathological, behavioral, hormonal and neurochemical analyses

Shuichi UEDA¹, Yasushi KAWAMATA², Ayuka EHARA¹, Tsuyoshi YAMAGUCHI¹, Yoshiteru SEO¹, Kazutaka SHIMODA²

¹Department of Histology and Neurobiology, Dokkyo Medical University School of Medicine, Tochigi, Japan,
²Department of Psychiatry, Dokkyo Medical University School of Medicine, Mibu, Tochigi, Japan

P8-2  The role of cytokines in fear memory shown in tumor-bearing mice

Hiroko IKEDA¹, Aimi YAMAGISHI¹, Naomi YONEMOCHI¹, Takatsune SHIMIZU², Akihiro MUTO³, Junzo KAMEI³

¹Department of Pathophysiology and Therapeutics, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan,
²Department of Pathophysiology, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan,
³Department of Biomolecular Pharmacology, Hoshi University School of Pharmacy and Pharmaceutical Sciences, Tokyo, Japan

P8-3  Anxiety-like behaviors are enhanced by lactate dehydrogenase inhibitor in a mouse model of chronic social defeat stress

Hideo HAGIHARA, Hirotaka SHOJI, Yoshihiro TAKAMIYA, Tsuyoshi MIYAKAWA

Division of Systems Medical Science, Institute for Comprehensive Medical Science, Fujita Health University, Aichi, Japan

P8-4  Chronic stress-induced alteration of synaptic transmission in the dorsolateral bed nucleus of the stria terminalis

Ryuto HARA, Tatsuhiro TAKEHARA, Daiki TAHASHI, Saki MINAMI, Taiju AMANO, Masabumi MINAMI

Department of Pharmacology, Graduate School of Pharmaceutical Sciences, Hokkaido University, Sapporo, Japan

P8-5  Inactivation of orbitofrontal cortex prevents stress-induced behavioral change in mice

Shuhei KAYASHIMA⁴, Hiroshi KUNISHI⁴, Kazumi YOSHIZAWA⁴, Masayuki SEKIGUCHI⁴, Misuhiyo YAMADA⁴

¹Department of Neuropsychopharmacology, National Institute of Mental Health, National Center of Neurology and Psychiatry, Tokyo, Japan,
²Laboratory of Pharmacology and Therapeutics, Faculty of Pharmaceutical Sciences, Tokyo University of Science, Chiba, Japan,
³Department of Degenerative Neurological Diseases, National Institute of Neuroscience, National Center of Neurology and Psychiatry, Tokyo, Japan
P8-6 Involvement of glutamate receptors in the impairment of social behaviors induced by social defeat stress exposure as juveniles
Mikio YOSHIDA1, Sho HASEGAWA1, Mizuki UCHIDA1, Yoji UCHIDA1, Akihiro MOURI1, 6, Akira YOSHIMI1, 3, Masayoshi MISHINA4, Norio OZAKI1, Toshitaka NABESHIMA1, 6, Yukihiro NODA1, 3, 6
1Division of Clinical Sciences and Neuropsychopharmacology, Faculty and Graduate School of Pharmacy, Meijo University, Nagoya, Japan
2Department of Regulatory Science for Evaluation and Development of Pharmaceuticals and Devices, Graduate School of Health Sciences, Fujita Health University, Aichi, Japan
3Laboratory of molecular pharmacology faculty of pharmaceutical science, University of Setsunan, Osaka, Japan
4Brain Science Laboratory, The Research Organization of Science and Technology, Ritsumeikan University, Shiga, Japan
5Advanced Diagnostic System Research Laboratory, Fujita Health University Graduate School of Health Sciences, Aichi, Japan
6japanese Drug Organization of Appropriate Use and Research, Nagoya, Japan

P8-7 Inducible effects of decreased Teneurin-4 in the prefrontal cortex of mice on the depressive behavior
Kazuki TOKORO1, Kyosuke UNO1, 2, Shin-ichi MURAMATSU3, 4, Atsumi NITTA1
1Department of Pharmaceutical Therapy and Neuropharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan
2Laboratory of Molecular Pharmacology, Faculty of Pharmaceutical Science, University of Setsunan, Osaka, Japan
3Division of Neurology, Department of Medicine, Jichi Medical University, Shimotsuke, Japan
4Center for Gene and Cell Therapy, Institute of Medical Science, The University of Tokyo, Tokyo, Japan

P9-1 Persistent antidepressant effect of low-dose ketamine and activation in the supplementary motor area and anterior cingulate cortex in treatment-resistant depression
MuHong CHEN1, 2, Hui-Ju WU1, Tung-Ping SU1, 2, Cheng-Ta LI1, 2, Ya-Mei BAI1, 2, Wei-Chen LIN1, 2, Chih-Ming CHENG1, 2
1Department of Psychiatry, Taipei Veterans General Hospital
2Division of Psychiatry, School of Medicine, National Yang-Ming University, Taipei, Taiwan

P9-2 Rapid inflammation modulation and antidepressant efficacy of a low-dose ketamine infusion in treatment-resistant depression
MuHong CHEN1, 2, Hui-Ju WU1, Tung-Ping SU1, 2, Cheng-Ta LI1, 2, Ya-Mei BAI1, 2, Wei-Chen LIN1, 2, Chih-Ming CHENG1, 2
1Department of Psychiatry, Taipei Veterans General Hospital
2Division of Psychiatry, School of Medicine, National Yang-Ming University, Taipei, Taiwan

P9-3 Combined treatment with dimethylglycine attenuates the behavioral deficits induced by repeated ketamine exposure
Ming-Huan CHAN1, Mei-Yi LEE2, Shao Tsu CHEN1, Chung-Pin HSIEH2, Hwei-Hsien CHEN2
1Institute of Neuroscience, National Chengchi University
2Center for Neuropsychiatric Research, National Health Research Institutes
3Department of Psychiatry, Tzu Chi University

P9-4 Dopamine D1 receptors in the dentate gyrus amplify therapeutic action of SSRI
Takahide SHUTO, Mahomoi KUROIWA, Naoki SOTOGAKU, Yukie KAWAHARA, Yoshinori OHNISHI, Yuuki HANADA, Akinori NISHI
Department of Pharmacology, Kurume University School of Medicine, Fukuoka, Japan

P9-5 Salivary Alpha Amylase Enzyme and Salivary Cortisol Level in Depression after Treatment with Fluoxetine
Andi Jayalangkara TANRA, Hawaidah MADEALI, Mayamariska SANUSI, Dwiwahyu Ningsih SUNARTO, Saidah SYAMSUDDIN, Sonny Teddy LISAL
University of Hasanuddin

P9-6 Guidelines for the Treatment of Girls and Women: applications to clinical psychopharmacology
Frederick M. JACOBSEN1, 2, Lillian COMAS-DIAZ1, 2
1The George Washington University School of Medicine
2Transcultural Mental Health Institute

Maiko HAYASHI1, Tsuyoshi MIYAOKA1, Tomoko ARAKI1, Toshiko MINAMOTO2, Sadayuki HASHIOKA1, Rei WAKE1, Masatoshi INAGAKI1
1Department of Psychiatry, Faculty of Medicine, Shimane University
2Department of Obstetrics, Faculty of Medicine, Shimane University
**Poster Session 10**

**Depression 4**

**Chair:** Hirokazu MIZOGUCHI (Department of Physiology and Anatomy, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University, Japan)

**P10-1** Possible involvement of histone acetylation in the stress responses associated with central 5-HT neuronal regulation in mice

Kazuya MIYAGAWA, Atsumi MOCHIDA-SAITO, Kazuhiro KUROKAWA, Hidenao KIMIJIMA, Minoru TSUJI, Hiroshi TAKEDA

Department of Pharmacology, School of Pharmacy, International University of Health and Welfare, Tochigi, Japan

**P10-2** BDNF/VEGF release and mTORC1 activation in the medial prefrontal cortex are required for the antidepressant actions of resolvin E1 in lipopolysaccharide-induced depression model mice

Satoshi DEYAMA1, Kohei ISHIMURA2, Hayato FUKUDA1, Satoshi SHUTO2, Masabumi MINAMI1, Katsuyuki KANEDA1

1Lab. of Molecular Pharmacology, Institute of Medical, Pharmaceutical and Health Sciences, Kanazawa University, Kanazawa, Japan,
2Lab. of Organic Chemistry for Drug Development, Graduate School of Pharmaceutical Sciences, Hokkaido University, Sapporo, Japan,
3Pharmaceutical Organic Chemistry Lab., Graduate School of Biomedical Sciences, Nagasaki University, Nagasaki, Japan,
4Department of Pharmacology, Graduate School of Pharmaceutical Sciences, Hokkaido University, Sapporo, Japan

**P10-3** The glutamate release inhibition from presynaptic site in mice medial prefrontal cortex via a delta opioid receptor

Akiyoshi SAITO1, Daisuke YAMADA2, Jun-Ichiro OKA3, Hiroshi NAGASE2

1Lab. Pharmacol, Fac Pharm Sci, Tokyo Univ of Science, Chiba, Japan, 2IIIS, University of Tsukuba, Ibaraki, Japan

**P10-4** Repeated social defeat stress induces microglial activation and myelin abnormality in the corpus callosum: a potential link to depression-like behavior

Tsubasa IIDA1, Kazuo KUNISAWA2, Sei SAITO2, Aika KOSUGE1, Wulaer BOLATI1, Willy Jaya SUENTO1, Yoko YAMAMOTO1, Akira YOSHIMI1, Norio OZAKI1, Takahiro ITO1

1Department of Regulatory Science for Evaluation & Development of Pharmaceuticals & Devices, Fujita Health University Graduate School of Health Sciences, Aichi, Japan, 2Department of Anatomy II and Cell Biology, Fujita Health University School of Medicine, Aichi, Japan,
3Advanced Diagnostic System Research Laboratory, Fujita Health University Graduate School of Health Sciences, Aichi, Japan,
4Department of Disease Control and Prevention, Fujita Health University Graduate School of Health Sciences, Aichi, Japan,
5Department of Psychiatry, Hasanuddin University, South Sulawesi, Indonesia

**P10-5** Repeated social defeat stress induces depression-like behavior through the decrease of GLT-1 ubiquitination in the prefrontal cortex of mice

Aika KOSUGE1, Kazuo KUNISAWA2, Tsubasa IIDA2, Wulaer BOLATI1, Willy Jaya SUENTO1, Yoko YAMAMOTO1, Akira YOSHIMI1, Norio OZAKI1, Takahiro ITO1

1Department of Regulatory Science for Evaluation & Development of Pharmaceuticals & Devices, Fujita Health University Graduate School of Health Sciences, Aichi, Japan,
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3Department of Disease Control and Prevention, Fujita Health University Graduate School of Health Sciences, Aichi, Japan,
4Department of Psychiatry, Hasanuddin University, South Sulawesi, Indonesia

**P10-6** Activation of 5-HT1A receptor protects the myelin loss in a mouse model of stress-maladaptation

Kazuhiro KUROKAWA, Minoru TSUJI, Kazuya MIYAGAWA, Atsumi MOCHIDA-SAITO, Hiroshi TAKEDA

Department of Pharmacology, School of Pharmacy, International University of Health and Welfare, Tochigi, Japan

**P10-7** Dysfunction of protein kinase C-beta I (PKCβI) - serotonin transporter (SERT) systems is involved in depression-like behaviors in stressed mice

Takahiro ITO1, Yuka HIRAMATSU1, Mizuki UCHIDA1, Akira YOSHIMI1, Norio OZAKI2, Yukihiro NODA1,2

1Division of Clinical Sciences and Neuropsychopharmacology, Meijo University Faculty and Graduate School of Pharmacy, Nagoya, Japan,
2Department of Psychiatry, Nagoya University Graduate School of Medicine, Nagoya, Japan

