#### INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting July 6-8, 2023 • July 9, 2023 (Special Event) DATE **VENUE** Taipei International Convention Center TAIPEI, TAIWAN Executive **Neurorehabilitation Function** Well-being **Higher Brain Emotion** Dysfunction Communication TBI Social Memo ADL&IADL Attention **Everyday** Cognition Sleep



Dementia



# Index

About the INS 2023 Taiwan Meeting $\cdots \cdots \cdots$
Welcome address · · · · · · · · · · · · · · · · · ·
Meeting committee · · · · · · · · · · · · · · · · · ·
Local Organizing Committees ••••••••••••••••••••••••••••••••••
Scientific Committee • • • • • • • • • • • • • • • • • •
About INS · · · · · · · · · · · · · · · · · · ·
Benefits of Membership: ••••••••••••••••••••••••••••••••••••
Future INS Meetings ••••••••••••••••••••••••••••••••••••
INS Award · · · · · · · · · · · · · · · · · · ·
About TANDMR · · · · · · · · · · · · · · · · · · ·
Co-organizers 13
Program at a Glance 14
Meeting information • • • • • • • • • • • • • • • • • • •
Meeting Venue <b>18</b>
Floor plan ••••••••••••••••••••••••••••••••••••
Registration 20
Meeting Events ••••••••••••••••••••••••••••••••••••
Special Event ••••••••••••••••••••••••••••••••••••
Exhibition ••••••••••••••••••••••••••••••••••••
2023 INS Awards
Keynote Speech 1-6 · · · · · · · · · · · · · · · · · · ·
CE Workshop A/B/D · · · · · · · · · · · · · · · · · · ·
Pre-Opening Symposium ••••••••••••••••••••••••••••••••••••
Invited Symposium 47
Special Symposium 55
Symposium · · · · · · · · · · · · · · · · · · ·
Paper sessions 64
Poster Sessions 70
Sponsors · · · · · · · · · · · · · · · · · · ·



# About the INS 2023 Taiwan Meeting

#### **Conference Name:**

2023 International Neuropsychological Society Taiwan Meeting (INS 2023 Taiwan Meeting)

#### Theme:

Toward Multi-Disciplinary Collaborations in Neuropsychology

### Date:

Conference Date: July 6-8, 2023 Special Event: July 9, 2023

#### Venue:

Taipei International Convention Center No. 1, Sec. 5, Xinyi Rd., Xinyi Dist., Taipei City, Taiwan (R.O.C.)

Official Website: https://www.ticc.com.tw/main\_en/index.aspx

### **Organizers:**

International Neuropsychological Society (INS) Taiwan Association of Neuropsychological Development and Mental Rehabilitation (TANDMR)

## **Official Language:**

English

# Welcome address

#### 2023 INS Taiwan Meeting

# Toward Multi-Disciplinary Collaborations in Neuropsychology



I am delighted to welcome you to the International Neuropsychological Society (INS) 2023 meeting in Taipei, Taiwan, held in association with the Taiwan Association of Neuropsychological Development and Mental Rehabilitation (TANDMR).

This meeting represents a landmark for INS as it is our first ever meeting in East Asia. The INS is committed to supporting the development of neuropsychological science and practice across the world and this meeting provides us with a wonderful opportunity to showcase excellent neuropsychological research from all parts of Asia, as well as from the rest of the world.

I would like to congratulate our Program Co-Chairs, Professor Nai-Wen Guo and Dr Maiko Sakamoto, and all members of their local organising team, for putting together a wonderful programme of keynote speakers, symposia, free paper sessions, and continuing education workshops. In addition we have a wonderful social program to look forward to!

The motto of the INS is 'Where the World Meets' and this will definitely be the case here in Taipei, where you will have the opportunity to meet and discuss neuropsychology with colleagues from at least 24 countries.

The last few years have been challenging for all of us. In many ways the pandemic brought us closer with our shared experience of coping with Covid and remote meetings that have allowed us to meet virtually throughout the periods where travel was not possible. But there is nothing like meeting in person, and here in Taipei you will receive a very warm Taiwanese welcome in the city known for its friendliness and wonderful mix of cultural influences.

Have a wonderful conference - I look forward to meeting you!

Jon Evans, Ph.D. INS President

> INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



# Welcome address

### 2023 INS Taiwan Meeting

# Toward Multi-Disciplinary Collaborations in Neuropsychology

Honorable INS faculty, distinguished speakers, dearest members and friends:

It is my great honor and privilege to host this great conference of INS and invite everyone to come together at Taiwan, so that more Asian patients and professionals can participate and consequently be more familiar with the perspective of neuropsychology. Through this meeting, I believe, more people will get substantial benefits due to the advent of neuropsychology and not surprisingly, this meeting will have a strong impact at the Asian region, especially Taiwan.

We all believe that mind and brain health is a fact, a real event, and surely true enough. Through the study of neuropsychology, we know more about the mental health based on the special brain-driven systems. Moreover, through the monitoring of emotions, cognition, and behavior, the happy brain produces a more complete sense of self that we should always be grateful. Personally, I had been both attracted and overwhelmed by the knowledge of neuropsychology and the therapeutic techniques developed from it over the past 4 decades. After 18 years of my career in rehabilitation field as a clinical psychologist, Taiwan started Psychologist Act and National Board Examination. After another 18 years, I established Taiwan Association of Neuropsychological Development and Mental Rehabilitation, (TANDMR) to verify the specialty of clinical neuropsychologists. And in 2024, I am reaching a milestone of 40 years as a clinical neuropsychologist to serve in clinical healthcare and, consequently, time for retirement.

Passing the four years of fighting with covid-19 and when the world is gradually returning to order and peace, stability and trust, it is a great honor to learn that fellow neuropsychologists from 24 countries have come to Taiwan to attend the 2023 INS Taiwan meeting, a real event for us to communicate and share in person. For this particular reason, I would like to express my most sincere gratitude.

#### Nai-Wen Guo, Ph.D., Professor.

Program Co-Chair, INS 2023 Taiwan Meeting President, Taiwan Association of Neuropsychological Development and Mental Rehabilitation President, Association of Taiwan Clinical Psychologist Professor, Institute of Behavioral Medicine, National Cheng Kung University





# Welcome address

#### 2023 INS Taiwan Meeting

# Toward Multi-Disciplinary Collaborations in Neuropsychology

On behalf of the INS Taiwan Program Committee, I am delighted to extend a warm welcome to the esteemed participants of the Mid-Year Meeting of the International Neuropsychological Society in Taipei, scheduled for July 6 – 8, 2023. It is my utmost privilege to serve as a



program co-chair for our inaugural meeting in East Asia, with a sincere commitment to fostering the growth and advancement of the field of neuropsychology in Asian countries.

Undoubtedly, Asian countries, like many others, have been significantly impacted by the global COVID-19 pandemic, which has impeded our daily activities. Nevertheless, this challenging period has also presented us with an opportunity to explore new avenues of communication and collaboration, enabling seamless interaction with colleagues across the globe. Consequently, our professional bonds have grown stronger, laying a robust foundation of mutual support.

This gathering bears a vital purpose of fostering camaraderie and knowledge sharing. It is important to acknowledge that the development of neuropsychology varies across Asian countries, each with its unique trajectory and processes. For instance, Japan recently conducted its first clinical neuropsychologist examination in 2022, certifying a total of 401 clinical neuropsychologists. Hence, recognizing the distinct histories and advancements in our respective nations, we are passionately committed to building bridges that facilitate the exchange of research, clinical practices, and educational experiences among peers within Asia and worldwide.

I take great pleasure in extending invitations to distinguished researchers and clinicians of international acclaim, who will grace our event as keynote speakers, invited symposium speakers, and CE session speakers. Their contributions will undoubtedly enrich our collective knowledge through their advanced research findings and clinical expertise. Gratitude is due to Dr. Benjamin M. Hampstead, CE Chair, for orchestrating cutting-edge workshops, as well as to Dr. Marc A. Norman, the INS Executive Director, Dr. Jonathan Evans, the President, Chantal Marcks, and Matra Robinet at the INS Office, for their invaluable support in bringing this conference to fruition. I would also like to express my sincere appreciation to the INS Taiwan Team, particularly Drs. Yu-Ling Chang and Ya-Wen Jang, for their close collaboration with Dr. Guo and myself.

With great anticipation, we eagerly await your presence at this conference. May it provide a platform for reconnecting with old acquaintances, forging new relationships, and cultivating networks for future endeavors.

#### Maiko Sakamoto, Ph.D.

Program Co-Chair INS 2023 Taiwan Meeting



# **Meeting committee**

## **Local Organizing Committees**

#### Program Committee:

#### Venue and Equipment Committee:

	Venue una Equi
Ya-Wen Jan	Ching Chen
Ching-Hua Shen	Pei-Ju Cheng
Chen-Peng Chen	Chieh-Ning Li
Chun-Hui Yen	Kuan-Tang Huang
	Hsiu-Ju Cheng
Abstract and Poster Committee:	Chia-Ling Hsu
Yu-Ling Chang	Yi-Jia Xu
Wei-Han Wang	
Chia-Hsing Chi	Yu-Xuan Wang
Ming-Shan Tsai	Jia-Jie Lee
	Tzu-Hsuan Wang
Program Book Committee:	Ming-Shan Tsai
Gan Hooi See	Shih-Yi Tung
Kuan-Tang Huang	Min-Hsuan Tseng
Po-Chih Liu	Kai-Xuan Wang
Kuan-Ying Lin	Shu-Hsuan Wu
Jui-Chien Huang	Yan-Zhen Chen
	Yi-Hua Ye
Internet Communication Committee:	Lin-Shan Chang
Pin-Yang Yeh	Chao-Hsiang Tsai
	Yu-Ru Sue
VIP Reception Committee:	Wan-Tang Lin
Yu-Ting Pi	0
Kuan-Ying Lin	
Hui-Yu Chuang	

Han-Yun Chang

INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



## **Meeting committee**

General Reception Committee:	Budget Management Committee:				
Tzu-Lo Ni	Yu-Chi Liao				
Chia-Yun Wu	Shu-Mei Tai				
Pei-Chia Huang	Ting-Li Wang				
Ting-Yu Yeh	Gan Hooi See				
Ting-Hsuan Chang	Pei-Ling Tsai				
Yu-Chun Tseng	Yu-Ting Pi				
Wei-Ling Su	Pin-Yang Yeh				
Ju-Chun Huang	Pei-Ju Cheng				
Guan-Yin Chen	Bei-Yi Su				
Jia-Wei Su	Sung-Jung Hsieh				
	Chi Hsuan Wu				
Supplier Liaison Committee:					
Ting-Li Wang	Student Activity Committee:				
Yu-Chi Liao	Wen-Yi Huang				

Wen-Yi Huang Peng-Chen Chen Wen-Hao Chang



Gan Hooi See

Wen-Yi Huang

## **Meeting committee**

## **Scientific Committee**

(Alphabetical order)	
Athene Lee	Meng-Yang Ho
Atsuko Nakagawa	Michelle Chen
Baochan Tran	Michelle Madore
Celia Han	Mie Matsui
Cheng-Chang Yang	Nai-Wen Guo
Chia-Hsing Chi	Narinder Kapur
Chimei Lee	Palak Lunia
Christy Hom	Rowana Ng
Dasal Jashar	Satoshi Umeda
Doris Hong	Shehroo Pudumjee
Ernest Fung	Shubir Dutt
Esther Chin	Takashi Tsukiura
George Lin	Wei-Han Wang
Halle Quang	Yen-Hsuan Hsu
Hikari Yamashita	Yoko Okamura
Hsin-Te Chang	Yu-Chi Liao
Jasdeep Hundal	Yukihiko Ueda
Joyce Tam	Yu-Ling Chang
June Paltzer	Zai-Ting Yeh
Kamini Krishnan	
Kazuyuki Sakatsume	
Machia Okubo	
Maiko Sakamoto	
Martin Woon	



The International Neuropsychological Society (INS) was founded in 1967 as a non-profit, professional, scientific and educational organization dedicated to enhancing communication among the scientific disciplines which contribute to the understanding of brain-behavior relationships. The society currently has more than 4700 members throughout the world and from various areas of practice. Members include clinical neuropsychologists, neurologists, neurologists, neurosurgeons, psychiatrists, speech and language pathologists, as well as students from some of the world's most prestigious universities and institutions.

