Editorial
http://dx.doi.org/10.9758/cpn.2016.14.2.115
Clinical Psychopharmacology and Neuroscience 2016;14(2):115-116
pISSN 1738-1088 / eISSN 2093-4327

Neuroscience-based Nomenclature (NbN) for *Clinical Psychopharmacology and Neuroscience*

As of May 2016, *Clinical Psychopharmacology and Neuroscience* will encourage the use of Neuroscience-based Nomenclature (NbN) for all publications and correspondence. NbN has been developed to replace the current indication-based nomenclature and to provide a contemporary and useful framework for more scientific and better informed pharmacological decisions. Several other leading journals in the field, including *Biological Psychiatry*, *CNS Spectrums*, *European Psychiatry*, *International Journal of Neuropsychopharmacology*, *Neuropsychopharmacology*, and others have endorsed this nomenclature for its use in submissions.

The current nomenclature is based on clinical indications; for example, drugs used for mania and psychosis they are classified as "mood stabilizers" and "antipsychotic drugs", respectively. While this conventional nomenclature has been widely used in clinical as well as research settings, there are a number of limitations to this system. First, boundaries among various categories of psychotropic drugs, using the current nomenclature have become unclear. "Antipsychotic drugs" and "mood stabilizers" are good examples; antipsychotic drugs are used for not only schizophrenia, but also mood disorders, including bipolar disorder and treatment resistant depression. On the other hand, mood stabilizers are often prescribed for a mood component in any psychiatric disorder. This discrepancy between their names and indications often confuses patients and their caregivers and sometimes leads to a misunderstanding of the effects of prescribed medications. Second, up-to-date scientific knowledge on these drugs has not been reflected in the current nomenclature. This is a serious issue since the current system was created nearly half a century ago. For example, dopamine receptor antagonists and a partial dopamine receptor agonist are currently included in the same category of "antipsychotic drugs" despite the difference in their drug profiles. Moreover, the involvement of the serotonergic system also has to be considered for some drugs. However, such differences are not reflected in the current system.

To overcome these limitations of the current nomenclature, following an initiative of the European Congress of Neuropsychopharmacology (ECNP), a taskforce for psychotropic nomenclature was established with representatives from 5 international organizations: the ECNP, Asian College of Neuropsychopharmacology (AsCNP), American College of Neuropsychopharmacology (ACNP), International College of Neuropsychopharmacology (CINP), and International Union of Basic and Clinical Pharmacology (IUPHAR). The mission of this taskforce is to provide a pharmacologically-driven (rather than indication-based) nomenclature that embeds contemporary neuroscience understanding of how medicines act, to help clinicians to make informed choices when they are trying to figure out what would be the next "pharmacological step", and to decrease stigma and enhance adherence by a naming system that lays out the rationale for selecting a specific psychotropic.[1,2]

In the first edition of the NbN, 108 psychotropics are included. The NbN provides a pharmacological driven nomenclature focusing on pharmacology and mode of action, which reflects current knowledge and understanding about the targeted neurotransmitter, molecule, system being modified, and mode/mechanism of action. It also includes 4 additional dimensions: (1) approved indications, (2) efficacy and side effects, (3) "practical note" which summarizes the clinical knowledge that has been prioritized by "filtering" though the taskforce's "opinion sieve", and (4) neurobiology.[3] The easiest and recommended way to access the newest version of the NbN is to use the approved app, which is freely available on the project's website (http://nbnomenclature.org/). In this website, there is a special tag - For Authors, too.[3]

The NbN project has just started. Taking into account new findings and new insights, including feedback from users, the NbN will be updated on a yearly basis. Since it al-

Corresponding author: Hiroyuki Uchida, MD, PhD
Department of Neuropsychiatry, Keio University School of Medicine, 35 Shinanomachi, Shinjuku-ku, Tokyo 160-8582, Japan
Tel: +81-3-5363-3829, Fax: +81-3-5379-0187
E-mail: hiroyuki.uchida.hu@gmail.com

ways needs time to change the culture, we understand the transition will likely involve some expected and unexpected responses from the field. However, we rather believe that such responses and feedback will surely improve the quality of the NbN, which in turn will be beneficial for clinicians, researchers, patients as well as their caregivers.

■ **Acknowledgments**

Dr. Uchida has received grants from Astellas Pharmaceutical, Eisai, Otsuka Pharmaceutical, Shionogi, Dainippon-Sumitomo Pharma, Eli Lilly, Mochida Pharmaceutical, Meiji-Seika Pharma, and Yoshitomi Yakuhin and speaker's honoraria from Otsuka Pharmaceutical, Eli Lilly, Shionogi, Pfizer, Yoshitomi Yakuhin, Dainippon-Sumitomo Pharma, Meiji-Seika Pharma, MSD, and Janssen Pharmaceutical within the past three years. Dr. Yamawaki has received donation for research from Astellas, Pfizer and MSD (all less than 10,000 USD/year), honoraria for lectures from Glaxo Smith Kline, Astellas, Daiichi Sankyo, Japan Eli Lilly, Takeda, Otsuka, Eisai, Dai Nippon Sumitomo, Shionogi, Meiji Seika, Mochida and Pfizer (all less than 5,000 USD/year). Dr. Bahk has received chairperson and speaker's honoraria from AstraZeneca, Glaxo Smith Kline, Eli Lilly, Pfizer, Janssen, Takeda, Otsuka, Mitsubishi Tanabe, Dainippon Sumitomo Pharma, Bukwang, Jeil and Boryung. Dr. Jon has received honoraria for lectures and consulting from Otsuka, Eli Lilly, Glaxo Smith Kline, Pfizer, Janssen, Dai Nippon Sumitomo, Dongwha, Jeil and Whanin.

No financial support for this manuscript was received from any pharmaceutical companies.

REFERENCES

1. Zohar J, Nutt DJ, Kupfer DJ, Moller HJ, Yamawaki S, Spedding M, *et al. A proposal for an updated neuropsychopharmacological nomenclature. Eur Neuropsychopharmacol 2014;24:1005-1014.*
2. Zohar J, Stahl S, Moller HJ, Blier P, Kupfer D, Yamawaki S, *et al. A review of the current nomenclature for psychotropic agents and an introduction to the Neuroscience-based Nomenclature. Eur Neuropsychopharmacol 2015;25:2318-2325.*
3. European Congress of Neuropsychopharmacology. *Neuroscience-based Nomenclature [Internet]. Utrecht, the Netherlands: ENCP ; Year [cited at 2016 Mar 1]. Available from: http://nbnomenclature.org/.*

Hiroyuki Uchida[1,2], Shigeto Yamawaki[2,3], Won-Myong Bahk[4], Duk-In Jon[5]

[1]Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, [2]Neuroscience-based Nomenclature Taskforce, Asian College of Neuropsychopharmacology, Tokyo, [3]Department of Psychiatry and Neurosciences, Hiroshima University, Hiroshima, Japan, [4]Department of Psychiatry, College of Medicine, The Catholic University of Korea, Seoul, [5]Department of Psychiatry, Hallym University Sacred Heart Hospital, Anyang, Korea