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**Poster Session 11**

**Depression 5**

**Chair:** Hiroki ISHIGURO (Department of Psychiatry and Clinical Ethics, University of Yamanashi, Japan)

**P11-1** Neural Basis of Aesthetic Emotion: Origin of Prosocial Behavior and Aggression

RYOTO TAKANO1,2, Michio NOMURA1

1Division of Cognitive Psychology, Graduate School of Education, Kyoto University, Japan, 2Japan Society for the Promotion of Science

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6th Congress of Asian College of Neuropsychopharmacology (AsCNP)
P11-2 Validation of the Korean Version of the Generalized Anxiety Disorder -7 Self-rating Scale
Seung-Hoon LEE, Changsu HAN, Cheolmin SHIN, Hyounwook KIM
Department of Psychiatry, College of Medicine, Korea University

P11-3 Association study for the relationship between response inhibitory event-related potentials (Go/Nogo) and symptoms of attention-deficit/Hyperactivity disorder in adult patient with major depressive disorder
EunJee KIM, JiSun KIM, WanJoon KWON, SeHoon SHIM
Department of Psychiatry, Soonchunhyang University Cheonan Hospital

P11-4 Medication Integration Workforce by Community Pharmaceutical Home Care in Taiwan
Hsuan CHANG1,2, Kai-Jen CHENG1,2, Wan-Fu TSAI1, Tzu-Hua WU1
1Division of Clinical Pharmacy, School of Pharmacy, College of Pharmacy, Taipei Medical University, Taipei, Taiwan,
2New Taipei City Pharmacists Association, New Taipei City, Taiwan

P11-5 Withdraw

P11-6 Circulating T lymphocyte subsets, cytokines, and immune checkpoint inhibitors in patients with bipolar II
Jing LU, Chao Bo HUANG, Ting Ting MOU, Mei Hai LI, Hua Shao HU
Department of Neurobiology; Zhejiang Province Key Laboratory of Mental Disorder’s Management, Zhejiang University School of Medicine

Poster Session 12 October 13 (Sun), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Depression 6
Chair: Yu OHMURA (Department of Neuropharmacology, Faculty of Medicine and Graduate School of Medicine, Hokkaido University, Japan)

P12-1 Decrease in striatal Shati/Nat8l induces resilience of depression via regulation of acetylation of histone in the Bdnf gene
Hajime MIYANISHI1, Kyouko UNO1, 2, Shin-ichi MURAMATSU3, 4, Atsumi NITTA1
1Department of Pharmaceutical Therapy and Neuropharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine and Pharmaceutical Sciences, Toyama university, Toyama,
2Laboratory of Molecular Pharmacology, Faculty of Pharmaceutical Sciences, Satsunai University, Hiraoka, Japan,
3Division of Pharmaceutical Therapy and Neuropharmacology, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan,
4Center for Gene & Cell Therapy, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

P12-2 Antidepressant induces glial cell line-derived neurotrophic factor production through Gαi/o-coupled lysophosphatidic acid receptor 1/Src tyrosine kinase/matrix metalloproteinase-9 cascade in rat astroglial cells
Hiromi ABE1, 2, Naoto KAJITANI1, Mami OKADA-TSUCHIOKA1, Wataru OMORI1, Masahide YATSUMOTO2,
Minoru TAKEBAYASHI1, 3
1Division of Psychiatry and Neuroscience, Institute for Clinical Research, National Hospital Organization (NHO) Kure Medical Center and Chugoku Cancer Center,
2Department of Pharmacy, National Hospital Organization (NHO) Kure Medical Center and Chugoku Cancer Center, Kure, Japan,
3Department of Neuropsychiatry, Faculty of Life Sciences, Kumamoto University, Kumamoto, Japan

P12-3 Generation of serotonergic neurons from human induced pluripotent stem cells through forced expression of serotonin neuron-specific transcription factors
Yuma NAGAI1, Kazuki NAGAYASU1, Konomi MASUNAKA2, Yukio AGO2, 3, Atsushi KASAF2, Hisashi SHIRAKAWA1,
Takanobu NAKAZAWA1, 4, Hitoshi HASHIMOTO1, 5, 6, 7, Shuji KANEKO1
1Department of Molecular Pharmacology Graduate School of Pharmaceutical Sciences, Kyotou University, Kyoto, Japan,
2Laboratory of Molecular Neuropharmacology, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan,
3Laboratory of Molecular Biopharmaceutics, Graduate School of Pharmaceutical Sciences, Osaka University, Osaka, Japan,
4Department of Pharmaceutical Therapy, Graduate School of Dentistry, Osaka University, Osaka, Japan,
5Molecular Research Center of Children’s Mental Development, United Graduate School of Child Development, Osaka University, Osaka, Japan,
6Division of Biosciences, Institute for Datability Science, Osaka University, Osaka, Japan,
7Open and Transdisciplinary Research Initiatives, Osaka University, Osaka, Japan

P12-4 Possible involvement of AKT-GSK3β signal-upregulated MEF2D protein in imipramine-enhanced the expression of astrocytic interleukin-10 under inflammatory state
Yosuke YAMAWAKI1, 2, Satomi SHIRAWACHI2, Munechika TAKAIISHI3, Shigeto YAMAWAKI1, Takashi KANEMATSU3, 4,
1Department of Advanced Pharmaceutical, Daiichi University of Pharmacy, Fukuoka, Japan,
2Department of Cellular and Molecular Pharmacology Institute of Biomedical and Health Sciences Hiroshima University, Hiroshima, Japan,
3Office of Industry-Academia-Government and Community Collaboration Institute of Biomedical and Health Sciences Hiroshima University, Hiroshima, Japan,
4Department of Cell Biology and Pharmacology, Faculty of Dental Science, Kyushu University, Fukuoka, Japan

Poster Session
P12-5  Histological analyses of neuropeptide mRNA expression in the central amygdala neurons projecting to the dorsolateral bed nucleus of the stria terminalis
Saya ARAKAKI, Keisuke SAKASAI, Natsuko HITORA-IMAMURA, Masabumi MINAMI
Department of Pharmacology, Graduate School of Pharmaceutical Sciences, Hokkaido University, Hokkaido, Japan

P12-6  Possible involvement of hippocampal leukemia inhibitory factor in the formation of stress adaptation in mice
Minoru TSUJI, Kazuhiro KUROKAWA, Kazuya MIYAGAWA, Atsumi MOCHIDA-SAITO, Hiroshi TAKEDA
Department of Pharmacology, School of Pharmacy, International University of Health and Welfare

P12-7  The increase in neuropeptide Y impairs social interaction through glutamate neurons in streptozotocin-induced diabetic mice
Daiki UEDA¹, Aimi YAMAGISHI¹, Naomi YONEUCHI¹, Junzo KAMEI², Hiroko IKEDA¹
¹Department of Pathophysiology and Therapeutics, Hoshi University, Tokyo, J anan,
²Department of Biomolecular Pharmacology, Hoshi University, Tokyo, Japan

Poster Session 13  October 11 (Fri), 13:40 - 15:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Childhood & Adolescent Disorders 1

P13-1  Withdraw

P13-2  Expert consensus for the pharmacotherapy of adult attention deficit hyperactivity disorder (ADHD) in Korea
Kyung Joon MIN, Hyunchan HWANG, Sol I. KIM, Han II. RYOO, Doug Hyun HAN, Sun Mi KIM
Department of Psychiatry, Chung-Ang University Hospital, Seoul, Korea

P13-3  Effects of Antidepressant Treatment on Clinical Measures of Attention in Adolescents with Depression
Chi-Hyun CHO¹, Jung LEE², Kyung Hwa LEE³, Soon-Beom HONG¹, Seong-Hae KIM¹, Ji-Youn HAN³, Jun Won KIM⁴,
Soo Chul CHO³, Jae-Won KIM⁴
¹Department of Psychiatry, SMG - SNU Boramae Medical Center,
²Pediatric Palliative Care Team, Integrative Care Hub, Seoul National University Children's Hospital,
³Division of Child and Adolescent Psychiatry, Department of Psychiatry, Seoul National University Hospital,
⁴Department of Psychiatry, Catholic University of Daegu School of Medicine, ⁵Department of Psychiatry, Armed Forces Capital Hospital

P13-4  The effect of Habit reversal treatment in children and adolescent with Tourette Disorder
Young Sook KWACK
Department of Psychiatry, Jeju National University

P13-5  The Risk of Hospitalization for Motor Vehicle Accident Injury in Narcolepsy and the Benefits of Stimulants Use
Tien-Yu CHEN¹-³, Wei-Chung MAO², Nian-Sheng TZENG², Cheryl Ch YANG², Terry Bj KUO³, Chi-Hsiang CHUNG⁴,
Wu-Chien CHIEN⁴
¹Department of Psychiatry, Tri-Service General Hospital, School of Medicine, National Defense Medical Center, Taipei, Taiwan,
²Department of Psychiatry, Cheng Hsin General Hospital, Taipei, Taiwan;
³Institute of brain science, National Yang-Ming University, Taipei, Taiwan,
⁴Department of Medical Research, Tri-Service General Hospital, National Defense Medical Center, Taipei, Taiwan

P13-6  Comparative study on suvorexant and antipsychotic drugs for delirium
Kazumaro OKINO¹-², Hirohisa SUZUKI¹-², Hiroto TOMIOKA¹-², Hiroki YAMADA¹-², Shinji NOZAKI¹-², Akira IWANAMI²,
Astuko INAMOTO¹-²
¹M ental Care Center, Showa University Northen Yokohama Hospital, Kanagawa, Japan,
²Department of Neuropsychiatry, Showa University School of Medicine

P13-7  Discontinuation rate of doxepin in insomnia disorder patients
Jong-Hyun JEONG, Ji-Hyeon LEE, Sung-Min KIM, Seung-Chul HONG, Ho-Jun SEO, Taekchol KIM
Department of Psychiatry, St. Vincent's Hospital, College of Medicine, The Catholic University of Korea
**Poster Session 14**

**October 12 (Sat), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)**

**Childhood & Adolescent Disorders 2**

**Chair:** Taku YAMAGUCHI (Department of Pharmacotherapeutics and Neuropsychopharmacology, Faculty of Pharmaceutical Sciences, Nagasaki International University, Japan)

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**P14-1**

Impaired neurogenesis in the dentate gyrus of adult ShatiKO mice

Bolati WULAER1,2, Kazuo KUNISAWA1, Willy Jaya SUENTO3,4, Tsubasa IIDA1, Aika KOSUGE1, Atsumi NITTA1, Akihiro MOURI1, Kumiaki SAITO1,2, Toshitaka NABESHIMA1

1Advanced Diagnostic System Research Laboratory, Fukuoka University Graduate School of Health Science, Fukuoka, Japan. 2Department of Disease Control and Prevention, Fukuoka University Graduate School of Health Science, Fukuoka, Japan. 3Department of Regulatory Science for Evaluation & Development of Pharmaceuticals & Devices, Fukuoka University Graduate School of Health Science, Fukuoka, Japan. 4Department of Pharmaceutical Therapy and Neuropharmacology, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan

**P14-2**

The effects of valproic acid for abnormal sleep rhythm in mice with partial defect of Srrm4

Miho TANAKA1,2,3, Yoshimi KAGA1,2, Yuhi YAMAGUCHI3, Masumi NAGAKI1

1Department of Neuropsychiatry, The University of Tokyo Hospital, 2Department of Developmental Disorders, National Institute of Mental Health, NCNP, 3Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science

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**Poster Session 15**

**October 13 (Sun), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)**

**Epilepsy**

**Chair:** Yukihiro OHNO (Department of Pharmacology, Osaka University of Pharmaceutical Sciences, Japan)

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**P15-1**

A disinhibitory nigra-parafascicular pathway amplifies seizure in temporal lobe epilepsy

Wenkai LIN1, Bin CHEN1, Yi WANG1, Cenglin XU1, Ying WANG1, Lijing CHEN1, Heming CHENG1, Lingyu XU1, Tingting HU1, Junli ZHAO1, Ping DONG1, Yi GUO1, Shihong ZHANG1, Shuang WANG2, Yudong ZHOU1, Weiwu HU1, Zhong CHEN1, 2