INS holds two meetings each year, including its Annual Meeting every February in North America, and its Mid-Year Meeting every July in a different location worldwide, offering cutting edge scientific programming and continuing education workshops. "Where the World Meets"the mission of INS is to promote the international and interdisciplinary study of brain-behavior relationships throughout the lifespan. Emphasizing science, education, and the applications of scientific knowledge.



#### New Members Welcome!

INS welcomes new members! Prospective members may learn more about the Society and complete an online membership application at www.the-ins.org.

# **Benefits of Membership:**

- Discounted Registration & CE Rates: at our yearly meetings
- **Expand Your Network**: Meet and get to know fellow members from all over the globe by attending an INS meeting, or through the expanded INS website.
- INS Member Directory: Exclusive online access for members only
- **Discounted On-Demand CE Rates**: Read JINS article, listen to NavNeuro Podcast, or watch a Video Webinar.
- Free Electronic Access to JINS: Available ONLY to INS members! Electronic access to JINS includes all previous years of publication.
- **INS Newsletter Subscription**: Exclusively delivered to your inbox, and keeping you current with both INS news and Neuropsychology events from around the globe.
- Video Interviews of Leaders in Neuropsychology: Access the INS Video Archive Project interviews, featuring major thought leaders in the field for FREE.
- **INS Student Google Group**: INS Student Members network and communicate with exclusive access to the INS Student Community Group
- **Get Involved**: Become active with committees or board leadership, participate in Special Interest Groups (SIGs) and help guide the future of INS
- Be a Leader: Work with the INS SLC (Student Liaison Committee) or mentor a student intraining member
- Matthews Fund & Book Depository: Give back to your community and help support neuropsychology and educational programs in developing countries
- **Prestigious Awards**: Nominate or be recognized for work in the field of neuropsychological science and education
- Discounts & Offers on Videos, Books and Journals: INS Members get access to promotional codes for great publisher, journal and INS video discounts. Click for discount offers access.
- **Discounted Registration or CE at Related Meetings**: for other select meetings (e.g., International Brain Injury Association, Hispanic Neuropsychological Society)

For more information about INS, visit us at <u>www.the-ins.org</u>.



## **Future INS Meetings**

#### 2024 INS New York Meeting

New York City, New York USA | February 14 - 17, 2024

# 2024 Global Meeting – In collaboration with ASSBI, FESN and SLAN

Porto, Portugal | July 3 - 5, 2024

#### 2025 INS New Orleans Meeting

New Orleans, Louisiana USA | February 12 - 15, 2025

#### 2030 INS New Orleans Meeting

New Orleans, Louisiana USA | February 20 – 23, 2030



# **INS** Award

The International Neuropsychological Society's Awards Programme is intended to recognize the many achievements of accomplished INS members. Program and Student Research Awards are presented in order to recognize the most outstanding scientific contributions at the Annual and Mid-Year Meetings.

### **INS Early Career Achievement Award**

**INS Mid-Career Achievement Award** 

INS Lifetime of Achievement Award INS Distinguished Career Award

**INS Career Mentoring Award** 

**INS Post-Doc Fellow Research Award** 

**INS Graduate Student Research Award** 

**INS Memory Disorders Research Award** 

The INS Pediatric Research Award

**SLC Student Research Awards** 

**INS Travel Grant Awards** 



# About TANDMR



Taiwan Association of Neuropsychological Development and Mental Rehabilitation (TANDMR) is a non-profit association founded in 2016.

#### **Objectives:**

Based on evidence-based knowledge, we delicate to promote scientific, ecological and indigenous psychological researches within practicing. We advocate studies for the resilience and mental health of the community to make life quality better and improve individuals' well-being.

#### **Missions:**

- 01. To promote research related to psychological development and mental rehabilitation.
- 02. To promote clinical service with knowledge of psychological development and mental rehabilitation.
- 03. To publish publications about psychological development and mental rehabilitation, and to promote neuropsychological knowledge.
- 04. To strengthen the ability of Taiwanese enhancing well-being, and to promote relevant policies and welfare.
- 05. To disseminate knowledge through professional courses, conference meetings and activities.
- 06. To advocate neuropsychology-based public speech and activities.
- 07. To promote professional course and quality.
- 08. To establish policies related to professional ethics, supervision and arbitration.
- 09. Cooperation for neuropsychological development and mental rehabilitation related affair.
- 10. Arranging activities and work with objectives.



# **Co-organizers**



National Cheng Kung University



National Science and Technology Council



National Health Research Institutes



Ministry of Health and Welfare



Taiwan Pediatric Brain Tumor Consortium



Taiwan Neurological Society



Association of Taiwan Clinical Psychologists



Department of Information and Tourism, Taipei City Government



# **Program at a Glance**

### Toward Multi-Disciplinary Collaborations in Neuropsychology

#### July 6<sup>th</sup>, 2023 (Thursday)

Time	Lol	bby	Room 105	Room 101	Room 101 A	Room 101 B	Room 101 C	Room 101 D	Room 202A
08:30-9:30									
09:30-11:30			CE Workshop B: Social Cognition in Pediatric Neuropsychology Presenter: Nara Andrade						CE Workshop A: The principles of transcranial direct current stimulation (tDCS) and apply tDCS protocols for clinical treatment Presenter: Min- Fang Kuo
11:30-12:00				Pos	ter Sess	ion 1			
12:00-13:30	Registration	Exhibition & Preview Room	Pre-Opening Symposium: Healthy Aging: Brain and Mind Chair: Hsu Wen Huang Presenter: Yun-Hsuan Chang Yu-Ling Chang Wei-Ju Li						Pre-Opening Symposium: "Neuromodulation" Chair: Benjamin Hampstead Presenter: Benjamin Hampstead Michael Nitsche Shawn McClintock
13:30-14:00	on	ew Roo			Break				<u></u>
14:00-15:00		З		Opening Ceremony					
15:00-15:30				Co	offee Bro	eak			
15:30-16:30				Keynote Speech 1. Jonathan Evans: "Grand Challenges for Global Neuropsychology"					
16:30-17:30				Keynote Speech 2. Masaru Mimura: "Early Detection of MCI and Dementia"					
17:30-19:30					d Table I P. Room				



#### July 7<sup>th</sup>, 2023 (Friday)





#### July 7<sup>th</sup>, 2023 (Friday)

Time Lobby		Room 101 A	Room 101 B	Room 101 C	Room 101 D	Room 102						
12:30-14:00									Multiple Perspectives on Vascular Cognitive Impairment Chair:Yen-Hsuan Hsu Discussant: Yen-Hsuan Hsu Presenter: Min- Chien Tu, Li-Kai Huang, Yen-Hsuan Hsu, Hsin-Te Chang		Smartphones as a window into everyday brain health: applications of keystroke dynamics, ecological momentary assessment, and accelerometry Chair:Michelle Chen Discussant: Alex Leow Presenter: Tammy Chung, Andrea Cladek, Michelle Chen, Alex Leow	Advent of Clinical Neuropsychological Profession in the Asian Countries.: Japan, Taiwan, Malaysia, Indonesia, Macao and Thailand Moderator: Jonathan Evans Presenter: Nai- Wen Guo, Augustina Sulastri, Parisuth Sumransub, Sakamoto Pomeroy Maiko, Vigneswaran Veeramuthu, Lei Seng Hang
14:00-14:15					Break							
14:15-15:45	Exhibition& Preview Room Registration	Exhibition& Preview Room Registration	Paper Session 3. Sleep and Cognition related topics	PaperSession 4. Neuroimaging and Neuromodulation related topics	Paper Session 5 Intervention and Rehabilitation topics	Advancing Late- Life Depression Research: Neuropsychological and Al Modelling Studies Tatia Lee. Charlene Lam. Mengxia Gao Chih-Mao Huang	Asian Neuropsychology in the U.S.: Current State and Future Development Chair: Daryl Fujii Discussant: Chris Nguyen Presenter: Porrselvi AP, BaoChan Tran, Vigneswaran Veeramuthu, Wen- Yu Cheng					
15:45-16:00					Coffee Break							
16:00-17:30				CE Workshop D: Exploring the Past, Present, and Future of Cerebrovascular Disease & Cognitive Aging Presenter: Melissa Lamar	Paper Session 6 Language and Visual Function	Student's panel 1 Neuropsychology Training Pathways, Tips, and Tricks Panelists: Skye McDonald (Australia), Cady Block (US), Christopher Benjamin (US), Maiko Sakamoto (Japan)	Multicultural Neuropsychological Approaches to Test Development, Adaptation, and Data Collection. Chair: Jonathan Evans Discussant: Chris Nguyen Presenter: Chris Nguyen, Jon Evans, Porrselvi A.P. , Truc Tran Thanh Nguyen, Bob Bilder					
17:30-18:00												
18:00~			Night Market Tour									



