### Presidential Lecture

**iii** Fri. Sep 26, 2025 2:50 PM − 3:40 PM JST | Fri. Sep 26, 2025 5:50 AM − 6:40 AM UTC **iii** Session Room 1 (Main Hall A)

# [Presidential Lecture 1] Piano Theory: Re-tuning the Mind Through Neurobiological Harmony and Cultural Resonance

Moderator: Mario Braakman (Tilburg University)

### [PL-1]

Piano Theory: Re-tuning the Mind Through Neurobiological Harmony and Cultural Resonance \*Itsuo Asai<sup>1</sup> (1. Heart Clinic Medical Corporation (Japan))

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Keywords: Piano Theory、Neuroplasticity、Brain Mapping、Cultural Psychiatry、Biomarkers

## President of PRCP&WACP2025 Joint Congress Tokyo, Heart Clinic Medical

**Corporation.** In a field often split by mind-brain dualisms, Piano Theory provides a unifying metaphor: the brain as an instrument and healing as restoring harmony. Each neurotransmitter receptor is compared to a piano key. At the same time, large-scale brain networks—such as the Default Mode Network (DMN), Central Executive Network (CEN), and Salience Network (SN)—are seen as the functional "chords" that support cognition, emotion, and self-awareness. Psychiatric disorders are viewed as failures in these connections—disruptions in receptor interactions and network synchrony. Piano Theory emphasizes neuroplasticity, BDNF timing, and receptor co-modulation (e.g., 5-HT1A + 5-HT2C; OX1 + OX2) as potential mechanisms for re-tuning the mind. Crucially, the model includes cultural resonance as a flexible layer that influences mental health and recovery. From trauma-informed care and expressive arts to indigenous healing and community psychiatry, cultural patterns shape how individuals understand, tell stories about, and recover from distress. This lecture suggests diagnostic and therapeutic strategies that combine biomarker-driven treatments with culturally sensitive care, including rhythmbased activities, narrative medicine, and multimodal resonance mapping. Recovery is not just about restoring function but also about re-tuning identity. Presented at the joint congress of PRCP and WACP, Piano Theory aims to unify neuroscience with human experience, fostering collaboration among psychiatry, anthropology, and the arts. Ultimately, it encourages us to rethink our approach to mental health: not only through science but also through storytelling, society, and spirituality.