1Department of Pharmacology, Key Laboratory of Medical Neurobiology of the Ministry of Health of China, School of Basic Medical Sciences, College of Pharmaceutical Sciences, Zhejiang University, Hangzhou, China. 2Epilepsy Center, Department of Neurology, Second Affiliated Hospital, School of Medicine, Zhejiang University, Hangzhou, China

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**P15-2**

Nonconvulsive Status Epilepticus Manifesting as Catatonia or Stupor: A Systematic Review

Kamiyu OGUYI1,2, Shin KUROSE1, Masaru MIMURA1, Hironobu TAKEUCHI1

1Department of Neuropsychiatry, School of Medicine, Keio University, 2National Hospital Organization Shimofusa Psychiatric Medical Center
P15-3 Dentate gyrus newly-generated neurons prolong seizure maintenance in temporal lobe epilepsy
Living CHEN1, Yi WANG1, Cenglin XU1, Yingwei XU1, Ying WANG1, Heming HENG1, Fan FEI1, Zhong CHEN1,2
1Department of Pharmacology, Key Laboratory of Medical Neurobiology of the Ministry of Health of China, College of Pharmaceutical Sciences, Zhejiang University, Hangzhou, China; 2Epilepsy Center, Second Affiliated Hospital, School of Medicine, Zhejiang University, Hangzhou, China

P15-4 PHD finger protein 24 (Phf24)-null rats exhibit increased seizure sensitivity, emotional defects and cognitive impairment
Naofumi KUNISAWA1, Tadao SERIKAWA1,2, Saki SHIMIZU1, Masaki KATO1, Higor A IHA1, Masato KINBOSHI1, Hisao NISHIKAWA1, Yu SHIRAKAWA1, Masashi SASA1, Yukihiro OHNO1
1Department of Pharmacology, Osaka University of Pharmaceutical Sciences, Osaka, Japan; 2Institute of Laboratory Animals, Graduate School of Medicine, Kyoto University, Kyoto, Japan; 1KAC Co. Ltd, Kyoto, Japan; 1Nagisa Clinic, Osaka, Japan

P15-5 Effects of deep brain stimulation at the dorsal raphe on hippocampal kindling and kindled model of seizure in mice
Heming CHENG, Yi WANG, Zhong CHEN
Department of Pharmacology, Zhejiang University

P15-6 Establishment of a high-throughput drebrin immunocytochemical assay for NMDA receptor inhibition of new psychoactive substances
Toshinari MITSUOKA1, Kenji HANAMURA1, Noriko KOGANEZAWA1, Ruri KIKURA-HNAJIRI1, Tomoaki SHIRAO1, Yukihiro OHNO1
1Department of Pharmacology and Behavior, Gunma University Graduate School of Medicine, Gunma, Japan; 2Department of Pharmacognosy, Phytochemistry and Narcotics, National Institute of Health Sciences, Japan; 3Endowed Laboratory of Human Cell-Based Drug Discovery, Graduate School of Pharmaceutical Sciences, The University of Tokyo

Neurological Disorders
Chair: Kazuki NAGAYASU (Department of Molecular Pharmacology, Graduate School of Pharmaceutical Sciences, Kyoto University, Japan)

P16-1 Hippocampal neuronal excitability in dopamine deficient mice during hyperlocomotor activity caused by novel environment exposure
Masayo FUJITA1, Yukiko OCHIAI1,2, Taishi Clark TAKEDA1, Yoko HAGINO1, Kazuto KOBAYASHI1, Kazutaka IKEDA1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, 2Department of Neurology, Tokyo Metropolitan Neurological Hospital

P16-2 KCC2, a K⁺-Cl⁻ co-transporter, is a possible target to attenuate the neuronal dysfunction that is associated with radiation therapy for brain tumor
Kento IGARASHI1,2, Kazuo TOMITA1,2, Koh-ichi TANAKA1,2, Yoshikazu KUWAHARA1, Nobuyoshi NISHIYAMA1, Akhiro KURIMASA1, Tomoaki SATO1
1Lab. of Applied Pharmacology, Graduate school of medical and dental sciences, Kagoshima University, Kagoshima, Japan; 2Department of Pharmacology, School of Pharmacy, Hyogo University of Health Sciences, Kobe, Japan; 3Department of Radiation Biology and Medicine, Faculty of Medicine, Tohoku Medical and Pharmaceutical University, Sendai, Japan

P16-3 Analysis of the effects of serotonin related drugs on hyperlocomotion in dopamine-deficient mice
Yukiko OCHIAI1,2, Masayo FUJITA1, Yoko HAGINO1, Kazuto KOBAYASHI1, Ryoichi OKIYAMA1, Kazutaka IKEDA1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, 2Department of Neurology, Tokyo Metropolitan Neurological Hospital

P16-4 Functional roles of glutamate transporter in neurodevelopmental processes
Mizuki UCHIDA1, Erika OTA1, Akira YOSHIMI1, Shinji KITAGAKI2, Norio OZAKI3, Tomomi AIDA4, Kohichi TANAKA4, Yukihiro NODA1
1Division of Clinical Sciences and Neuropsychopharmacology, Faculty of Pharmacy, Meijo University, Nagoya, Japan; 2Department of Psychiatry, Nagoya University Graduate School of Medicine, Nagoya, Japan; 3Laboratory of Molecular Neuroscience, Medical Research Institute, Tokyo Medical and Dental University (TMD), Tokyo, Japan
P16-5 The deficit of quinolinic acid phosphoribosyltransferase induces hypolocomotion and cognitive impairment through impairment of dopaminergic neuronal function
Moe NIIJIMA1, Akihiro MOURI1-4, Tomoaki TESHIGAWARA2, Kazuo KUNISAWA1, Hisayoshi KUBOTA1, Mami HIRAKAWA1, Yuko MORI1, Masato HOSH1, Yasuko YAMAMOTO1, Toshitaka NABESHIMA1-4, Kuniaki SAITO1-4
1Department of Regulatory Science for Evaluation & Development of Pharmaceuticals & Devices, Fujita Health University Graduate School of Health Science, 2Department of Disease Control and Prevention, Fujita Health University Graduate School of Health Sciences, 3Advanced Diagnostic System Research Laboratory, Fujita Health University Graduate School of Health Sciences, 4Japanese Drug Organization of Appropriate Use and Research

P16-6 Dopaminergic modulation of α7 nicotinic acetylcholine receptor-mediated tremor in mice
Masaki KATO, Naofumi KUNISAWA, Saki SHIMIZU, Yuika ISHIKURA, Natsuki HIRATA, Mizuki YASUNAGA, Yukihiko OHNO
Dept. Pharmacol., Osaka Univ. Pharm. Sci., Osaka, Japan

P16-7 Involvement of region-specific glial dysfunction in rotenone neurotoxicity
Ikuko MIYAZAKI1, Masato ASANUMA1, Shinki MURAKAMI1, Ryo KIKUOKA1-2, Nami ISOOKA1, Chiharu SOGAWA1, Norio SOGAWA1-2, Yoshisisa KITAMURA1

Dementia 1

Poster Session 17 October 12 (Sat), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

P17-1 Effects of Dementia-Friendly Environment Project on Dementia Recognition and Changes in Attitude
Eunjeong LEE1, KwangHun LEE1, Kyung-Phil KWAK1-2
1Department of Psychiatry, college of medicine, Deongguk university, Korea, 2Provincial Dementia Center, Kyungsangbuk-do

P17-2 5-HT1A partial agonist tandospirone for behavioral and psychological symptoms in oldest-old patients with dementia in a specialized elderly nursing home
Shinichiro OCHI1, Aya SANTA2, Takaaki MORI1, Jun-ichi IGA1, Shu-ichi UENO1
1Department of Neuropsychiatry, Ehime University Graduate School of Medicine, Ehime, Japan, 2Nursing home Galilee

P17-3 Withdraw

P17-4 Systemic inflammation-induced memory disfunction is prevented by blockade either microglia activation or histone deacetylase
Naoki TAKADA, Yoki NAKAMURA, Kazue NAKASHIMA, Norimitsu MORIOKA
Department of Pharmacology, Graduate school of Biomedical & Health Sciences, Hiroshima University

P17-5 Ghrelin cascade changes in the peripheral blood of Japanese patients with Alzheimer’s disease
Junichi IGA, Yuta YOSHINO, Yu FUNAHASHI, Shunsuke NAKATA, Yuki OZAKI, Kiyohiro YAMAZAKI, Taku YOSHIDA, Takaaki MORI, Yoko MORI, Shinichiro OCHI, Shu-ichi UENO
Department of Neuropsychiatry, Molecules and Function, Ehime University Graduate School of Medicine

P17-6 Touchscreen-based tests detect cognitive impairment at an early stage in APP knock-in mice model
Md. Ali Bin SAIFULLAH1, Okiru KOMINE2, Akira SOBUE2, Koji YAMANAKA2, Hiroyuki MIZOGUCHI1
1Research Center for Next-Generation Drug Development, Research Institute of Environmental Medicine, Nagoya University, 2Department of Neuroscience and Pathology, Research Institute of Environmental Medicine, Nagoya University

Dementia 2

Poster Session 18 October 13 (Sun), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

P18-1 Amyloid-β plaque formation and reactive gliosis are required for induction of cognitive deficits in APP knock-in mouse models of Alzheimer’s disease
Yasufumi SAKAKIBARA1, Michiko SEKIYA1, Takashi SAITO2, Takaomi C. SAIDO1, Koichi M. IJIMA1
1Department of Alzheimer’s Disease Research, National Center for Geriatrics and Gerontology, Aichi, Japan, 2Laboratory of Proteolytic Neuroscience, RIKEN CBS, Saitama, Japan
P18-2  Induction of Alzheimer’s disease pathology by early life stress  
Tomoko TANAKA1, Shinobu HIRAI1, Masato HOSOKAWA2, Takashi SAITO1, Takaomi SAIDO3, Masato HASEGAWA2,  
Haruo OKADO1  
1Department of Brain Development and Neural Regeneration, Tokyo Metropolitan Institute of Medical Science,  
2Department of Dementia and Higher brain Function, Tokyo Metropolitan Institute of Medical Science,  
3Laboratory for Proteolytic Neuroscience, RIKEN Center for Brain Science

P18-3  The assessment of temporal changes in cognitive functions in App knock-in mouse models  
Daisuke JOHO1, Takeru SUZUKI1, Masaya FUJIIWARA1, Takashi SAITO1, Takaomi SAIDO3, Masaki KAKEMOTO1,2,4  
1Lab. of Environmental Brain Science, Graduate School of Human Sciences, Waseda University, Saitama, Japan,  
2Research Institute for Environmental Medical Sciences, Waseda University, Saitama, Japan,  
3Laboratory for Proteolytic Neuroscience, RIKEN Center for Brain Science, Saitama, Japan,  
4Lab. of Environmental Brain Science, Faculty of Human Sciences, Waseda University, Saitama, Japan

P18-4  Learning impairment of double transgenic mice Foxo3a deficit and α-synuclein overexpressed mice  
Wang FAN1, Kyohei YAMADA1, Kysuke UNO1,2, Hiroshi MARUYAMA2, Noboru MOTOYAMA2, Wakako MARUYAMA1,  
Atsumi NITTA1  
1Department of pharmaceutical Therapy and Neuropharmacology, Faculty of Pharmaceutical Sciences, Graduate School and Pharmaceutical Sciences, University of Toyama, Toyama, Japan,  
2Department of Health and Nutrition, Faculty of Psychological & Physical Science Aichi Gakuin University, Aichi, Japan,  
3Laboratory of Biochemistry, Department of Human Nutrition, Sugiyama Jogakuen University, Aichi, Japan