## July 8<sup>th</sup>, 2023 (Saturday)

Time	Lobby	Room 101	Room 101 A	Room 101 B	Room 101 C	Room 101 D	Room 102	
08:30-09:00			Poster Session 4					
09:00-10:30	Ū	Ţ		Invited Symposium 1 Pediatric Brain Tumor Chair:Tai- Tong Wong Presenter: Stephen A. Sands Wan Ru Huang	Invited Symposium 2 Awake craniectomy Chair:Chi-Cheng Yang Presenter: Chi-Cheng Yang Vigneswaran Veeramuthu Ko-Ting Chen	Paper Session 7. Test development and adaptation	Paper Session 8. Social Cognition related topics	Student's panel 2 Rehabilitation Across the Lifespan Panelists: Prof Jonathan Evans (Scotland), Prof Vicki Anderson (Australia), Dr Rumi Tanemura (Japan), Prof Akira Midorikawa (Japan)
10:30-10:45	nibitior			Coffee Break				
10:45-12:15	Exhibition& Preview Room		"Invited Symposium 3 The Application of Clinical Neuropsychology in Epilepsy Medicine Chair:David W. Loring Presenter: David W. Loring Christopher Benjamin Hsiang-Yu Yu Wei-Han Wang"	Invited Symposium 4 Behavioral Neurology and Clinical Neuropsychology Presenter: Yi-Chien Liu Ming-Chyi Pai Yu-Wen Cheng Kai-Ming Jhang Jung Lung Hsu Yi-Chun Kuan	Paper Session 9 Aging and Alzheimer's disease related topics	Paper Session 10 Multicultural and diversity topics	Novel Guiding Concepts in Neuropsychological Rehabilitation Chair: Giles Yeates Discussant: Jonathan Evans Presenter: Giles Yeates, Christian salas	
12:15-13:30				Break				
13:30-14:30		Keynote Speech 5. Rumi Tanemura: "Friendly assistive technology for patients with cognitive impairments"						
14:30-15:30		Keynote Speech 6. Vicki Anderson: "Clinical Research in Child Brain Injury: Generating, Knowledge, Implementing Evidence, Improving Outcomes"						
15:30-15:40		Break						
15:40-17:00		Closing & Award Ceremony						
17:00-17:20		Break						
17:20-19:00		Gala Party						



## **Meeting Venue**

#### Taipei International Convention Center (TICC)

No. 1, Sec. 5, Xinyi Rd., Xinyi Dist., Taipei City, Taiwan (R.O.C.)





# Floor plan



https://www.ticc.com.tw/wSite/vr360/index.html



## Registration

The registration desk is located at the Lobby of Taipei International Convention Center (TICC) Level 1 main entrance. Please register and pick up your badge and collect the welcome bag when you arrive to the congress.

#### The registration fee includes:

Admittance to all main scientific sessions and exhibition. Meeting kit. Coffee breaks.

#### **Optional events:**

Round Table Chinese Food Dinner on 17:30-19:00 July 6<sup>th</sup>, 2023 Gala party on 17:20-18:00 July 8<sup>th</sup>,2023. Full-Day special event on 09:00-17:00 July 9<sup>th</sup>, 2023. Please check the registration platform if you are interested in these activities.

## **Meeting Events**

#### **Opening Ceremony**

Date: July, 6<sup>th</sup> Time: 14:00 - 15:00 (Taiwan local time) Location: 1F, Room 101, Taipei International Convention Center (TICC)

#### **Round Table Chinese Food Dinner (optional)**

Date: July, 6<sup>th</sup> Time: 17:30-19:30 (Taiwan local time) Location: 4F, VIP Rooms, Taipei International Convention Center (TICC)

#### Night Market Tour Guide (optional)

Date: July, 7<sup>th</sup> Assemble at the Registration counter before 18:00

### Award & Closing Ceremony

Date: July, 8<sup>th</sup> Time: 15:40 - 17:00 (Taiwan local time) Location: 1F, Room 101, Taipei International Convention Center (TICC)



### Gala Party (optional)

Date: July, 8<sup>th</sup> Time: 17:20 - 19:00 (Taiwan local time) Location: 1F, Room 101, Taipei International Convention Center (TICC)

## **Special Event**

#### **Post-conference Tours (optional)**

#### Beitou Park and National Palace Museum (1 day)

Date: July, 9<sup>th</sup> Time: 08:00 - 17:00 (Taiwan local time)

Date	Contents	Remark
08:00	Depart from TICC	
08:00-08:20	TICC to National Chiang Kai-shek	Tour Bus
08:20-08:50	National Chiang Kai-shek Memorial Hall	<u>National Chiang Kai-shek</u> <u>Memorial Hall</u>
08:50-09:40	Head to Beitou Park	Tour Bus
09:40-11:40	Beitou Park (Beitou Park integrates historical SItes, hot spring culture and natural scenery. We will visits Xinbeitou Station, Hot Spring Museum, Beitou Library. Geothermal Valley and other special attractions )	Beitou Park Beitou Hot Spring Museum Xinbeitou Historic Station Thermal Valley
11:40-12:10	Head to National Palace Museum	Tour Bus
12:10-13:30	Lunch (Silks Palace)	Silks Palace
13:30-16:00	National Palace Museum (Learn about the valuables of Chinese culture)	National Palace Museum
16:00-17:00	Return to TICC	Tour Bus

#### **Services included**

- All transportation mentioned above
- Lunch
- All entrance tickets
- English speaking guide
- Travel insurance



## Exhibition

Opening Hours (Taiwan local time): July 6<sup>th</sup> 09:30 - 17:30 July 7<sup>th</sup> 09:00 - 17:15 July 8<sup>th</sup> 09:00 - 13:30 Location: 1F Lobby, Taipei International Convention Center (TICC)

### Free Wi-Fi

The Taipei International Convention Center provides visitors with complimentary Wi-Fi throughout the building. To access the internet without password verification, visitors can simply activate the Wi-Fi function of their device and search for "TICC Free Wi-Fi".

#### **Presenter's information**

- 1. In consideration of intellectual property rights, the organizer of this conference does not handle the presentation files of the presenters. Reporters are requested to go to the public computer area (the middle area between the registration table and the display area) to take the test in advance. The specifications of these test computers are exactly the same as those of each venue, as follows. ACER I5-11300H/3.1GHz/512GB PCIe NVMe\_SSD/8GB DDR4/ GeForce GTX1650 GDDR6-4GB/15'6LED/resolution 1920\*1080/Win10 H 64bit/(AN515-56-58V1)/wired mouse//// office 2016 // potplayer // google Chrome //. The organizer of the conference strongly recommends that the reporter arrive at the venue ten minutes before the report session, put the report into the computer or use the flash drive to report, and take the flash drive after the end of the session.
- 2. Publishers of poster papers should arrive at the venue 20 minutes before the session and complete the posting 10 minutes before the official start. The Congress recommends that presenters be present to discuss with other researchers. Posters can be picked up after the publication period. If it is not picked up 30 minutes before the start of the next session, it will be sent to the service desk and destroyed after the conference.

#### Language

The official language of the meeting is English and no simultaneous translation is provided. This means that all the presentations and questions are to be in English.

### **Certificates of Attendance**

If you require a certificate documenting your attendance. The certificate will be send at the end of the congress by email.



The International Neuropsychological Society's Awards Programme is intended to recognize the many achievements of accomplished INS members.

The 2023 INS Awards Ceremony will be held on Saturday, July 8<sup>th</sup>, 2023, from 15:40 - 17:00 (Taiwan local time) at 3F, Plenary Hall, Taipei International Convention Center (TICC).

### 2023 INS Early Career Award

#### Dr. Shannon Scratch (CANADA)

Dr. Shannon Scratch is a Clinician Scientist at Holland Bloorview Kids Rehabilitation Hospital and Assistant Professor in the Department of Paediatrics and Rehabilitation Sciences Institute at the University of Toronto.



She is a practicing Clinical Neuropsychologist and her emerging research program and hospital clinic are dedicated to youth experiencing prolonged symptoms postconcussion and acquired brain injury, and their caregivers and families.

She holds foundation and tri-council funding and is especially interested in the development and testing of new interventions for these youths.

She holds the Holland Family Professorship in Acquired Brain Injury and is the director of the Neurehab Outcomes via Education & Learning (NOvEL) Lab.

She is passionate about fostering youth and family engagement in research and is the co-Chair of the Research Family Engagement Committee at Holland Bloorview.



### 2023 INS Distinguished Career Award

#### Dr. Mau-Sun Hua (TAIWAN)

Dr. Hua was born in 1951 and received most schooling, including the undergraduate one with Psychology major in Taiwan, and in 1977. He has gone on to graduate studies in the USA. His doctoral study has mostly focused on Clinical Neuropsychology under two main mentors, Drs. Charles Matthews (the ex-president of INS) and Cleeland since



1979. In 1984, Dr.Hua obtained the doctoral degree from University of Wisconsin-Madison, and then kept on receiving one-year postdoctoral trainings primarily on neuropsychology of dementia and traumatic brain Injury at Neuropsychology Clinic/Lab., Mount Sinai Medical Center-Milwaukee (mentor: Dr. Kerry deS Hamsher) and University of Texas Medical Branch at Galveston (mentor: the ex-president of our society, Dr. Harvey S. Levin) respectively.

In 1985, Dr.Hua was appointed a departmental chairperson at his homeland and started off his academic and clinical career in Clinical Neuropsychology at Department of Psychology, Chung-Yuan Christian University, and meanwhile at Neuropsychology Clinic (it is the first one in Taiwan which he set up for the clinical- neuropsychology practice), Department of Neurology, Chang-Gung Memorial Hospital-Linko, Taoyuan. In 1994, Dr.Hua was designated as a professor at Department of Psychology, National Taiwan University, and also as a joint-professor at both Departments of Neurology (another Neuropsychological Clinic/Lab. was also established there) and Psychiatry, National Taiwan University Hospital since then.

After the retirement from National Taiwan University in 2016, Dr.Hua was immediately nominated the Chair professor at Department of Psychology, Asia University, Taichung until 2021. Currently, Dr.Hua has been appointed an adjunct professor at Departments of Psychology and Neurology, National Taiwan University and the University Hospital respectively. With the exception of teaching, Dr.Hua has done his best to maximize a researcher-practitioner role in Neuropsychology. He is the ex-presidents of both Taiwan Psychological Association and Taiwan Association of Clinical Psychology. The exploration of neuropsychological function in aging, particularly seeking potential cognitive markers early detecting dementia with brain disease has been his research interest.

Dr.Hua have also positively participated in the reviewing issues of the periodical-journal articles, such as having been the former editor-in-chief of Archives of Clinical Psychology and the editorial board members of Chinese Journal of Psychology and Acta Neurologica Taiwanica, as well as the current editorial-board member of Epilepsy and Behavior.



#### **INS Graduate Student Research Award**

This award is given at the Society's Annual and Mid-Year Meetings to recognize the best research presented by a graduate student. The recipient is selected at the discretion of each Meeting Program Chair.

# Characterising phonemic fluency by transfer learning with deep language models

Joseph Mole, Amy Nelson, Edgar Chan, Lisa Cipolotti, Parashkev Nachev

#### **INS Memory Disorders Research Award**

This award is given at the Society's Annual and Mid-Year Meetings for the best research presented in the area of memory or memory disorders. The recipient is selected at the discretion of each Program Chair.