P18-5  Establishment of a decision-making task in mice  
Takeru SUZUKI1, Daisuke JOHO1, Masaki KAKEMOTO1,2,3  
1Lab. of Environmental Brain Science, Graduate School of Human Sciences, Waseda University, Saitama, Japan,  
2Research Institute for Environmental Medical Sciences, Waseda University, Saitama, Japan,  
3Lab. of Environmental Brain Science, Faculty of Human Sciences, Waseda University, Saitama, Japan

P18-6  Pharmacokinetic properties and brain penetration of ferulic acid in rats  
Tomoka HATTORI1, Haruka SAHASHI1, Kouki HARA1, Haruka SHIMODA1, Yuuna SADAKA1, Midori SODA1,  
Hironao NAKAYAMA2, Hiroaki MURASE2, Kiyoshi KITAICHI1  
1Lab. of Pharmaceutics, Department of Biomedical Pharmaceutics, Gifu Pharmaceutical University, Gifu, Japan,  
2Department of Pharmaceutical Sciences, University of Seta, Okayama, Japan,  
3Department of Biomedical Pharmaceutics, Faculty of Pharmaceutical Sciences, University of Seta, Okayama, Japan

P18-7  A role of Shati/Nat8l in the medial prefrontal cortex on cognitive function in mice  
Katsunori AZUMA1, Mertem HADDAR1, Kysuke UNO1, Shim-ichi MURAMATSU1,4, Atsumi NITTA1  
1Department of Pharmaceutical Therapy and Neuropharmacology, Faculty of Pharmaceutical Sciences, Graduate School of Medicine and Pharmaceutical Sciences, University of Toyama, Toyama, Japan,  
2Laboratory of molecular pharmacology, Department of Pharmaceutical Sciences, University of Seta, Okayama, Japan,  
3Division of Neurology, Department of Medicine, Jichi Medical University, Shimotsuke, Japan,  
4Center for Gene and Cell Therapy, The Institute of Medical Science, The University of Tokyo, Tokyo, Japan

P19-1  OX2 receptors mediate orexin-A-induced inhibition of KCl-induced increase in intracellular calcium ion levels in neurons derived from dorsal root ganglion of rats with sciatic nerve ligation  
Tadashi SAIGUSA1, Yuri AONO1, Manabu ISHIKAWA2, Masata SADAKA1, Midori SODA1,  
1Department of Pharmacology, Nihon University School of Dentistry at Matsudo, Chiba, Japan,  
2Department of Anesthesiology, Nihon University School of Dentistry at Matsudo, Chiba, Japan

P19-2  Investigation of neuropathic allodynia with sensory and emotional components using an optogenetic approach  
Makoto TSUDA1, Ryooichi TASHIMA1, Keisuke KOGA1, Hiroshi YAMO2, Hidemasa FURUE1  
1Department of Life Innovation, Graduate School of Pharmaceutical Sciences, Kyushu University, Fukuoka, Japan,  
2Department of Developmental Biology and Neuroscience, Tohoku University Graduate School of Life Sciences, Miyagi, Japan

P19-3  Role of noradrenaline and serotonin in mice with acute or chronic pruritus  
Yu MIYAHARA, Hideki FUNAHASHI, Ayaka HARUTA-TSUKAMOTO, Kosuke EBIBARA, Toshikazu NISHIMORI,  
Yasushi ISHIDA  
Department of Psychiatry, Faculty of Medicine, University of Miyazaki, Miyazaki, Japan
P19-4 Chronic pain-induced plastic change in the extended amygdala neural circuit causes maladaptive anxiety
Naoki YAMAUCHI, Hiroshi NOMURA, Taiju AMANO, Masabumi MINAMI
Department of Pharmacology, Graduate School of Pharmaceutical Sciences, Hokkaido University

P19-5 Antidepressant effects of resolvin D1 and resolvin D2 in chronic pain model mice
Hiroe SUZUKI, Natsuko HITORA-IMAMURA, Masabumi MINAMI
Department of Pharmacology, Graduate School of Pharmaceutical Sciences, Hokkaido University

P19-6 Paeanol inhibits pruritogen-induced scratching behavior in mice
Yu-Ting CHU1, Sih-Ting LUO1, Hsin-Yi CHUNG1, Iona MACDONALD1, Jaung-Geng LIN2, Tsung-Jung HO3, 4, Pet-Hsuan SHEN3, Hi-Hung CHEN1
1Graduate Institute of Acupuncture Science, China Medical University, Taichung, Taiwan,
2School of Chinese Medicine, China Medical University, Taichung, Taiwan.,
3Department of Chinese Medicine, Hualien Tzu Chi Hospital, Hualien, Taiwan.,
4School of Post-Baccalaureate Chinese Medicine, Tzu Chi University, Hualien, Taiwan,
5Division of Chinese Medicine, An Nan Hospital, China Medical University, Taichung, Taiwan

P19-7 Activation of δ1 and δ2 receptors enhance dopamine efflux in the nucleus accumbens of freely moving rats through neural mechanisms involving different combinations of GABA receptor subtypes
Yuri AONO1, Yuriko WATANABE2, Tadashi SAIGUSA1
1Department of Pharmacology, Nihon University School of Dentistry at Matsudo, Chiba, Japan,
2Department of Oral Surgery, Nihon University School of Dentistry at Matsudo, Chiba, Japan

P20-1 Associations between genetic polymorphisms on chromosome 14q32 and effects of opioid analgesics and chronic pain
Yoshihiko KOSAKI1, 2, Daisuke NISHIZAWA1, Hideko ARITA1, Kazuo HANAOKA1, Choku YAJIMA1, Masako ISEKI1, Jitsu KATO1, Setsuro OGAWA1, Ayako HIRANUMA1,2, Shinya KASAI1, Junko HASEGAWA1, Kyoko NAKAYAMA1, Yuko EBATA1, Yoshihiko KOUKIT1, Tatsuya ICHINOHE1, Masakazu HAYASHIDA1, 2-4, Ken-ichi FUKUDA1, Kazutaka IKEDA1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan,
3Department of Anesthesiology and Pain Relief Center, J R Tokyo General Hospital, Tokyo, Japan,
4Department of Anesthesiology & Pain Medicine, Juntendo University School of Medicine, Tokyo, Japan,
5Department of Anesthesiology, Nihon University School of Medicine, Tokyo, Japan,
6Department of Anesthesiology, Nihon University University Research Center, Tokyo, Japan,
7Department of Surgery, Toho University Sakura Medical Center, Sakura, Japan,
8Department of Anesthesiology, Saitama Medical University International Medical Center, Hidaka, Japan,
9Department of Oral Health and Clinical Science, Tokyo Dental College, Tokyo, Japan

P20-2 Association of a candidate locus for human opioid sensitivity identified in a genome-wide association study in patients undergoing laparoscopic-assisted colectomy with postoperative opioid requirements in patients undergoing painful cosmetic surgery
Rie INOUE1, 2, Daisuke NISHIZAWA1, Junko HASEGAWA1, Kyoko NAKAYAMA1, Ken-ichi FUKUDA1, Hiroyuki SUMIKURA2, Masakazu HAYASHIDA1, 2-4, Kazutaka IKEDA1
1Addictive Substance Project, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan,
3Department of Anesthesiology and Pain Relief Center, J R Tokyo General Hospital, Tokyo, Japan,
4Department of Anesthesiology & Pain Medicine, Juntendo University School of Medicine, Tokyo, Japan,
5Department of Oral Health & Clinical Science, Tokyo Dental College, Tokyo, Japan,
6Department of Anesthesiology, Nihon University School of Medicine, Tokyo, Japan,
7Department of Anesthesiology, Nihon University University Research Center, Tokyo, Japan,
8Department of Surgery, Toho University Sakura Medical Center, Sakura, Japan,
9Department of Anesthesiology, Saitama Medical University International Medical Center, Hidaka, Japan

P20-3 Association between a protease-activated receptor 2 gene polymorphism and cold water immersion-induced pain sensitivity
Moe SOEDA1, 2, Seii OHKA1, Daisuke NISHIZAWA1, Manabu SUNO1, Ken-ichi FUKUDA2, Tatsuya ICHINOHE1, Kazutaka IKEDA4
1Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of Oral Health and Clinical Science, Tokyo Dental College, Tokyo, Japan,
3Graduate School of Medicine Dentistry and Pharmaceutical science, Okayama University, Okayama, Japan,
4Department of Dental Anesthesiology, Tokyo Dental College, Tokyo, Japan

P20-4 The development of a percutaneously absorbable preparation of oxycodone
Hidetoshi TAGE, Haruka SHIMODA, Aoi GOSHIMA, Suguru ITO, Midori SODA, Kiyoyuki KITAICHI
Lab. of Pharmaceutics, Department of Biomedical Pharmaceutics, Gifu Pharmaceutical University, Gifu, Japan
P20-5  Paclitaxel, an anti-cancer drug, causes extracellular release of HMGB1, a pro-inflammatory and pro-nociceptive mediator, in Schwann cells derived from neonatal rat sciatic nerves
Fumiko SEKIGUCHI, Rika YAMASHITA, Hiroki YASUI, Atsufumi KAWABATA
Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University

P20-6  Endogenous thrombin plays a preventive role against oxaliplatin-induced peripheral neuropathy: involvement of thrombomodulin-dependent inactivation of HMGB1 by thrombin
Maho TSUBOTA1, Ryotaro FUKUDA1, Yusuke HAYASHI1, Takaya MIYAZAKI1, ShinUEDA1, Masahiro NISHIBORI2, Atsufumi KAWABATA1
1Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University, Osaka, Japan; 2Department of Pharmacology, Osaka University Graduate School of Medicine, Osaka, Japan

P20-7  Involvement of HMGB1 in bortezomib-induced peripheral neuropathy in mice
Yuya IKEDA1, Takaya MIYAZAKI1, Maho TSUBOTA1, Shiori TOMITA1, Fumiko SEKIGUCHI1, Masahiro NISHIBORI2, Atsufumi KAWABATA1
1Laboratory of Pharmacology and Pathophysiology, Faculty of Pharmacy, Kindai University, Osaka, Japan; 2Department of Pharmacology, Osaka University Graduate School of Medicine, Osaka, Japan

P21-1  Reduced Awareness of Surroundings Is the Most Central Domain in the Network Structure of Posttraumatic Stress Disorder Symptoms
Seon-Cheol PARK1, Jinseon KIM1, Daeho KIM1
1Department of Psychiatry, Inje University College of Medicine, Seoul, South Korea

P21-2  Ifenprodil tartrate treatment of adolescents with Post-Traumatic Stress Disorder: a double-blind, placebo-controlled trial
Tsuyoshi SAKAI1,2, Kenji HASHIMOTO1, Yutaka HOSODA1,2, Yasunori ODA1, Tomihisa NIITSU1, Yuko FUJITA1, Youhei KAWASAKI1, Nobuhiro KANAHARA1, Akhiro SHIINA1, Tasuku HASHIMOTO1, Masaomi IYO1,2,3
1Department of Child Psychiatry, Chiba University Hospital, 2Department of Psychiatry, Graduate School of Medicine, Chiba University, 3Chiba University Center for Forensic Mental Health, Chiba University Hospital

P21-3  Improvement of PTSD-like Behavior by the Forgetting Effect of Hippocampal Neurogenesis Enhancer Memantine in a Social Defeat Stress Paradigm
Rie ISHIKAWA1, Chiaki UCHIDA1, Shiho KITAOKA2, Tomoyuki FURUYASHIKI1, Satoshi KIDA1,3
1Department of bioscience, Tokyo University of Agriculture, Tokyo, Japan; 2Division of Pharmacology, Kobe University Graduate School of Medicine, Hyogo, Japan; 3Graduate School of Agriculture and Life Sciences, The University of Tokyo, Tokyo, Japan

P21-4  Mechanisms through the anticholinergic drug trihexyphenidyl reduces PTSD flashbacks and nightmares; The third report
Katsusama SOGO, Masanobu SOGO, Yoshie OKAWA
SOGO PTSD INSTITUTE in sogo clinic, Hiroshima, Japan

P21-5  Social support moderates association between posttraumatic growth and trauma-related psychopathologies among victims of the Sewol Ferry Disaster
Young-Hoon KO1, Kyu-Man HAN2
1Department of Psychiatry, Korea University Ansan Hospital, Korea University College of Medicine, Ansan, Korea; 2Department of Psychiatry, Korea University Anam Hospital, Korea University College of Medicine, Seoul, Korea

P21-6  Effects of processing conditions on plasma L-glutamate levels in non-psychiatric healthy subjects
Shinya WATANABE, Hidehiro UMEHARA, Yukiko TOMIOKA, Makoto KINOSHITA, Masahito NAKATAKI, Shusuke NUMATA, Tetsuro OHMORI
Department of Psychiatry, Institute of Biomedical Science, Tokushima University Graduate School
P22-1 Real-world effectiveness of antipsychotic monotherapy and polytherapy in 1543 patients with acute-phase schizophrenia

Kotaro HATTA1, Hana HASEGAWA1, Atsushi IMAI1, Yasuhiko SUDO1, Fumiyoshi MORIKAWA1, Shigemasa KATAYAMA1, Hanao WATANABE1, Takuya ISHIZUKA1, Mitsuru NAKAMURA1, Fuminari MISAWA1, Kiyoshi FUJITA1, Shigeru OZAKI1, Kentaro UMEDA1, Hiroyuki NAKAMURA1, Yutaka SAWA2, Naoya SUGIYAMA2

1Department of Psychiatry, Juntendo University Nerima Hospital, Tokyo, Japan, 2Department of Psychiatry, Tokyo Metropolitan Matsuwa Hospital, Tokyo, Japan.

P22-2 Replacement with the optimal antipsychotics for dopamine supersensitivity (ROADS) study: A multicenter, randomized, assessor-blinded, active-control trial of blonanserin in patients with dopamine supersensitivity psychosis

Tomihisa NIITSU1, Tatsuki HATA1, Masahiko NISHIMOTO1, Yutaka HOSODA1, Ryota SEKI1, Atsushi KIMURA1, Yutaka HOSODA1, Masato ISHIKAWA1, Nobuhiro KANAHARA1, Masami IYO1,2,3 - THE ROADS STUDY GROUP1

1Department of Psychiatry, Chiba University Graduate School of Medicine, Chiba, Japan, 2Fujita Hospital, Sosa, Chiba, Japan, 3Soshu Hospital, Atsugi, Kanagawa, Japan.

P22-3 Potential Link between T102C Polymorphism in the Serotonin Receptors (5-HT2A) Gene and Treatment Response of Risperidone on Schizophrenia

Saidah SYAMSUDDIN, Faisal IDRUS, Andi Fatimah YUNIASARI, Andi Jayalangkara TANRA, Sonny Teddy LISAL

University of Hasanuddin

P22-4 Comparison of maintenance rate of two long-acting injectable antipsychotics (paliperidone palmitate and aripiprazole once-monthly) in schizophrenia

Saeheon JANG

Department of psychiatry, Bongseng Memorial Hospital

P22-5 Switching antipsychotics to blonanserin in patients with schizophrenia: an open-label, prospective, multicenter study

Won-Myong BAHK1, Young Sup WOO1, Bo-Hyun YOON1, Bong-Hee JEON2, Jeong Seok SEO3, Beomwoo NAM3, Sang-Yesol LEE3, Young-Myo JAE3, Sae-Heon JANG1, Hun Jeong EUN1, Seung-Hee WON1, Kwanghun LEE1, Jonghun LEE3, Moon-Do KIM1,2,3 - Department of Psychiatry, College of Medicine, The Catholic University of Korea, Seoul.

P22-6 Clinical Global Impression of Severity after aripiprazole once-monthly versus paliperidone palmitate once-monthly and the effects observed in patients with schizophrenia stratified by disease severity: a post-hoc analysis of QUALIFY

Ross BAKER1, Simon Nitschky SCHMIDT1, Pedro SUCH1, Peter HERTEL1, Jessica MADERA1

1Otsuka Pharmaceutical Development & Commercialization, Inc., Princeton, USA, 2H. Lundbeck A/S, Valby, Denmark

P22-7 Effects of Aripiprazole Once-Monthly on Patient Reported Outcomes in Patients With Schizophrenia: A Mirror Study

Ross BAKER1, Cathy ZHAO1, Anna ERAMO2, Timothy PETERS-STRICKLAND1, Robert MCQUADE1

1Otsuka Pharmaceutical Development & Commercialization, Inc., Princeton, USA, 2H. Lundbeck A/S, Valby, Denmark
23 October 12 (Sat), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Chair: Chieh-Hsin LIN (Kaohsiung Chang Gung Memorial Hospital, Taiwan)

**P23-1** Early improvement of PANSS items in patients with schizophrenia treated with brexpiprazole: a post hoc analysis of three randomized studies
Catherine WEISS1, Stine Rasmussen MEEHAN2, John OUYANG3, Mary HOBART1
1Department of Medical Affairs, Otsuka Pharmaceutical Development & Commercialization Inc.,
2Department of Medical Affairs Psychiatry, H. Lundbeck A/S,
3Department of Biostatistics, Otsuka Pharmaceutical Development & Commercialization Inc.

**P23-2** Symptomatic and functional response to brexpiprazole treatment in patients with acute schizophrenia by age
Catherine WEISS1, Erin MACKENZIE2, Francois THERRIEN3, Peter ZHANG4, Stine Rasmussen MEEHAN5
1Department of Medical Affairs, Otsuka Pharmaceutical Development & Commercialization Inc.,
2Department of Medical Affairs Psychiatry, H. Lundbeck A/S,
3Department of Medical Affairs, Otsuka Pharmaceutical Development & Commercialization Inc.,
4Department of Biostatistics, Otsuka Pharmaceutical Development & Commercialization Inc.,
5Department of Medical Affairs Psychiatry, H. Lundbeck A/S

**P23-3** Efficacy and Safety of Lurasidone in Acutely Psychotic Patients with Schizophrenia: A 6-Week, Randomized, Double-Blind, Placebo-Controlled Phase 3 Study (JEWEL Study)
Kentaro TAKAI1, Masaomi IYO2, Jun ISHIGOOKA3, Masatoshi NAKAMURA1, Reiko SAKAGUCHI1, Keisuke OKAMOTO1, Tenuhiko HIGUCHI1
1Department of Medical Affairs, Otsuka Pharmaceutical Development & Commercialization Inc.,
2Chiba University Graduate School of Medicine, Japan,
3Institute of CNS Pharmacology, Japan

**P23-4** The Attitude of Schizophrenic Patients Towards Antipsychotic Long-Acting Injections
Nan-Ying CHIU1, 2, Cheng-Ju CHANG1, Jeng-Fang LIN1, Lin-Chi CHIU1, Wen-Yu HSU2, Ting-Gang CHANG2, Tzu-Yun YANG2
1Department of Psychiatry, Evergreen Campus, Lugang Christian Hospital,
2Department of Psychiatry, Changhua Christian Hospital, Changhua, Taiwan

**P23-5** Gabapentin enacarbil for antipsychotic induced akathisia in schizophrenia patients: A pilot open-labeled study
Masahiro TAKESHIMA, Kazuo MISHIMA
Department of Neuropsychiatry, Akita University Graduate School of Medicine

**P23-6** Efficacy and side effect of Pyridoxamine for patients with schizophrenia
Mitsuhito MIYASHITA, Kazuya TORIUMI, Kazuhiro SUZUKI, Yasue HORIUCHI, Akane YOSHIKAWA, Akiko KOBORI, Masanari ITOKAWA, Makoto ARAI
Project for Schizophrenia Research, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan

**P23-7** Are "ALL" of neurological symptoms with schizophrenia induced by antipsychotics? –Possibility of Niemann–Pick disease type C–
Kumiko FUJII1, Masamitsu MAEKAWA2, Juji OZeki1, Yoshikatsu ETO3, Takahiro SAITO4, Masataka SHINOZAKI1, Yosefu ARIME5, Takahide NAGASHIMA1, Hiroaki OKAYASU1, Kazutaka SHIMODA1
1Department of Psychiatry, Dokkyo Medical University School of Medicine, 2Pharmaceutical Sciences, Tohoku University Hospital, 3Department of Psychiatry, Shiga University of Medical Science, 4Advanced Clinical Research Center, Institute for Neurological Disorders, 5Yokohama Camellia Hospital, Japan

24 October 13 (Sun), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Chair: Mitsuhiro MIYASHITA (Project for Schizophrenia Research, Tokyo Metropolitan Institute of Medical Science, Japan)

**P24-1** Withdraw
**P24-2** Dissociation in Pharmacokinetic Attenuation between Central Dopamine D2, Receptor Occupancy and Peripheral Blood Concentration of Antipsychotics: A Systematic Review

Shin KUROSE1, Yu MIMURA1, Hiroyuki UCHIDA1, Keisuke TAKAHATA2, Euitae KIM3, Takefumi SUZUKI4, Masaru MIMURA1, Hiroyoshi TAKEUCHI1

1Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan, 2Department of Functional Brain Imaging Research, National Institute of Radiological Sciences, Chiba, Japan, 3Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea, 4Department of Neuropsychiatry, Faculty of Medicine, University of Yamanashi, Yamanashi, Japan

**P24-3** Antipsychotic Treatment for Schizophrenia in the Maintenance Phase: An Updated Systematic Review of the Guidelines and Algorithms

Yutaro SHIMOMURA1, Yuhei KIKUCHI1, Takefumi SUZUKI3, Hiroyuki UCHIDA1, 2, Masaru MIMURA1, Hiroyoshi TAKEUCHI1, 4

1Keio University, School of Medicine, Department of Neuropsychiatry, Tokyo, Japan, 2Centre for Addiction and Mental Health, Geriatric Mental Health Program, Toronto, Canada, 3Department of Neuropsychiatry, Faculty of Medicine, University of Yamanashi, Yamanashi, Japan, 4Centre for Addiction and Mental Health, Toronto, Canada

**P24-4** Withdraw

**P24-5** Paliperidone Induced Dose-Dependent Sialorrhea with Biperiden Treatment

Ji-Yu LIN, Pei-Chuan WU

Department of Psychiatry, Far Eastern Memorial Hospital, Taiwan

**P24-6** Dystonia After Use Drug Atypical Antipsychotic

Innawati JUSUP1, Irena Aryani PUSPOWARDOJO2

1Psychiatric Department, Faculty of Medicine, Diponegoro University, 2Faculty of Medicine, Diponegoro University

**P24-7** The Medication Satisfaction of Schizophrenic Patients

Nan-Ying CHIU1, 2, Shu-Hui HU1, Cheng-Ju CHANG1, Ting-Gang CHANG2, Wen-Yu HSU2

1Department of Psychiatry, Evergreen Campus, Lugang Christian Hospital, 2Department of Psychiatry, Changhua Christian Hospital, Changhua City, Taiwan

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**Poster Session 25**

**October 11 (Fri), 13:40 - 15:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)**

**Schizophrenia 4**

Chair: Hajime Baba (Department of Psychiatry & Behavioral Science, Juntendo Graduate School of Medicine, Japan)

**P25-1** Sleep Quality Is Poorly Associated with Metabolic Syndrome in Chronic Schizophrenic Inpatients

Ha-Ran JEONG, Yu-Ran JEONG, Su-Hee PARK, Hyun-Ju YUN, Young-Hwa SEA, Hangoenbi KANG

Department of Psychiatry, Naju National Hospital

**P25-2** Prescription trend of benzodiazepines in schizophrenia patients

Junji UNO

O’kehazama Hospital Fujita Kokoro Care Center

**P25-3** Comparative Study of Heart Rate Variability and Emotional Response to Positive and Negative Audiovisual Stimulation in Patients with Chronic Schizophrenia and Healthy Control