# Age-related differences in hippocampal subfield volumes are linked to associative memory recognition

Ya-Mei Lai, Yu-Ling Chang

#### **INS Marit Pediatric Neuropsychology Award**

This award is given for the most outstanding student contribution at the Mid-Year Meeting on a topic in pediatric neuropsychology. The winner is selected at the discretion of the Mid-Year Program Chair.

# Looking into puberty, brain network connectivity and executive functions following pediatric traumatic brain injury in females: Preliminary results

Tamar Silberg, Yael Golan, Reut Raizman, Moran Shectman, Hadar Shapsa, Galia Tsarfaty, Neta Erez, Jana Landa, Abigail Livny



#### **Student Liaison Committee Student Research Award**

# Amygdala subregional volumes in frontotemporal dementia and Alzheimer's disease and their associations with social cognitive deficits

Mengjie Huang, Ramon Landin-Romero, Marshall Dalton, Olivier Piguet

#### Profiles and predictors of social functioning in dementia syndromes

Grace Wei, Kirrie Ballard, Olivier Piguet, Fiona Kumfor

# Resting-state functional connectivity associated with postoperative cognitive function and white matter tract disconnection in patients with brain tumors

Kota Ebina, Mie Matsui, Kinoshita Masashi, Daisuke Saito, Yuta Takiguchi, Mitsutoshi Nakada

# Utilizing race-adjusted versus non-race adjusted normative data for diagnosis of mild cognitive impairment (MCI) in demographically-diverse community dwelling individuals

Katherine Chang, Cuiling Wang, Mindy Katz, Desiree Byrd, Laura Rabin

Planning ability and working memory at pre-school age can be mediators among the relationship between congenital risk factors and adaptive behaviors on preterm children

Peng-Chen Chen, Nai-Wen Guo, Shi-Wen Lee, Yi-Le Chou, Yung-Hsien Liu, Yu-Hsuan Chien, Chia-Jung Chiang, Jen-Shen Chang



### Grand Challenges for Global Neuropsychology

Thursday, July 6<sup>th</sup>, 15:30-16:30 Room 101

#### Jonathan Evans, Ph.D

Professor of Clinical Neuropsychology, University of Glasgow, UK



#### Bio

Jon Evans is Professor of Clinical Neuropsychology at the University of Glasgow and honorary Consultant Clinical Psychologist with NHS Greater Glasgow and Clyde. Jon was the first Clinical Director of the Oliver Zangwill Centre for Neuropsychological Rehabilitation in Ely, Cambridgeshire. He is now Programme Director for Clinical Neuropsychology training programmes at the University of Glasgow.

Jon has published more than 200 papers, books and book chapters in the field of cognitive neuropsychology, neuropsychological assessment and rehabilitation. He has received several awards from the British Psychological Society including the May Davidson Award (for clinical psychologists who have made an outstanding contribution to the development of clinical psychology within 10 years of qualification); the Barbara Wilson Lifetime Achievement Award (for outstanding contribution to clinical neuropsychology in the UK) and the M.B Shapiro award (a late career award for clinical psychologists who have achieved eminence in their field).

Jon has been a member of INS for more than 20 years. In 2015 he was elected to the Board of Directors, and took on the role of Chair of the International Liaison Committee (ILC), which is now the Global Engagement Committee (GEC). Jon was responsible for re-establishing the Charles Matthews Fund Workshop Program, which has seen educational workshops run in India, Chile, Argentina, Lithuania, Thailand, Botswana, the Philippines, and Grenada in recent years. In 2020 Jon was elected to the presidency of INS, with his presidency commencing in February 2023.

#### Abstract Grand Challenges for Global Neuropsychology

Neuropsychology is a force for good, and is meeting the needs of many people in our communities with conditions that affect brain function. But not everyone who could benefit is benefiting from what neuropsychology has to offer. We can do better, and in this presentation I will discuss some of the grand challenges facing neuropsychology in a global context and some ways we can better serve our global community.

INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



Globalization impacts many aspects of our lives but for neuropsychology it is relevant in several ways. Migration has meant that many countries of the world that were largely monocultural are now multi-cultural and multi-lingual. In parts of the world where neuropsychology is less well-established, there is a growing need for neuropsychological services. In both contexts we need tools to help us assess cognition, and this often requires adaptation of existing tools developed in other cultural/linguistic contexts. I will discuss the importance of decisions regarding translating, adapting or developing tools and discuss work undertaken by a workgroup of the INS Cross-Cultural Special Interest Group to annotate international test adaptation guidelines for neuropsychology. I will also discuss a new framework that reconceptualises cognitive assessment tools along a seven-dimensional continuum, highlighting gaps in tools that assess cognition in natural settings.

Another grand challenge for neuropsychology is to improve use of neuropsychological knowledge for rehabilitation of people with cognitive impairment. I will discuss the current state of neuropsychological rehabilitation science, our key knowledge gaps, and what is needed to ensure that the principles and practice of neuropsychological rehabilitation can be applied to reduce inequity of access around the world.



#### **Early Detection of MCI and Dementia**

Thursday, July 6<sup>th</sup>, 16:30-17:30 Room 101

#### Masaru Mimura, M.D., Ph.D

Professor and Chairperson of Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan



Dr. Mimura is Professor and Chairperson of Department of Neuropsychiatry, Keio University School of Medicine, Tokyo, Japan since 2011. He is also Director of Memory Center, Director of Stress Research Center, Director of Kampo Medical Science Research, and Vice Director of Super-Centenarian Research Center of Keio University. Dr. Mimura is President of Japan Society of Higher Brain Dysfunction, and Vice-President of Japanese Society of Psychogeriatrics. He is a member of Board of Directors of Neuropsychology Association of Japan, Japan Society for Dementia Research, Japanese Society of Psychiatry and Neurology, Japanese Society of Mood Disorder, and Japanese Society of Schizophrenia Research.

Dr. Mimura graduated from Keio University School of Medicine, Tokyo in 1984. He received Ph.D. in 1992 from Keio University. Dr. Mimura worked as Research Fellow in Behavioral Neurology Department, Boston University School of Medicine (Chief, Dr. Martin L. Albert), Aphasia Research Center (Director, Harold Goodglass) and Memory Disorders Research Center (Director, Laired Cermak). During 1994-1999, he worked as Assistant Professor, Department of Neuropsychiatry, Tokyo Dental College Ichikawa General Hospital, Chiba, Japan. During 1999-2011, he worked as Associate Professor, Department of Neuropsychiatry, Showa University School of Medicine, Tokyo, Japan. His main research interest is in geriatric psychiatry including dementia and late-life depression. He is also interested in neuropsychological studies of persons with brain damage and organic mental disorders. He has currently published more than 600 peer-reviewed papers.

#### Abstract **Early Detection of MCI and Dementia**

Early detection of Alzheimer's disease (AD) including mild cognitive impairment (MCI) due to AD is of critical importance. This is because early detection enables the persons with AD to plan and discuss their future life, and receive appropriate psychological, physical and social support. In addition, early detection of AD is crucial when considering the recent advances and clinical availability of disease modifying drugs and preemptive medicine for AD. It is worthless to say that mental state examination including neuropsychological assessment and clinical observation is of top primary for early detection of AD. However, individuals in the very



early stage of AD usually present with no or little cognitive abnormality. Here, I would like to emphasize three different types of biomarkers, which are useful to detect early/ very early stage of AD.

#### 1 Neuroimaging biomarkers using Positron Emission Tomography (PET):

Amyloid deposition is a neuropathological hallmark of AD and a number of amyloid targeted ligands have enabled to visualize it in the brains of living individuals. In Keio University, 18F-Florbetaben is used to differentiate AD-related amyloid pathology (Funaki et al., 2019). In addition, we demonstrated that tau PET using 18F-PI-2620 and 18F-PM-PBB3 (Florzolotau) is important to differentiate AD from non-AD cognitive disorders including behavioral variant of frontotemporal dementia, corticobasal degeneration and progressive supranuclear palsy (Ishizuchi et al., 2021; Mashima et al., 2021; Tezuka et al., 2021; Momota et al., 2022). In fact, amyloid and tau PET had a great impact on changes in diagnosis and patient management of persons with neurocognitive disorder (Shimohama et al., 2022). Interestingly, tau PET with 11C-PBB3 or 18F-PM-PBB3 demonstrated the evidence of tauopathy in traumatic brain injury (Takahata et al., 2019) and geriatric psychiatric disorders such as late-life depression and late-life delusional disorders (Moriguchi et al., 2021).

#### 2 Plasma biomarkers:

Various soluble proteins including phosphorylated tau 181 (p-tau181) and p-tau217 are known to reflect amyloid burden. Neurofilament light chain (NfL) is another plasma biomarker known to detect neurodegeneration and is useful to differentiate AD from non-AD neurodegeneration. Our Japanese sample of 92 individuals showed that two p-tau181 cut-offs (i.e., high and low cut-off) and one NfL cut-off were the best combination to predict amyloid  $\beta$  (A $\beta$ ) positivity (Bun et al., 2022). In addition, plasma A $\beta$  42/40 alone also revealed high sensitivity and specificity. These plasma biomarkers are considered as a promising tool for screening AD in the early stage, specifically taking cost-effectiveness into consideration.

#### 3 Aβ identification by MRI:

We used the gray matter volume (GMV) data from MRI and applied to analyses using artificial intelligence (AI). AI-assisted GMV information differentiated A $\beta$  positivity by approximately 85%. This number increased up to nearly 90% when used the results of cognitive tests and APOE information (Momota et al., submitted). This AI-assisted GMV information may also be useful in the future clinical setting to detect A $\beta$  positivity in the early clinical settings of AD.



# Paradoxical functional facilitation in various brain injuries and diseases

Friday, July 7<sup>th</sup>, 9:00-10:00 Room 101

#### Akira Midorikawa, Ph.D

Professor of Psychology, Chuo University, Japan



#### Bio

Akira Midorikawa is a professor of psychology at Chuo University, Tokyo, Japan. He received PhD from Chuo University in 2002 under Prof. K. Amano who was a follower of the Russian neuropsychologist, A.R. Luria. He is certified by the Foundation of the Japanese Certification Board for Clinical Psychologists and a registered psychologist in Japan.

He has been a member and is the former chair of the Japanese Committee of Clinical Neuropsychologists and has been involved in the establishment of the licensing and education system for clinical neuropsychologists in Japan. He has been a board member of the Neuropsychology Association of Japan and a council member of the Japan Society for Higher Brain Dysfunction (JSHBD). He is on the editorial board of Japanese Journal of Neuropsychology, Higher Brain Function Research and Brain Impairment. His research focus is positive aspects of cognitive functions after brain impairment.