Jeongwan HONG1, Sang-Yeol LEE2

1Iksan Hospital, 2Wonkwang University School of Medicine and Hospital

**P25-4** Korean Medication Algorithm for Schizophrenia 2019: Third Revision

Jungsuk LEE1, Beomwoo NAM2, Chan-Hyung KIM3

1Department of Psychiatry, National Health Insurance Service Ilsan Hospital, Goyang, Korea, 2Department of Psychiatry, Konkuk University School of Medicine, Chungju, Korea, 3Institute of Behavioral Science in Medicine and Department of Psychiatry, Yonsei University College of Medicine, Seoul, Korea

**P25-5** Difference in executive function among with patients with schizophrenia, their first-degree relatives and healthy subjects

Yuzuru KATAOKA1, Kazutaka OHI1, 2, Takamitsu SHIMADA1, Hiroaki OKUBO1, Takashi UEHARA1, Yasuhiro KAWASAKI1

1Department of Neuropsychiatry, Kanazawa Medical University, Ishikawa, Japan, 2Medical Research Institute, Kanazawa Medical University, Ishikawa, Japan
P25-6 Impaired social functions in patients with schizophrenia and their first-degree relatives
Takamitsu SHIMADA1,2, Kazutaka OHI1,3, Yuzuru KATAOKA1, Yoko KOIDE1, Hiroaki OKUBO1, Takashi UEHARA1, Yasuhiro KAWASAKI1
1Department of Neuropsychiatry, Kanazawa Medical University, Ishikawa, Japan; 2Okabe Hospital, Ishikawa, Japan; 3Department of Medical Research Institute, Kanazawa Medical University, Ishikawa, Japan

P25-7 Atypical antipsychotic-induced metabolic adverse effects in psychiatric patients: cross-sectional study
Young-Min PARK
Department of Psychiatry, Inje University College of Medicine

Poster Session 26
October 12 (Sat), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Schizophrenia 5
Chair: Erlyn LI MOA (Department of Psychiatry, Faculty of Medicine, Universitas Hasanuddin, Indonesia)

P26-1 Impact of social defeat stress on DNA methylation of DRD2, NR3C1 and STMN-1 genes in STMN1-
wild type and -knock-out mice
Young-Eun OH1,2, Vishwanath Vasudev PRABHU1,2, Thong Ba NGUYEN1,2, Fatimazahra RAMI1,2, Young-Chul CHUNG1,2
1Department of Psychiatry, Chonbuk National University Medical School, Jeonju, South Korea, 2Research Institute of Clinical Medicine of Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, South Korea

P26-2 Chronic mild exercise at juvenile stage attenuates abnormal behavior in prenatal phencyclidine-
treatment induced schizophrenia mice model
Hikaru KOIZUMI1, Kaoru AICHI1, Akihiro MOURI1,6, Toshitaka NABEShIMA1,6, Hideaki SOYA1,2
1Department of Exercise Biochemistry and Neuroendocrinology, Faculty of Health and Sport Sciences, University of Tsukuba, Japan, 2Department of Sports Neuroscience, Advanced Research Initiative for Human High Performance (ARiH Pi), Faculty of Health and Sport Sciences, University of Tsukuba, The Japan Society for the Promotion of Science, 3Department of Regulatory Science for Evaluation and Development of Pharmaceuticals and Devices, Graduate School of Health Sciences, Fujita Health University, Aichi, Japan, 4Japanese Drug Organization of Appropriate Use and Research, Nagoya, Japan, 5Advanced Diagnostic System Research Laboratory, Graduate School of Health Sciences, Fujita Health University, Aichi, Japan

P26-3 Multimodal neuroplastic mechanisms of lurasidone treatment in the chronic mild stress model
Marco Andrea RIVA1, Paolo BRIVIO1, Giulia SBRINI1, Maria Serena PALADINIF, Vittoria SPERO2, Mariusz PAPP3, Rafaela MOLTENI1, Francesca CALABRESE1
1Department of pharmacological and biomolecular sciences, University of Milan, 2Department of Medical Biotechnologies and Translational Medicine, University of Milan, 3Institute of Pharmacology, Polish Academy of Sciences, Krakow

P26-4 Deficiency of kynurenine 3-monooxygenase increases vulnerability to the PCP-induced behavioral
abnormalities
Hisayoshi KUBOTA1, Akihiro MOURI1, Kazuo KUNISAWA1, Moe NIJIMA1, Mami HIRAKAWA1, Yuko MORF1, Yasuko YAMAMOTO1, Toshitaka NABEShIMA1, Kuniaki SAITO2,3
1Department of Regulatory Science for Evaluation & Development of Pharmaceuticals & Devices, Fujita Health University Graduate School of Health Science, Aichi, Japan, 2Department of Disease Control and Prevention, Fujita Health University Graduate School of Health Science, Aichi, Japan, 3Department of Psychiatry, Fujita Health University Graduate School of Health Science, Aichi, Japan

P26-5 Schizophrenia-like symptoms in the offspring of methylazoxymethanol-treated mice
Kohhei TAKAHASHI1,2, Osamu NAKAGAWASA1, Wakana SAKUMA1, Wataru NEMOTO1, Takayuki ODaira1, Jia-Rong LIN1, Hiroshi ONOGI1, Lalit K. SRIvASTAVAb, Minoru TSUJIF, Hiroshi TAKEDA1, Koichi TAN-NO1
1Department of Pharmacology, Faculty of Pharmaceutical Sciences, Tohoku Medical and Pharmaceutical University, Miyagi, Japan, 2Department of Pharmacology, School of Pharmacy, International University of Health and Welfare, Tochigi, Japan

P26-6 Vitamin B6-deficient animal model for schizophrenia with carbonyl stress
Kazuya TORIUMI1, Kazuhiro SUZUKI1,2, Mai ASAKURA1, Mitsuhiro MIYASHITA1, Yasue HORIUCHI1, Akiko KOBORI1, Masanari ITOKAWA1, Makoto ARAI1
1Schizophrenia Research Project, Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan, 2Department of Psychiatry, Shinshu University School of Medicine
P26-7 PACAP Increases Functional Synapses In The Primary Hippocampal Neurons
Atsuko HAYATA1,2, Harui KIJIMA2, Yusuke SHINTANI2, Takanobu NAKAZAWA2,3, Hitoshi HASHIMOTO1,2,4,5
1Molecular Research Center for Children’s Mental Development, United Graduate School of Child Development, Osaka University, Kanazawa University, Hamamatsu University School of Medicine, Chiba University and University of Fukui,
2Laboratory of Molecular Neuropharmacology, Graduate School of Pharmaceutical Sciences, Osaka University,
3Department of Pharmacology, Graduate School of Dentistry, Osaka University, 4Institute for Datability Science, Osaka University,
5Transdisciplinary Life Imaging Division, Institute for Open and Transdisciplinary Research Initiatives, Osaka University

Poster Session
October 13 (Sun), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)

Schizophrenia 6
Chair: Kazuya TORIUMI (Department of Psychiatry and Behavioral Sciences, Tokyo Metropolitan Institute of Medical Science, Japan)

P27-1 A novel schizophrenia animal model-down regulation of a Piccolo in the medial prefrontal cortex -
Atsumi NITTA1, Kohei HAMATANI1, Ryo INAGAKI1, Kequan FU1, Yuki OKETANOF, Kenji SATO2, Youta TORII2,
Chikako HABUCHI2, Sekiguchi HIROTAKA2, Shuji IRITANIF, Norio OZAKIF, Shin-ichi MURAMATSUG, Yoshiaki MIYAMOTOG
1Dept of Pharmaceutical Thera and Neuropharmacol, Fac of Pharmaceutical Sci. Grad Sch of Med and Pharm Sci.University of Toyama, Toyama, Japan, 2Department of Psychiatry, Graduate School of Medicine, Nagoya University, Nagoya, Japan, 3Division of Neurological Gene Therapy, Open Innovation Center, Jichi Medical University, Shimotuke, Japan

P27-2 Transcriptional immaturity inducible by neural hyperexcitation is shared by multiple neuropsychiatric disorders
Tomovuki MURANO, Hideo HAGIHARA, Tsuyoshi MIYAKAWA
Division of Systems Medical Science, Institute for Comprehensive Medical Science, Fujita Health University

P27-3 Neuroplastic Changes Following Chronic Treatment with The Antipsychotic Blonanserin in Rats: Implications for Schizophrenia
Marco Andrea RIVA1, Francesca MARCHISSELLA2, Maria Serena PALADINF, Veronica BENVION2, Vittoria SPERO2,
Francesca CALABRESE1, Raffaella MOLTENI1
1Department of pharmacological and biomolecular sciences, University of Milan, 2Department of Medical Biotechnologies and Translational Medicine, University of Milan

P27-4 Recovery of social behavior and GABAergic interneuron density change induced by interneuron genetic antipsychotic in the maternal immune activation model of schizophrenia
Watara UKA1, Yoshiyasu KIGAWA1, Eri HASHIMOTO2, Kenta DERIHA1, Hanako HASHIGUCHI1, Emi NISHIMURA1,
Masaya TAYAMA1,2, Kengo FURUSE1, Takao ISHIH1, Marco A. RIVA3, Chiaki KAWANISHI1
1Department of Neuropsychiatry, School of Medicine, Sapporo Medical University, Sapporo, Japan, 2Psychiatry Institute, Hokujinkai Medical Corporation, Sapporo Japan, 3Department of Pharmacological Sciences, University of Milano, Milan, Italy

P27-5 Altered DNA methylation signatures in patients with first episode psychosis
Yanhong PIAO1, Young-Eun OH1, Fatima Zahra RAMI1, Chul Chung YOUNG1,3
1Department of Psychiatry, Chonbuk National University Hospital, Jeonju, Korea, 2Department of Medical Science, Chonbuk National University, Jeonju, Korea, 3Research Institute of Clinical Medicine of Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, Korea

P27-6 An Overview Of The Genetic Influence Of Schizophrenic Patients Treated At The Lakipadada Hospital
Kristanty Randa ARUNG1, Andi Jayalangkara TANRA2, Syafari Daniel MANGOPO1
1RSU Lakipadada, 2Hasanuddin University

P27-7 Withdraw

Junhee LEE1, Youngwoo Bryan YOON2, Kang Ik Kevin CHO1, Seongho SEO3, Jae Sung LEE4, Jae Min JEONG4, Minah KIM4, Tae Young LEE5, Jun Soo KWON1, 6
1Department of Psychiatry, Seoul National University College of Medicine, Seoul, Korea,
2Department of Psychiatry, Washington University in St. Louis, MO, USA,
3Psychiatry Neuroimaging Laboratory, Harvard Medical School, MA, USA,
4Department of Neuroscience, Gachon University College of Medicine, Incheon, Korea,
5Department of Nuclear Medicine, Seoul National University College of Medicine, Seoul, Korea,
6Department of Brain and Cognitive Sciences, Seoul National University College of Natural Sciences, Seoul, Korea

P28-2 Glutamatergic Neurmetabolite Levels in Patients with Severe Treatment-Resistant Schizophrenia: A Cross-Sectional 3T Proton Magnetic Resonance Spectroscopy Study

Ryosuke TARUMI1, 2, Sakiko TSUGAWA1, Yoshihiro NODA1, Pitman ERIC3, 4, Shiori HONDA1, Karin MATSUSHITA5, Sofia CHAVEZ6, Ryosuke SAWADA1, Masataka WADA1, Mie MATSUI1, Shinya FUJII1, Takahiro MIYAZAKI1, Mallar CHAKRAVARTY4, 5, Hiroyuki UCHIDA7, Gary REMINGTON1, 8, Ariel GRAFF-GUERRERO9, 10, Masaru MIMURA1, Shinichiro NAKAJIMA6, 7
1Department of Neuropsychiatry Keio University School of Medicine, Tokyo, Japan,
2Department of Psychiatry, Komagino Hospital, Tokyo, Japan,
3Cerebral Imaging Centre, Douglas Mental Health University Institute, McGill University, Montreal, Canada,
4Department of Psychiatry, McGill University, Montreal, Canada,
5Faculty of Environment and Information Studies, Keio University, Japan,
6Campbell Institute Research Program, Centre for Addiction and Mental Health, Toronto, Ontario, Canada,
7Department of Biomedical Engineering, McGill University, Montreal, Canada,
8Department of Psychiatry, University of Toronto, Toronto, Canada