## Abstract

#### Paradoxical functional facilitation in various brain injuries and diseases

Although brain damage usually results in a decrement in function, in rare cases it can lead to improved function. This phenomenon is referred to as paradoxical functional facilitation (PFF) (Kapur, 1996).

In this talk, I will present two types of PFF resulting from brain injury. The first is the phenomenon of functional enhancement at the cognitive level. An outstanding example of cognitive PFF is the observation of improved drawing aptitude, along with increased visuospatial ability, in dementia patients after disease onset. Most documented cases of improved drawing ability occurred in individuals with dementia and associated language dysfunction. Although the visuospatial improvement occurred in a certain ratio of patients with dementia who showed language dysfunction. Although it is difficult to perform long-term follow-up assessments of drawing behavior in dementia patients due to their pathology, in the case of traumatic brain injury, patients rarely show improved drawing ability or developments in artistic expression.



The other type of PFF is observed at a perceptual level and is characterized by sensory hypersensitivity. hypersensitivity is a well-known symptom in autistic populations and is also common in individuals with brain injury or dementia. In dementia patients, hypersensitivity seems to increase with disease progression, regardless of the type of pathology. Hypersensitivity also occurs in subjects with brain tumors, and manifests in various modalities.

This talk will discuss the mechanisms of cognitive and perceptual PFF and their psychological effects.





#### Napping: A Contemporary Review of an Age Old Practice

Friday, July 7<sup>th</sup>, 10:30-11:30 Room 101

#### Michael Chee Wei Liang, M.D., Ph.D

Professor and Director of the Centre for Sleep and Cognition, National University of Singapore, Singapore

#### Bio



Michael Chee graduated with a MBBS from NUS in 1983, followed by internal medicine training and was awarded a MRCP (UK) in 1987.

He underwent further training in neurology and was a fellow in Epilepsy and Clinical Neurophysiology at The Cleveland Clinic Foundation. He transitioned into becoming a cognitive neuroscientist in 1996. He is pioneer clinician scientist in Singapore and contributed seminal functional neuroimaging studies on English-Chinese bilinguals before falling into his lifelong passion of harnessing neuroscience to optimize human cognitive performance through improving sleep. His present work is focused on 1) alleviating the negative impact of sleep deprivation on cognitive performance, wellbeing and health and 2) modulating cognitive aging particularly in East Asians. Both thematic areas involve harnessing neuroscience to understand the mechanisms underlying performance degradation and to use such knowledge to implement interventions in currently healthy persons, to avert negative health later. He organized Asia's only 10+-year long longitudinal brain aging study and 4 editions of the adolescent 'Need for Sleep studies'.

His 200+ publications include contributions to PNAS, Neuron, J Neuroscience, Am J Psychiatry, Neurology, Sleep and NeuroImage. He has been a plenary speaker at World Sleep, a minisymposium speaker at the Society of Neuroscience Annual Meeting. Dr. Chee raised over \$50 million dollars of research funding as principal investigator, receiving support from the NIH, SAF and several philanthropists in addition to traditional sources of funding. He received the National Outstanding Clinician Scientist Award (2009), and the Singapore Translational Research Investigatorship (2007,2013). He sits on the editorial boards of Sleep, NeuroImage and Current Opinion in Behavioral Sciences.

He is a F1000 Faculty member and has played an active role in the Organization for Human Brain Mapping having been the organizing chair for its 2018 Annual Meeting. He has written numerous commentaries on sleep and public health and has appeared on television, internet and international print media in relation to his advocacy work for sleep and his work has been cited by Time, The Guardian, the Economist and other influential lay press publications. He has trained over 80 research staff including 1 Associate Professor, 8 Assistant Professors, several research fellows, medical doctors, clinical psychologists and founders of two tech start-ups.

#### INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



#### Abstract Napping: A Contemporary Review of an Age Old Practice

Naps refer to sleep outside the habitual main nocturnal sleep period. Their practice in childhood is universal and they were a common part of the daily routine for working-age adults in many Asian, Mediterranean and Middle Eastern cultures for centuries. Rapid urbanization and industrialization reduced napping in working adults but the practice has made a comeback in recent years on account of non-traditional sleep schedules. Geographical differences in attitudes to napping in adults colour how research on naps is designed and interpreted. Laboratory studies on napping have found that they boost cognition and mood post naps across several cognitive domains. The domains benefiting from napping and the duration of naps to recommend are of interest as are the underlying mechanisms for these benefits. The impact of nocturnal sleep preceding and following days when we nap are important. Naps in the post-retirement age may be less innocuous but this depends on what we consider 'naps' and how long these periods of sleep are. An even deeper understanding of naps, their benefits and impact on health and wellbeing awaits further developments in integration of consumer health tracking technology and innovative ways of passively evaluating cognition.


# Friendly assistive technology for patients with cognitive impairments

Saturday, July 8<sup>th</sup>, 13:30-14:30 Room 101

#### Rumi Tanemura, Ph.D

Department of Rehabilitation, Kansai Medical University, Osaka, Japan



Dr. Rumi Tanemura is a professor and the head of the Division of Occupational Therapy at Kansai Medical University. She received her M.S. in Health Science from Hiroshima University in 1999 and her Ph.D. in Health Science from Hiroshima University in 2003. She was inaugurated as an associate professor in the Faculty of Health Sciences at Kyoto University. She moved to Kobe University as a professor in 2009, where she was a vice dean for ten years and the director of the Frontier Center for Asian Health Sciences until 2023.

#### Abstract

#### Friendly assistive technology for patients with cognitive impairments

People with dementia and higher brain dysfunction show a great deal of disability in their lives. Therefore, we are working on the development of assistive technology (AT) that is gentle on cognitive decline so that even those with cognitive problems can improve their own home life problems. As basic data, 44 healthy elderly people, 13 day-service users, 30 people with dementia, and 25 people with higher brain dysfunction were asked to use the Everyday Technology Use Questionnaire (Nygård L) to examine their daily use of home appliances. There was a clear difference in the ETs that were difficult to use between the healthy elderly and those with dementia. The ETs that were difficult to use were extensive in the dementia group, but the ETs that were difficult to use were active such as using PCs and credit cards in the healthy elderly. The common difficulty in each group was the TV remote controller. Therefore, we will investigate individual problems and introduce some specific ATs that aim to solve them.

#### 1. Memory impairment assistance application "Arata":

This application includes calendar, schedule, memo, face and name association, diary, etc. In addition, we developed a bathing procedure application, a dressing procedure application, and a working version ARATA. I'll introduce some cases of trial use in this lecture.

#### 2. Wandering prevention sensor "Argus":

When a case with frontal lobe damage saw the front door, she would go out all day and night. Her husband always had to keep an eye on her. Therefore, we developed Argus for her and she was able to return to her room prompted by the voice of the sensor within 2 weeks.



#### 3. Easy TV remote controller and multi-TV remote controller "Trinity":

The most difficult issue in the ETUQ research was that even healthy elderly people were confused by many buttons of TV remote controller, and people with dementia were confused with other remote controllers. Therefore, we made a remote control cover that hides a lot of buttons and exposes only the volume, channel and power. Using this easy remote controller, a patient with USN and a patient with dementia were able to watch TV without assistance. In addition, we developed a triangular independent remote controller that integrates three functions for lighting, TV, and air conditioner to prevent confusion caused by multiple remote controllers.

In this way, friendly ATs that can help with various problems in life are useful.





#### Clinical Research in Child Brain Injury: Generating Knowledge, Implementing Evidence, Improving Outcomes

Saturday, July 8<sup>th</sup>, 14:30-15:30 Room 101

#### Vicki Anderson, Ph.D



Director, Psychology, Royal Children's Hospital Director, Clinical Sciences Research, Murdoch Children's Research Institute Melbourne, Australia

#### Bio

Dr Anderson is Director, Clinical Sciences Research, Murdoch Children's Research Institute, Head, Psychology, The RCH, Past President of the International Neuropsychological Society.

Her research and clinical interests are in disorders of childhood that impact on the brain, including both developmental and acquired disorders. Her recent work has focussed on translating her early career findings into clinical practice to optimise child outcomes from brain injury. Major translational achievements include: i) publication of the Test of Everyday Attention for Children; ii) development of easily accessed, low burden, e-health approaches to parent-focused psychosocial treatments to maximise child outcomes; iii) development of a novel, comprehensive iPad delivered assessment tool for social competence (PEERs: patent pending); iv) digital health tools for monitoring child post concussion symptoms (endorsed in a partnership with the Australian Football league); and v) authorship of the first-ever international paediatric sports concussion guidelines of the International Consensus on Sports Concussion.

#### Abstract Clinical Research in Child Brain Injury: Generating Knowledge, Implementing Evidence, Improving Outcomes

The research landscape in child neuropsychology has changed dramatically over recent decades with the ever-growing opportunities facilitated by increasingly sophisticated technologies and statistical approaches, and complexity of governance and funding requirements, coupled with a relatively recent acknowledgement of the need to consider the impact of what we study and whether it addresses concerns that are shared by clinicians, patients and consumers.



Over the past 20 years, along with others internationally, the Melbourne Children's Brain and Mind team has explored the impact of early child brain insult through studies which have followed children from the time of their brain insult as they move from infancy and childhood, through to adolescence and into adulthood. This presentation will outline: i) findings from our early research investigating outcomes across multiple functional domains (cognitive, social, psychological) and the biological, developmental and environmental mechanisms that contribute to these outcomes; ii) our more recent work translating these findings into clinical practice through the design and development of new assessment tools and novel therapeutic interventions specific to children with early brain insult and their families; and iii) consider whether research in the field has been impactful at a scientific level and if it has impacted the outcomes survivors of early brain insult.





## **CE Workshop A**

# The principles of transcranial direct current stimulation (tDCS) and apply tDCS protocols for clinical treatment.

#### Min-Fang Kuo, PhD

Senior research scientist Leibniz Centre for Working Environment and Human Factors, Germany



Thursday, July 6<sup>th</sup>, 09:30-11:30 Room 202 A Credit Hours:2 Level of Instruction: Intermediate

#### Abstract & Learning Objectives:

The course introduces the fundamental principles of tDCS, including the delivery of weak electrical currents to specific brain areas for modulating neuronal activity. Participants gain insights into the mechanisms by which tDCS influences brain plasticity and neurophysiological processes. The basic settings of tDCS are explored, emphasizing electrode placement, current intensity, duration, and polarity. Participants learn how these parameters impact outcomes and ensure safe administration of tDCS protocols. The course focuses on practical applications of tDCS in clinical treatment. It examines conditions such as depression, chronic pain, stroke rehabilitation, and cognitive disorders, where tDCS has shown promise. Participants learn specific tDCS protocols employed in these settings and the evidence supporting their efficacy and safety.

#### Upon conclusion of this course, learners will be able to:

- 1. Explain the principles of transcranial direct current stimulation (tDCS)
- 2. Describe the basic settings of tDCS
- 3. Apply tDCS protocols for clinical treatment



## **CE Workshop A**

#### Speaker Biography:

Min-Fang Kuo is a senior research scientist at the Leibniz Research Centre for Working Environment and Human Factors in Dortmund, Germany, with the focus on clinical and cognitive neuroscience involving non-invasive brain stimulation, particularly on motor and cognitive functions. She received her degree in medicine from National Cheng-Kung University in Taiwan in 2002, and her PhD in neuroscience from University of Göttingen in Germany in 2007. She then completed postdoctoral fellowships at Harvard Medical School and University of Göttingen, before joining the faculty in the Department of Psychology and Neurosciences at the Leibniz Research Centre in Dortmund, Germany in 2015.

She has been involved in research into the physiology of neuroplasticity in humans with noninvasive techniques such as transcranial magnetic and electric stimulations, as well as neuroimaging tools including MRI and EEG. The modulatory mechanisms via neurochemistry underlying plasticity and associated brain functions are particularly explored using pharmacological approach. Additionally, her research involves studies on the effects of cognitive and motor training on physical and mental health, with the potential clinical applications to aged, neurologically impaired and psychiatric populations.

She is the author of numerous research papers, book chapters and reviews, and currently the recipient of research grants from the Federal Ministry of Education and Research, the German Research Foundation, and the consortium projects of European Research Council.

#### **Bibliography:**

- Woods, A. W., Antal, A., Bikson, M., Boggio, P. S., Brunoni, A. R., Celnik, P., Cohen, L. F., Fregni, F., Herrmann, C., Kappenman, E. S., Knotkova, H., Liebetanz, D., Miniussi, C., Miranda, P. M. A., Paulus, W., Reato, D., Stagg, C. J., Wenderoth, N., & Nitsche, M. A. (2016). A technical guide to tDCS, and related non-invasive brain stimulation tools. *Clinical Neurophysiology*, 127(2), 1031–1048. <u>https://doi.org/10.1016/j.clinph.2015.11.012</u>
- 2. Polania, R., Nitsche, M. A., & Ruff, C. C. (2018). Studying and modifying brain function with non-invasive brain stimulation. *Nature Neuroscience*, 21(2), 174–187. <u>https://doi.org/10.1038/s41593-017-0054-4</u>
- 3. Kuo, M., Paulus, W., & Nitsche, M. A. (2014). Therapeutic effects of non-invasive brain stimulation with direct currents (tDCS) in neuropsychiatric diseases. *NeuroImage*, 85, 948–960. <u>https://doi.org/10.1016/j.neuroimage.2013.05.117</u>



## **CE Workshop B**

### Social Cognition in Pediatric Neuropsychology

#### Nara Andrade, PhD

Professor Juiz de Fora Federal University, Brazil



Thursday, July 6<sup>th</sup>, 09:30-11:30 Room 105 Credit Hours: 2 Level of Instruction: Intermediate

#### Abstract & Learning Objectives:

Social cognitive skills are rooted in the propensity to engage with others, learn from them, and use acquired social information to effectively deal with the social world and relationships. Theoretical models have been proposed to explain structure and components of these skills and empirical evidence from social and affective neuroscience supports the neuroanatomical and neurofunctional basis of a 'social brain'. In the neurodevelopment course, the brain-behavioral relationships underlying social functioning may be impaired, altering the delicate balance between developmental contexts, cognitive, socio-emotional and brain processes that underlie social competence. Adversities experienced during childhood can have lasting influences on the development of social and emotional skills. Furthermore, understanding social and emotional phenotypes in populations with neurodevelopmental disorders and genetic syndromes contribute to developing effective evidence-based interventions. This seminar will provide an update of the scientific literature to discuss how the constructs and neurobiological basis of social cognition could be translated into practical applications of this knowledge to neuropsychological assessment. Assessment measures will be addressed, including discussion of their potential and limitations.

#### Upon conclusion of this course, learners will be able to:

- 1. Describe key aspects of social cognition theories and models.
- 2. Discuss social brain in neurodevelopmental disorders and genetic syndromes.
- 3. Demonstrate application to clinical practice in the assessment of social cognition in the pediatric population.



## **CE Workshop B**

#### Speaker Biography:

Nara Andrade is Professor and Chair for Developmental Neuropsychology at the Juiz de Fora Federal University. She is also an associate researcher at Harvard University. Nara Andrade received a Ph.D. in Experimental Psychology from University of São Paulo, completed a master's in Developmental Neuropsychology at the Federal University of Bahia and a postdoctoral research program at Harvard University. She has been serving in leadership positions in professional organizations in neuropsychology, such as the International Neuropsychological Society (INS), Latin American Neuropsychological Society (SLAN, Brazil representative) and Neuropsychology Committee of the National Association of Research and Graduate Studies in Psychology (ANPEPP), Brazil. She is currently Editor-in-Chief of the journal "Revista Neuropsicología Latinoamericana" and consulting editor of the Neuropsychology Journal (APA). Her research focuses on developmental neuropsychology from infancy to adolescence, addressing topics such as social cognition, emotion, communication and the neuroscience of adversity, analyzing vulnerability and protection factors in typical and atypical development.

#### **Bibliography:**

- 1. Happé, F., Cook, J. L., & Bird, G. (2017). The Structure of Social Cognition: In(ter)dependence of Sociocognitive Processes. *Annual Review of Psychology*, 68(September 2016), 243–267. https://doi.org/10.1146/annurev-psych-010416-044046
- 2. Wellman, H. M. (2018). Theory of mind: The state of the art<sup>\*</sup>. European Journal of Developmental Psychology. <u>https://doi.org/10.1080/17405629.2018.1435413</u>
- 3. Kennedy, D. P., & Adolphs, R. (2012). The social brain in psychiatric and neurological disorders. *Trends in Cognitive Sciences*, 16(11), 559–572. <u>https://doi.org/10.1016/j.tics.2012.09.006</u>
- McLaughlin, K. A., Weissman, D., & Bitrán, D. (2019). Childhood Adversity and Neural Development: A Systematic Review. Annual Review of Developmental Psychology, 1(1), 277– 312. <u>https://doi.org/10.1146/annurev-devpsych-121318-084950</u>
- 5. Järvinen, A., Korenberg, J. R., & Bellugi, U. (2013). The social phenotype of Williams syndrome. *Current Opinion in Neurobiology*, 23(3), 414–422. <u>https://doi.org/10.1016/j.conb.2012.12.006</u>
- 6. Patriquin, M. A., Deramus, T., Libero, L. E., Laird, A., & Kana, R. K. (2016). Neuroanatomical and Neurofunctional Markers of Social Cognition in Autism Spectrum Disorder. 3978(June), 3957–3978. <u>https://doi.org/10.1002/hbm.23288</u>
- 7. Thompson, E. J., Beauchamp, M. H., Darling, S. J., Hearps, S. J. C., Brown, A., Charalambous, G., Crossley, L., Darby, D., Dooley, J. J., Greenham, M., Jaimangal, M., McDonald, S., Muscara, F., Turkstra, L., & Anderson, V. A. (2018). Protocol for a prospective, school-based standardisation study of a digital social skills assessment tool for children: The Paediatric Evaluation of Emotions, Relationships, and Socialisation (PEERS) *study. BMJ Open*, 8(2), 1–12. https://doi.org/10.1136/bmjopen-2017-016633
- 8. Beaudoin, C., Leblanc, É., Gagner, C., & Beauchamp, M. H. (2020). Systematic Review and Inventory of Theory of Mind Measures for Young Children. In *Frontiers in Psychology* (Vol. 10). Frontiers Media S.A. <u>https://doi.org/10.3389/fpsyg.2019.02905</u>



## **CE Workshop D**

#### Exploring the Past, Present, and Future of Cerebrovascular Disease & Cognitive Aging

#### Melissa Lamar, PhD

Rush Alzheimer's Disease Center, Rush University Medical Center, Chicago, Illinois, USA



Friday, July 7<sup>th</sup>, 16:00-17:30 Room 101 B Credit Hours: 2 Level of Instruction: Intermediate

#### bstract & Learning Objectives:

Cerebrovascular disease in the form of tissue damage and/or vessel disease may be found in the majority of older adult brains at autopsy, it disproportionately affects ethnoracial communities, and has been shown to have some modifiable risk factors. This course will outline the historical trajectory of our understanding of cerebrovascular disease generally, and its relationship to cognitive aging more specifically. We will also discuss recent advances in interrogating cerebrovascular disease in vivo (including methods freely available for use in research or clinical practice) as well as where the field is heading in terms of ante mortem and post mortem study.

#### Upon conclusion of this course, learners will be able to:

- 1. Identify early contributors to the field of cerebrovascular disease and describe their contributions
- 2. Describe recent advances in interrogating cerebrovascular disease in vivo and how they may be used in practice
- 3. Discuss future directions for the field of cerebrovascular disease and cognitive aging and how interested parties can contribute



## **CE Workshop D**

#### Speaker Biography:

Melissa Lamar, PhD, is a Professor in the Department of Psychiatry and Behavioral Sciences at Rush University Medical Center, and a Clinical Neuropsychologist in the Rush Alzheimer's Disease Center. She received her PhD in Clinical Neuropsychology from Drexel University and completed her postdoctoral training in Cognitive Neuroscience within the intramural program of the Laboratory of Behavioral Neurosciences at the National Institute on Aging. She worked at the Institute of Psychiatry King's College London and the University of Illinois at Chicago prior to joining the Rush faculty in 2016. Her research focuses on cardiovascular, cognitive and brain aging with a particular focus on Hispanic/Latino and African American adults. Dr. Lamar combines traditional and digital cognitive assessments with novel neuroimaging and data analytic techniques to detect subtle alterations in behavior and pin-point their roots in brain. The ultimate goal of her work is to identify modifiable factors for use in interventions to increase health equity in brain aging. Dr. Lamar has published extensively on brainbehavior profiles of risk and resilience to Alzheimer's disease and related dementias including cerebrovascular disease, and has received numerous honors and awards including Fellows status of the American Psychological Association and the Arthur Benton Award for Mid-Career Research from the International Neuropsychological Society.