P28-3 Causal relationship between salience network dysfunction, depressed mood, and subjective quality of life in schizophrenia

Masashi OHTA1, Masahito NAKATAKI1, Tomoya TAKEDA1, Shusuke NUMATA1, Takeo TOMINAGA1, Naomi KAMEOKA2, Hiroko KUBO1, Makoto KINOSHITA1, Kanae MATSUURA1, Maki OHTOMO2, Naoya TAKEICHI3, Masafumi HARADA4, Tetsuro OHMORI5
1Department of Psychiatry, Graduate School of Biomedical Sciences, Tokushima University, Tokushima, Japan,
2Department of Radiology and Radiation Oncology, Graduate School of Biomedical Sciences, Tokushima University, Tokushima, Japan,
3Department of Radiology, Tokushima University Hospital, Tokushima, Japan

P28-4 Analyses of metabolites related to polyunsaturated fatty acids in serum of antipsychotic-naïve individuals with an ‘at-risk mental state’ (ARMS)

Naohisa TSUJINO1, 2, Hiromi TAGATA1, Mayu ONOZATO1, Tatsuya SAKAMOTO1, Tomoyuki FUNATOGAWA1, Itsuki KIMURA4, Naoyuki KATAGIRI1, Taiju YAMAGUCHI1, Takahiro NEMOTO1, Takeshi FUKUSHIMA1, Masafumi MIZUNO1
1Department of Neuropsychiatry, Toho University School of Medicine, Tokyo, Japan,
2Department of Psychiatry, Seikei University Tsuchiaya Hospital, Kanagawa, Japan,
3Faculty of Pharmaceutical Sciences, Toho University, Chiba, Japan,
4Department of Pharmacy, Toho University Otsuka Medical Center, Tokyo, Japan

P28-5 Improvement of Mismatch negativity correlates with symptomatic and functional outcome of patients with first episode psychosis

Silvia Kyungjin LHO1, 2, Minah KIM1, 2, Tak Hyung LEE3, Yoo Bin KWAK3, Jun Soo KWON1, 2, 3
1Department of Psychiatry, Seoul National University College of Medicine, Seoul National University Hospital,
2Department of Brain and Cognitive Sciences, Seoul National University College of Natural Sciences

P28-6 Functional neuroanatomy of schema in patients with first episode schizophrenia spectrum disorders

Guangfan SHEN1, Woo-Sung KIM2, Congcong LIU3, Young-Chul CHUNG4
1Department of Psychiatry, Chonbuk National University Hospital, Jeonju, Korea,
2Department of Medical Science, Chonbuk National University, Jeonju, Korea,
3Department of Medical Science, Chonbuk National University, Jeonju, Korea,
4Research Institute of Clinical Medicine of Chonbuk National University-Biomedical Research Institute of Chonbuk National University Hospital, Jeonju, Korea
P28-7  Neural mechanisms of decision-making under risk and ambiguity in schizophrenia: A neuroeconomics investigation
Junya FUJINO1, 2, Shisei TEI1, 2, 3, 4, Kimito HIROSE2, Ryosaku KAWADA2, Kosuke TSURUMI2, Noriko MATSUKAWA2, Jun MIYATA2, Genichi SUGIHARA2, 3, Yujiro YOSHIHARA2, Nobumasa KATO2, Toshiya MURAF, Hidehiko TAKAHASHI1, 2, 5
1Medical Institute of Developmental Disabilities Research, Showa University, Tokyo, Japan,
2Department of Psychiatry, Graduate School of Medicine, Kyoto University, Kyoto, Japan,
3Institute of Applied Brain Sciences, Waseda University, Saitama, Japan,
4School of Human and Social Sciences, Tokyo International University, Saitama, Japan,
5Department of Psychiatry and Behavioral Sciences, Graduate School of Medical and Dental Sciences, Tokyo Medical and Dental University, Tokyo, Japan

Poster Session 29  October 12 (Sat), 16:40 - 18:10, Poster Hall (Fukuoka International Congress Center, 2F, Multi-purpose Hall)
Schizophrenia 8

Chair: Kazutaka OHI (Department of Psychiatry and Psychotherapy, Gifu University Graduate School of Medicine, Japan)

P29-1  Usefulness of a psychomotor function test as a cognitive function scale in schizophrenia
Hiroyuki KAMEI1, Ippei TAKEUCHI2, Yui YAMADA1, Yuichi HIRAI1, Manako HANYA1, Junji UNO2, Kiyoshi FUJITA2
1Lab. of Clinical Pharmacy Practice and Health Care Management, Faculty of Pharmacy, Meijo University, Nagoya, Japan,
2Department of Psychiatry, Okaehama Hospital, Toyoake, Aichi, Japan

P29-2  Excess Mortality and Risk Factors for Mortality Among Patients with Severe Mental Disorders Receiving Home Care Case Management
Wen Yin CHEN1, 2, 3, Daisuke MIKHARA1, 2, Tetsuya TANAKA1, 2, Yumie KOYANAGI1, 2, 4, Chiang JUE KUO5, 6, 7
1Department of psychiatry, Songde branch, Taipei City Hospital,
2Graduate Institute of Epidemiology and Preventive Medicine, National Taiwan University College of Public Health, Taipei, Taiwan,
3Psychiatric Research Center, Taipei Medical University Hospital, Taipei, Taiwan,
4Department of Psychiatry, School of Medicine, National Taiwan University, Taipei, Taiwan,
5Department of Psychiatry, Keio University School of Medicine, Tokyo, Japan,
6Department of Psychiatry, School of Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan,
7Department and Graduate Institute of Forensic Medicine, College of Medicine, National Taiwan University, Taipei, Taiwan

P29-3  Development of Diagnostic Criteria and Severity Scale of Polydipsia: A Systematic Literature Review and Expert Consensus
Mutsuki SAKUMA1, 2, 3
1National Hospital Organization, Kurinuma Medical and Addiction Center, Kanagawa, Japan,
2Department of Neuropsychiatry, Yamanashi Prefectural Kita Hospital, Yamanashi, Japan,
3Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan

P29-4  Structural and functional brain changes following electroconvulsive therapy (ECT) in schizophrenia patients: A systematic review
Sun-Young MOON1, 2, Minah KIM1, 2, Tae Young LEE1, 2, Ju Soo KWON1, 2, 3
1Department of Psychiatry, Seoul National University College of Medicine, Seoul, Republic of Korea,
2Department of Neuropsychiatry, Seoul National University Hospital, Seoul, Republic of Korea,
3Department of Brain and Cognitive Sciences, Seoul National University College of Natural Sciences, Seoul, Republic of Korea

P29-5  Methyglyoxal in plasma associate with anxiety in healthy individual
Kazuhiro SUZUKI1, 2, Kazuya TORIUMI1, Mitsuhiro MIYASHITA1, Akane YOSHIKAWA1, Yasue HIRUCHI1, Shin KOIKE3, Yuki OGASAWARA1, Hitoshi MIYAKAWA1, Shinsuke WASHIZUKA1, Makoto ARAI1
1Project for Schizophrenia Research, Tokyo Metropolitan Institute of Medical Science, Tokyo, Japan,
2Department of psychiatry, School of Medicine, Nagano, Japan,
3Department of Analytical Biochemistry, Meiji Pharmaceutical University, Tokyo, Japan

P29-6  Holy water bathing versus antipsychotics in the treatment of schizophrenia: a scenario-based survey on clinical decision-making among Thai medical students
Pornjira PARIWATCHARAKUL1, Theenida WANNAKOWAT2
1Department of Psychiatry, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand,
2Hatayi Hospital, Songkhla, Thailand

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An-Nie CHUNG, Shih-Ku LIN
Taipei City Psychiatric Center, Taipei City Hospital, Taipei, Taiwan
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Nan-Ying CHIU1,2, Shu-Hui HU1, Pei-Ju TSAI1
1Department of Psychiatry, Evergreen Campus, Lugang Christian Hospital, 2Department of Psychiatry, Changhua Christian Hospital, Changhua City, Taiwan

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Yuhei KIKUCHI1,2, Yutaro SHIMOMURA1,3, Hiroyuki UCHIDA1, Takefumi SUZUKI4, Masanori MIMURA1, Hiroshi TAKEUCHI1
1Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan, 2Department of Psychiatry, Komagino Hospital, Tokyo, Japan, 3Department of Psychiatry, Yokohama Municipal Citizen’s Hospital, Kanagawa, Japan, 4Department of Neuropsychiatry, Faculty of Medicine, University of Yamanashi, Yamanashi, Japan

P30-3 A Study of utility of mental health assessment using hand-held-sensor based on nano-technology: Pilot Study
Sangyeol LEE1, Seung-Ho JANG1, Jeong-Wan HONG1
1Department of Psychiatry, Wonkwang University School of Medicine and Hospital, 2Department of Psychiatry, Iksan General Hospital

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Chien-Chen Jean HUANG1,2, Yu-Cih YANG1, Yi-Hung CHEN1
1Graduate Institute of Chinese Medicine, China Medical University, 2Graduate Institute of Traditional Chinese Medicine, An Nan Hospital, China Medical University, Tainan, Taiwan,
3Management office for Health Data, China Medical University Hospital, Taichung, Taiwan,
4Graduate Institute of Acupuncture Science, China Medical University, Taichung, Taiwan

P30-5 A study on the psychosocial characteristics and quality of life in functional gastrointestinal disorders
Dong Ho LEE1, So-Won KIM1, Sang-Yool LEE1, Han-Seung RYU1, Suck-Cheol CHOP1, Seung-Ho RHO1, Seung-Ho JANG1
1Departments of Psychiatry, School of Medicine, Wonkwang University, Iksan, Korea, 2Departments of Internal Medicine, Wonkwang University, Iksan, Korea

P30-6 National Center of Neurology and Psychiatry Biobank: Infrastructure for Neuropsychiatric Research
Kotaro HATTORI1,2, Yuuki YOKOTA1,2, Ryo MATSUMURA1, Sumiko YOSHIDA1, Yu-ichi GOTO1, Hiroshi KUNUGI2
1Medical Genome Center, National Center of Neurology and Psychiatry, 2Department of Mental Disorder Research, National Institute of Neuroscience, National Center of Neurology and Psychiatry

Noteworthy drug discovery/research and development - Aiming for innovation -
*Posters of this session will be displayed for three days from October 11 (Fri) to October 13 (Sun). Abstracts of this session are on P. 165 - 170.

Chair: Tetsurou KIKUCHI (New Drug Research Division, Pharmaceutical Business Division, Otsuka Pharmaceutical Co., Ltd.)

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Masanari ITOKAWA1,2
1Tokyo Metropolitan Institute of Medical Science, 2Tokyo Metropolitan Matsuzawa Hospital

DDR-2 Balanced Activation of Striatal Output Pathways by Faster Off-Rate Phosphodiesterase 10A Inhibitors Potentially Leads to not only Antipsychotic-Like Effects but also Activation of the Prefrontal Cortex and Cognitive Improvement in Rodents
Haruhide KIMURA
Neuroscience Drug Discovery Unit, Research, Takeda Pharmaceutical Company Limited

DDR-3 SEP-363856, a Candidate Antipsychotic Compound with a Novel Non-D2 Mechanism of Action
Kazuki YABUUCHI1, Kenneth KOBLAN2, Robert GOLDMAN2, Justine KENT2, Seth HOPKINS2, Antony LOBEL2
1Drug Development Division, Sumitomo Dainippon Pharma Co., Ltd., Tokyo, Japan, 2Sunovion Pharmaceutical Inc.
DDR-4 Development of oxytocin as a novel therapeutic for autism spectrum core symptoms by utilizing multimodal outcome measures
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1Department of Drug Dependence Research, National Institute of Mental Health, National Center of Neurology and Psychiatry,
2Department of Mental Health and Psychiatric Nursing Tokyo Medical and Dental University,
3Social Psychiatry and Mental Health, Faculty of Medicine, University of Tsukuba,
4Department of Psychiatry, Center Hospital, National Center of Neurology and Psychiatry,
5Department of Psychiatry, Chiba Hospital,
6Department of Clinical Research Promotion, Translational Medical Center, National Center of Neurology and Psychiatry,
7Department of Biostatistics, Faculty of Medicine, University of Tsukuba

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1Drug Discovery & Disease Research Laboratory, Shionogi & Co., Ltd.,
2Department of Pharmacology and Toxicology, Jacobs School of Medicine and Biomedical Sciences, University at Buffalo,
3Department of Pharmaceutical Sciences, School of Pharmacy and Pharmaceutical Sciences, University at Buffalo,
4Tetra Discovery Partners Inc.