#### **Bibliography:**

- 1. Wardlaw JM, Smith EE, Biessels GJ, Cordonnier C, Fazekas F, Frayne R, Lindley RI, O'Brien JT et al on behalf of Standards for Reporting Vascular changes on nEuroimaging (STRIVE v1). Neuroimaging standards for research into small vessel disease and its contributions to ageing and neurodegeneration. Lancet Neurology, 12(8), 822-838. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3714437/</u>
- 2. Skrobot OA, Black SE, Chen C, DeCarli C, Erkinjuntti T, Ford GA, Kalaria RN, O'Brien J, Pantoni L, Pasquier F, Roman GC, Wallin A, Sachdev P, Skoog I, VICCCS group, Ben-Shlomo Y, Passmore AP, Love S & Kehoe PG (2018). Progress toward standardized diagnosis of vascular cognitive impairment: Guidelines from the Vascular Impairment of Cognition Classification Consensus Study (VICCCS). Alzheimer's & Dementia, 14(3), 280-292. <u>https://pubmed.ncbi.</u> <u>nlm.nih.gov/29055812/</u>
- 3. Makkinejad N, Evia AM, Tamhane A, Javierre-Petit C, Leurgans SE, Lamar M, Bennett DA, Schneider JA, & Arfanakis K (2021). ARTS: A Novel In-vivo Classifier of Arteriolosclerosis for the Older Adult Brain. NeuroImage: Clinical, 31, 102768. <u>https://www.ncbi.nlm.nih.gov/pmc/ articles/PMC8329541/pdf/main.pdf</u>
- 4. Lamar M, Leurgans SE, Kapasi A, Barnes LL, Boyle PA, Bennett DA, Arfanakis K & Schneider JA (2022). Complex profiles of cerebrovascular disease neuropathologies in the aging brain and their relationship with cognitive decline. Stroke, 53(1), 218-227. <u>https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8712368/pdf/nihms-1739296.pdf</u>



## **Pre-Opening Symposium**

### Neuromodulation

#### July 6<sup>th</sup>, 2023 (Thursday) 12:00-13:30, Room 202 A

Moderator: Benjamin Hampstead Chair: Benjamin Hampstead

#### SYMPOSIUM SUMMARY

Neuromodulation can directly target brain regions and networks associated with cognitive, emotional, and functional impairment. Perhaps not surprisingly, there is increasing evidence supporting the efficacy of neuromodulation across a variety of populations. This symposium focuses on two especially promising approaches that highlight this novel treatment potential. First, Dr. Shawn McClintock will discuss magnetic seizure therapy (MST) for psychiatric disorders. Then, Dr. Benjamin Hampstead will review transcranial direct current stimulation (tDCS) for cognitive impairment in older adults across the dementia spectrum. Finally, Dr. Michael Nitsche will review medications that may facilitate or impede the effects of neuromodulation. Each speaker will briefly review common methods and highlight knowledge gaps that are vital for clinical translation. Taken together, the symposium represents an example of how translational neuroscience can inform and modify clinical practice.

Learning Objectives:

- 1. List the strengths and limitations of magnetic seizure therapy
- 2. Describe the effects of transcranial direct current stimulation in older adults
- 3. List the medications that may facilitate or impede neuromodulation effects

The neurocognitive effects of magnetic seizure therapy in the treatment of psychiatric illnesses

Shawn McClintock

**Transcranial direct current stimulation** across the aging-dementia continuum Benjamin M. Hampstead

#### Medication effects on stimulation-induced Neuromodulation

Michael A. Nitsche

## **Pre-Opening Symposium**

### Healthy Aging: Brain and Mind

Sponsored by National Health Research Institutes

#### July 6<sup>th</sup>, 2023 (Thursday) 12:00-13:30, Room 105

Chair: Hsu Wen Huang

#### SYMPOSIUM SUMMARY

Life expectancy has increased significantly around the world. Maintaining brain health throughout life is the key to healthy aging and is a multifaceted issue. A broader understanding of the interactions between brain dynamics, cognitive abilities, and social factors across the human lifespan promises a more incisive view of how to promote a healthy mind. In this session, we will talk about ways to detect and prevent diseases and conditions associated with the aging brain, as well as interventions that can benefit individuals who are already dealing with age-related brain health challenges.

**Aging Gracefully: Navigating Loneliness, Chronic Disease, and Geriatric Depression** Yun-Hsuan Chang

Enhancing Early Detection of Alzheimer's Disease through Synergistic Collaboration between Neuropsychology and Artificial Intelligence Techniques Yu-Ling Chang

Enhancing Brain and Body Health in Older Adults: A Comprehensive Multidomain Intervention for Healthy Aging

Wei-Ju Li



### **Pediatric Brain Tumor**

Sponsored by Taiwan Pediatric Brain Tumor Consortium

#### July 8<sup>th</sup>, 2023 (Saturday) 09:00-10:30, Room 101 A

Chair: Tai-Tong Wong

#### SYMPOSIUM SUMMARY

Survivors of pediatric brain tumors frequently experience cancer and treatment-related neurocognitive and neuropsychological dysfunction months to years after treatment. Risk factors include young age at diagnosis, treatment with cranial irradiation, use of parenteral or intrathecal methotrexate, female sex, and pre-existing morbidities, etc. Given that the overall survival rate has been increasing during recent decades owing to a comprehensive multidisciplinary approach, the delayed effects of treatment-related functional deficits and the quality of life of pediatric brain tumor survivors should be investigated and remediated accordingly. Posterior fossa tumor accounts for two-thirds of all CNS tumors in children, with two most common tumor types being medulloblastoma, a highly malignant one; and cerebellar astrocytoma, a low-grade tumor. This symposium aims to provide update information through multi-center research design to understand the role of various treatment approaches upon neurocognitive and neuropsychological functioning in pediatric posterior fossa tumor survivors. Correlation of neuroimaging and neurocognitive data, the impact of this relationship by tumor treatment, and longitudinal characteristics of neuropsychological outcome will be presented as well.

#### Advanced Imaging and Neuropsychological Functioning for Pediatric Posterior Fossa Tumor Survivors and Healthy Controls: Neuroanatomical and Neurocognitive Deficits

#### Stephen A. Sands

**Background:** Two-thirds of all CNS tumors in children occur in the posterior fossa (PF) region. The two most common posterior fossa tumor types include medulloblastoma (MB; 40%), a malignant tumor, and cerebellar astrocytoma (LGA; 20%–35%), a low-grade tumor. Direct comparison of childhood MB and LGA survivors to controls is a useful method for examining treatment-related late effects as both tumor groups undergo surgical resection of the posterior fossa tumor; however, only MB requires craniospinal irradiation (CSI) plus irradiation boost to the posterior fossa region and chemotherapy. Comparison of childhood MB to LGA survivors therefore provides the opportunity to clarify late effects specific to CSI, posterior fossa irradiation boost, and chemotherapy, while controlling for effects of brain tumor location and surgery. While there are many benefits to multi-site consortium research, the aggregation of resting state functional MRI (rs-fMRI) data from different sites may contain scanner and



site variability due to a variety of manufacturers, potentially leading to conflicting results and poor reliability. Although several studies have shown robustness and reliability of rs-fMRI and related functional brain parameters across scanners in adults, data on the robustness and reliability of rsfMRI across different scanner platforms at multiple sites in pediatric populations remain sparse.

**Aims:** The purpose of this multi-center research study was to recruit survivors of PF tumors, as well as healthy controls, to better understand the role of various treatment approaches upon neurocognitive, social-emotional, and behavioral functioning. Additional aims included examining the feasibility of collecting neuroimaging and neurocognitive data across four institutions in the United States to explore whether certain neurocognitive functions are localized to specific regions, and whether treatment impacts this relationship.

Methods: Participants (N=42) between the ages of 6-16 years old were recruited across four sites in the United States from 2015-2020. Participants were either treated for PF MO medulloblastoma (N=16) and received surgery, chemotherapy, and cranio-spinal irradiation with a boost to the posterior fossa or were treated for PF LGA (N=9) and received surgery only. Healthy Controls (N=17) were age-matched. A neuropsychological battery was administered to assess IQ, Learning and Memory, Visual-Motor and Fine Motor functioning. Parents completed questionnaires to assess their child's social-emotional and behavioral functioning, along with executive functioning and social status, while participants also completed a multi-dimensional measure of fatigue. Structural and functional connectivity was assessed using diffusion tensor imaging (DTI) and resting state functional connectivity MRI (rs-fcMRI) to integrate CNS structural volume and connectivity. To demonstrate the feasibility of combining imaging data across multiple sites, human phantom scans were collected at each of the participating sites prior to enrolling participants. The feasibility of collecting neuroimaging and neurocognitive data across four sites with different MRI scanner manufacturers will be discussed, potentially enabling future collaborative imaging research across consortiums for pediatric posterior fossa tumors. Neurocognitive profiles were then compared between various treatment approaches for posterior fossa tumors to further elucidate the impacts of cranial irradiation as well as late effects arising from surgery only. Lastly, correlates between neural networks, structural volumes and neurocognition were analyzed and will be presented.

#### Novel Approaches to Treating Young Pediatric Brain Tumor Patients while Preserving Neurocognitive Functioning and Quality of Life (QoL)

Stephen A. Sands

**Background:** Medulloblastoma (MB) is the most frequent malignant childhood brain tumor (incidence of 5.5/million/year). About 40% of cases occur in children <5 years old and account for up to 20% of all childhood central nervous system neoplasms. More recent genomic profiling has led to molecular subtyping that demonstrates a difference in prognosis across groups. Specifically, Group 3 and Group 4 subgroups confer higher risk; whereas Sonic Hedgehog (SHH) and Wingless (WNT) are classified as low-risk and therefore do not require

INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



as intensive treatments. Cranial irradiation, a mainstay in most medulloblastoma treatment protocols, is commonly associated with neurocognitive morbidities such as lowered attention, working memory, executive functioning and learning, with young age at diagnosis a risk factor. By reducing or eliminating cranial irradiation for young, low-risk patients, the likelihood of neurocognitive morbidities and chronic health conditions are expected to decrease.

**Aims:** Streamlined approaches to collecting serial neurocognitive data have been implemented in treatment protocols to monitor whether neurocognitive, social-emotional, and behavioral functioning is preserved when implementing a molecular risk-based approach to treatment.

**Methods:** Analyses of serial neurocognitive data collected across 24 sites in North America and New Zealand at baseline (N=33) and 2-years postcompletion of medical treatment for Head Start 4 SHH medulloblastoma patients who were treated without cranial irradiation will be discussed. Additionally, the potential impact of parental functioning, home characteristics and demographic variables upon the preservation of long-term overall functioning will also be reviewed.

**Result:** The success of this chemotherapy-based approach to treating Young Children with Medulloblastoma-Low Risk (YCMB-LR) has engendered the first phase III international randomized study comparing two highly effective irradiation-sparing treatment regimens, Head Start and HIT-SKK, which will take place at Pediatric Oncology Centers across Europe and North America. YCMB-LR is also one of the first Pediatric Brain Tumor studies to include neuropsychological outcomes as the primary objective as well as to include prospective risk prediction of Medulloblastoma (MB) by intensive molecular profiling and pathway analysis. This new research project design will be presented along with the study goals to clarify which of the two compared regimens, both highly effective for brain tumor control, is associated with better functional outcomes, while harmonizing international diagnostic and therapeutic standards not only for MB, but perhaps also for other Pediatric central nervous system (CNS) tumors.