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Eriko NAKATA
Nippon Chemiphar Co., Ltd.

DDR-8 The pharmacological and clinical profile of vortioxetine, an antidepressant with multimodal activity
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H. Lundbeck A/S

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1Janssen Japan R&D, 2Hamamatsu University School of Medicine, 1Janssen Research and Development, LLC

DDR-11 R-Ketamine (or Arketamine) as a rapid-acting antidepressant
Kenji HASHIMOTO
Chiba University Center for Forensic Mental Health, Chiba, Japan
ASEAN Pre-Congress Meeting
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Kazutaka Ikeda
Chair, 6th Congress of Asian College of Neuropsychopharmacology (AsCNP 2019)
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15th World Congress of Biological Psychiatry

27 June – 1 July 2021

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<td>AL2-8</td>
<td>Xin Du</td>
<td>Australia</td>
<td>Behavioural characterisation of the GluN2D-ΔR knock-out mouse model in response to S-ketamine and R-ketamine</td>
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# Excellent Research Award for AsCNP2019

## Topic: Preclinical

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<tr>
<td>Oral Session 1</td>
<td>O1-4</td>
<td>Fan Zeng</td>
<td>Japan</td>
<td>Porphyromonas gingivalis Infection increases RAGE Production in hCMEC/D3 Cell Line</td>
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<tr>
<td>Oral Session 1</td>
<td>O1-6</td>
<td>Yebo Gu</td>
<td>Japan</td>
<td>Chronic systemic exposure of Lipopolysaccharide from Porphyromonas gingivalis induces memory decline and bone loss in middle-aged mice</td>
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<tr>
<td>Oral Session 1</td>
<td>O1-8</td>
<td>Marco Andrea Riva</td>
<td>Italy</td>
<td>Restorative properties of the second-generation antipsychotic drug blonanserin on stress-induced oxidative derangements in the rat prefrontal cortex</td>
</tr>
<tr>
<td>Oral Session 1</td>
<td>O1-9</td>
<td>Yoshide Yabuki</td>
<td>Japan</td>
<td>T-type calcium channels are critical for adult mouse hippocampal neurogenesis</td>
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<td>Oral Session 5</td>
<td>O5-6</td>
<td>Nageiswari Parathy</td>
<td>Singapore</td>
<td>The effects of acute finasteride treatment in dopamine transporter knockout mice and MK-801-treated mice</td>
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<td>Poster Session 14</td>
<td>P14-6</td>
<td>Ervana Ikha Yusnita</td>
<td>Indonesia</td>
<td>Prevalence of Homosexual and Bisexual Adolescents in Bandung, Indonesia</td>
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## Topic: Translational

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<td>Poster Session 1</td>
<td>P1-5</td>
<td>Nene Koike</td>
<td>Japan</td>
<td>Role of T-type calcium channels in methamphetamine-induced hyperlocomotion and neuronal excitation in mice</td>
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<tr>
<td>Poster Session 17</td>
<td>P17-6</td>
<td>Md. Ali Bin Saifullah</td>
<td>Japan</td>
<td>Touchscreen-based tests detect cognitive impairment at an early stage in APP knock-in mice model</td>
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## Topic: Clinical

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<tr>
<td>Oral Session 4</td>
<td>O4-1</td>
<td>Jane Pei-Chen Chang</td>
<td>UK</td>
<td>Omega-3 PUFAs improve social behaviour and cognitive function in children with ADHD and high inflammation</td>
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<tr>
<td>Oral Session 5</td>
<td>O5-1</td>
<td>Shunya Kurokawa</td>
<td>Japan</td>
<td>Psychiatrists’ perceptions of medication adherence among patients with schizophrenia: An international survey</td>
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<td>Poster Session 9</td>
<td>P9-1</td>
<td>MuHong Chen</td>
<td>Taiwan</td>
<td>Persistent antidepressant effect of low-dose ketamine and activation in the supplementary motor area and anterior cingulate cortex in treatment-resistant depression</td>
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<td>Poster Session 20</td>
<td>P20-1</td>
<td>Yoshihiko Kosaki</td>
<td>Japan</td>
<td>Associations between genetic polymorphisms on chromosome 14q32 and effects of opioid analgesics and chronic pain</td>
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<td>Poster Session 21</td>
<td>P21-1</td>
<td>Seon-Cheol Park</td>
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<td>Reduced Awareness of Surroundings Is the Most Central Domain in the Network Structure of Posttraumatic Stress Disorder Symptoms</td>
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<td>Poster Session 23</td>
<td>P23-2</td>
<td>Catherine Weiss</td>
<td>USA</td>
<td>Symptomatic and functional response to brexpiprazole treatment in patients with acute schizophrenia by age</td>
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<td>Poster Session 23</td>
<td>P23-3</td>
<td>Kentaro Takai</td>
<td>Japan</td>
<td>Efficacy and Safety of Lurasidone in Acutely Psychotic Patients with Schizophrenia: A 6-Week, Randomized, Double-Blind, Placebo-Controlled Phase 3 Study (JEWEL Study)</td>
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## Topic: Case Report

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<td>Poster Session 24</td>
<td>P24-5</td>
<td>Ji-Yu Lin</td>
<td>Taiwan</td>
<td>Paliperidone Induced Dose-Dependent Sialorrhea with Biperiden Treatment</td>
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## Excellent Presentation Award for AsCNP2019

**Category: Resident/Researcher**

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<td>O3-2</td>
<td>Ekachaeryanti Zain</td>
<td>Indonesia</td>
<td>The Efficacy of Vitamin D3 as Adjuvant Therapy in The Improvement of Depressive Symptoms</td>
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<td>P3-4</td>
<td>Shanta Thapa</td>
<td>Japan</td>
<td>Involvement of free fatty acid receptor 1 (FFAR1) in the regulation of striatal monoamine releases and cocaine-induced locomotor activity in mice</td>
</tr>
<tr>
<td>P4-5</td>
<td>Nak-Young Kim</td>
<td>Korea</td>
<td>Clinical correlates associated with the long-term response of bipolar disorder patients to lithium, valproate, or lamotrigine: a retrospective study</td>
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<td>P10-2</td>
<td>Satoshi Deyama</td>
<td>Japan</td>
<td>BDNF/VEGF release and mTORC1 activation in the medial prefrontal cortex are required for the antidepressant actions of resolvlin E1 in lipopolysaccharide-induced depression model mice</td>
</tr>
<tr>
<td>P20-2</td>
<td>Rie Inoue</td>
<td>Japan</td>
<td>Association of a candidate locus for human opioid sensitivity identified in a genome-wide association study in patients undergoing laparoscopic-assisted colectomy with postoperative opioid requirements in patients undergoing painful cosmetic surgery</td>
</tr>
<tr>
<td>P28-5</td>
<td>Silvia Kyungjin Lho</td>
<td>Korea</td>
<td>Improvement ofMismatch negativity correlates with symptomatic and functional outcome of patients with first episode psychosis</td>
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<td>P29-6</td>
<td>Pornjira Pariwatcharakul</td>
<td>Thailand</td>
<td>Holy water bathing versus antipsychotics in the treatment of schizophrenia: a scenario-based survey on clinical decision-making among Thai medical students</td>
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**Category: Senior Researcher**

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<tr>
<td>O2-3</td>
<td>Wai Kwong Tang</td>
<td>Hong Kong</td>
<td>Evidence of Brain Damage in Chronic Ketamine Users a Brain Imaging Study</td>
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<tr>
<td>O2-9</td>
<td>Kotaro Hatta</td>
<td>Japan</td>
<td>Real-world effectiveness of ramelteon and suvorexant on delirium prevention in 967 patients with delirium risk factors</td>
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<tr>
<td>P6-1</td>
<td>Minah Kim</td>
<td>Korea</td>
<td>Resting-state functional connectivity of the raphe nucleus as a predictor of the response to selective serotonin reuptake inhibitors in patients with obsessive-compulsive disorder</td>
</tr>
<tr>
<td>P9-3</td>
<td>Ming-Huan Chan</td>
<td>Taiwan</td>
<td>Combined treatment with dimethylglycine attenuates the behavioral deficits induced by repeated ketamine exposure</td>
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<td>P19-2</td>
<td>Makoto Tsuda</td>
<td>Japan</td>
<td>Investigation of neuropathic allodynia with sensory and emotional components using an optogenetic approach</td>
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<td>P20-5</td>
<td>Fumiko Sekiguchi</td>
<td>Japan</td>
<td>Paclitaxel, an anti-cancer drug, causes extracellular release of HMGB1, a pro-inflammatory and pro-nociceptive mediator, in Schwann cells derived from neonatal rat sciatic nerves</td>
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**Category: Student/Graduate Student**

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<tr>
<td>O1-7</td>
<td>Willy Jaya Sueneto</td>
<td>Indonesia</td>
<td>Lipopolysaccharide injection triggers indoleamine-2,3-dioxygenase 1 and miR-874-3p interaction which leads to depression-like behavior in mice</td>
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<tr>
<td>O2-8</td>
<td>Tien-Yu Chen</td>
<td>Taiwan</td>
<td>The use of benzodiazepine receptor agonists and the risk of venous thromboembolism</td>
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<td>O5-5</td>
<td>David D. Kim</td>
<td>Canada</td>
<td>Clozapine-associated obsessive-compulsive symptoms and their management: a systematic review and analyses of 107 reported cases</td>
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<td>O5-8</td>
<td>Jay P. Nakamura</td>
<td>Australia</td>
<td>Touchscreen cognitive performance following maternal immune activation targeting early and late prenatal neurodevelopmental windows</td>
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<td>P12-1</td>
<td>Hajime Miyanishi</td>
<td>Japan</td>
<td>Decrease in striatal Shati/Nat8l induces resilience of depression via regulation of acetylation of histone in the Bdnf gene</td>
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<td>P14-2</td>
<td>Miho Tanaka</td>
<td>Japan</td>
<td>The effects of valproic acid for abnormal sleep rhythm in mice with partial defect of Srrm4</td>
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<td>Mutsuki Sakuma</td>
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<td>Development of Diagnostic Criteria and Severity Scale of Polydipsia: A Systematic Literature Review and Expert Consensus</td>
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<td>Yuhei Kikuchi</td>
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<td>Single vs. multiple daily dosing regimen of psychotropic drugs for psychiatric disorders: A systematic review and meta-analysis</td>
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**LBA Award for AsCNP2019**

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<td>Late-Breaking Abstracts</td>
<td>LBA-4-5</td>
<td>Yu-Cheng Ho</td>
<td>Taiwan</td>
<td>Functional plasticity in the midbrain periaqueductal gray contributes to comorbidity of chronic pain and depression</td>
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<tr>
<td>Late-Breaking Abstracts</td>
<td>LBA-4-6</td>
<td>Yuko Nakatake</td>
<td>Japan</td>
<td>A ROCK inhibitor, Fasudil, suppressed behavioral changes induced by physical stress, but not by emotional stress in mice social defeat stress model</td>
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