## Neuropsychological outcomes and the longitudinal characteristics in survivors with Medulloblastoma

#### Wan Ru Huang

Medulloblastoma is the most common malignant brain tumor in childhood, comprising for up to 13% of primary CNS neoplasms and approximately 54% of all posterior fossa tumors in Taiwan. All pediatric Medulloblastoma occur in cerebellum, which is a well -known brain part for involvement in balance control, coordination, and complex motor functions, and even cognitive/ affective processes. To investigate the long-term outcomes and quality of life, we conducted a comprehensive neuropsychological assessment and psychosocial adaptation for posterior fossa tumors in children. The Neuropsychological assessment included evaluation of (1) Intelligence, (2) Perceptual Organization, (3) Memory, (4) Attention, and (5) Executive Function. Psychosocial adaption was measured in term of (1) Adaptive Behavior and (2) Quality of Life. The survived Medulloblastoma (MB) as a representative of malignant brain tumor and the Pilocytic Astrocytoma (PA) as a representative of low-grade tumor, along with a control group

### INS 2023 Taiwan Meeting





were recruited. In results, MB revealed a significant decline in intelligence, processing speed, perception integration, verbal/visual memory and sustained attention compared to PA. The findings also indicated the obviously poor physical and psychological adaption on the survived MB. Tumor types in posterior fossa differentially interfered with prognosis. Additionally, several clinic issues were also considered regarding longitudinal complications. Issue

- 1: The treatment strategies showed the long-term toxic effect that higher radiation dosage in extensive volume was found to associate with subsequent cognitive decline. Issue
- 2: The developmental stage would determine the extent to which progressive damage could affect outcomes. Issue
- 3: A longitudinal course would predict a decline in cognitive abilities, particularly within the first 3-5 years and beyond 20 years. Lastly, Issue
- 4: specific neurobehavioral syndromes could impact both the current recovery state and future prognosis. For survivors of medulloblastoma, challenges extend far beyond the brain tumor itself and staying alive. Through empirical evidence, effective interventions and consultations are provided, aiming to maximize preventive, restorative, supportive, and palliative goals.



#### Awake craniectomy

#### 8-July, 2023 (Saturday) 09:00-10:30, Room 101 B

Chair: Chi-Cheng Yang

#### SYMPOSIUM SUMMARY

#### Purpose

This invited symposium of per-operative neuropsychological monitoring during awake craniectomy hopes to demonstrate various empirical evidence to enhance the audience's understanding of the current application of neuropsychology in the field of functional neurosurgery.

Scholars to be invited: (1) Dr. Chi-Cheng Yang (Professor, Department of Psychology, National Chengchi University, Taipei, Taiwan), (2) Dr. Vigneswaran Veeramuthu (Clinical Neuropsychologist, Thomson Hospital Kota Damansara, Selangor, Malaysia), (3) Dr. Ko-Ting Chen (Neurosurgeon, Department of Neurosurgery, Chung Gung Memorial Hospital, Linkou Branch, Taoyuan, Taiwan).

#### Agenda

The symposium will be 90 minutes and will feature three presentations. Each presentation will last for 25 minutes with the speaker's research and experiences with awake craniectomy. A 15-minute general discussion session will be followed after three presentations.

**Predictors of post-surgical neuropsychological functions after awake craniectomy in Taiwan** Chi-Cheng Yang

Pre, Intra and Postoperative Neuropsychosurgical Planning, Techniques and Consideration in Highly Personalized Cortico-Subcortical Mapping of Lesion-based Awake Brain Surgeries Vigneswaran Veeramuthu

Language and Cognitive Functions Before, During and After Awake Brain Surgeries - Toward a Connectomic Approach Ko-Ting Chen



#### The Application of Clinical Neuropsychology in Epilepsy Medicine

#### 8-July, 2023 (Saturday) 10:45-12:15, Room 101 A

Moderator: David W. Loring Chair: David W. Loring

#### SYMPOSIUM SUMMARY

#### Purpose

This epilepsy symposium aims to bring together the findings of various empirical studies, including related topics such as the presurgical functional assessment of epilepsy, social cognition, and social functioning in patients with epilepsy. The goal is to enhance the audience's understanding of the current applications of neuropsychology in the field of epilepsy medicine.

#### Agenda

The symposium will be 90 minutes long and will feature three presentations. Each presentation will last for 25 minutes with the speaker's recent research on epilepsy. A 15-minute general discussion session will be followed after the three presentations. Dr. Hsiang-Yu Yu and Dr. Wei-Han Wang from Taiwan will be jointly responsible for the 3rd presentation, with the title of "The Application of Neuropsychology in Epilepsy treatment in Taiwan- An Example of Department of Epilepsy, Taipei Veterans General Hospital."

## Maximizing cognitive outcomes in epilepsy interventions

David W. Loring

**Presurgical language fMRI and the clinical neuropsychologist** Christopher Benjamin

The Application of Neuropsychology in Epilepsy treatment in Taiwan- An Example of Department of Epilepsy, Taipei Veterans General Hospital Wei-Han Wang & Hsiang-Yu Yu



### **Behavioral Neurology and Clinical Neuropsychology**

Sponsored by Taiwan Neurological Society

#### 8-July, 2023 (Saturday) 10:45-12:15, Room 101 B

#### SYMPOSIUM SUMMARY

In this section, we have six famous speakers who will discuss the recent advances in the field of behavioral neurology and neuropsychology in Taiwan.

#### Section1: Speech analysis in Alzheimer's disease (AD) continuum

Dr. Yi-Chien Liu will give a lecture focus on the subtle cognitive changes that signify decompensation of the brain network and may provide a better time point for high-risk drug trials or other interventions. One of the most intuitive ways to detect subtle cognitive changes is through language analysis. In our previous study, linguistic features in subjects with mild cognitive impairment (MCI) reflected clinical cognitive impairment, hippocampal atrophy, and amyloid burden.

#### Section 2: Spatial Cognition in AD Continuum

Prof. Ming-Chyi Pai will give a lecture regarding patients with dementia may have spatial navigation impairment (SNI) prior to the occurrence of getting lost (GL) or missing incidents. This is especially true for those with AD continuum. The occurrence of SNI or GL/missing cannot be explained simply by memory impairment or general cognitive decline. Based on the fact that the brain regions damaged by early-stage neuropathology overlap with structures essential for human spatial navigation, it has been proposed that SNI is a potential marker for AD continuum.

#### Section 3: The Neuropsychological Profile of CADASIL: Understanding Cognitive Dysfunction in Cerebral Autosomal Dominant Arteriopathy with Subcortical Infarcts and Leukoencephalopathy"

Dr. Yu-Wen Cheng will tell us that CADASIL is the most common monogenetic cerebral small vessel disease and can serve as a disease model for vascular cognitive impairment. Cognitive impairment associated with CADASIL features early involvement of executive function and processing speed, which is comparable to sporadic SVD. Neuropsychiatric symptoms are common in CADASIL, even before overt dementia occurs.

## Section 4: "The Impact of Non-Pharmacological Interventions on Clinical Changes in patients with cognitive dysfunction"

Dr. Kai-Ming Jhang will tell us that non-pharmacological interventions including case management based collaborative care models, cognitive training programs are effective strategies for elderly with cognitive decline. Case manager centered collaborative care models in dementia center can effectively find the need for people living with dementia (PLWD) and their caregiver, attenuated BPSD and improved the adherence of dementia quality measures.



Computerized cognitive training improves cognitive scores in elderly with mild cognitive impairment. Community Service Center for Dementia which provides cognitive stimulation program and social connection for PLWD effectively maintain their global function.

## Section 5: "The Role of Glymphatic Dysfunction and cognitive dysfunction in patients with Alzheimer's disease"

Prof. Jung Lung Hsu will discuss the recently advanced glymphatic activity study and focus on the mediating effect on amyloid and tau protein clearance in Alzheimer's patients, which may potentially open the therapeutic window in neurodegenerative diseases.

#### Section 6: "Exploring the Potential changes of rTMS Intervention on Glymphatic Changes in Mild Cognitive Impairment and early dementia due to Alzheimer's Disease"

Dr. Yi-Chun Kuan will discuss about the associations between the glymphatic changes and rTMS intervention in patient with early dementia.





#### Advent of Clinical Neuropsychological Profession in the Asian Countries: Japan, Taiwan, Malaysia, Indonesia, Macau S.A.R. China and Thailand

#### 7-July, 2023 (Friday) 12:30-14:00, Room 102

Moderator: Jonathan Evans Chair: Nai-Wen Guo

#### SYMPOSIUM SUMMARY

In this special symposium, six members who work and promote neuropsychology in their countries will discuss the current status of clinical psychology practice in their regions. They will cover various aspects, such as education, workforce, national certification and licensure, relevant associations, etc. Furthermore, they will report the progress and challenges in clinical neuropsychology. Moreover, they will propose some directions and suggestions for advancing clinical neuropsychology in the global context.

#### Current status and future vision of clinical neuropsychologist in Taiwan

Nai-Wen Guo

#### TAIWAN

Prof. Nai-Wen Guo Chairman of INS 2023 Taiwan meeting

#### INDONESIA

Dr. Augustina Sulastri Vice Dean for Academics, Research, and Cooperation. Faculty of Psychology, Soegijapranata Catholic University.

#### THAILAND

Dr. Parisuth Sumransub Clinical Psychologist and Neuropsychologist Princess Mother National Institute on Drug Abuse Treatment Department of Medical Services, Ministry of Public Health

#### JAPAN

Dr. Sakamoto Pomeroy Maiko Associate Professor. Division of Medical Education Development, Education and Research Center for Community Medicine, Saga University.

#### MALAYSIA

Vigneswaran Veeramuthu Consultant Clinical Neuropsychologist (Adult & Pediatrics) Petaling Jaya, Selangor, Malaysia

#### Macau S.A.R. China

Lei Seng Hang Chairman of Macau Psychology Association

INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



# Asian Neuropsychology in the U.S.: Current State and Future Development

#### 7-July, 2023 (Friday) 14:15-15:45, Room 102

**Chair:** Daryl Fujii **Discussant:** Chris Nguyen

#### SYMPOSIUM SUMMARY

Our world is rapidly changing. It is growing more interdependent as evidenced by the global impact of local events such as the COVID-19 outbreak in China, the George Floyd murder in the U.S., and the war in Ukraine. It is growing smaller, as the internet allows information to be shared worldwide within a matter of seconds and facilitate communication between people halfway around the world via video conferencing. It is becoming more integrated with the growing number of immigrants and persons around the world identifying as being multiracial. The population is also aging as persons 65 years and older is projected to double by 2050. These trends have significant implications for clinical neuropsychology including the increased need for competent neuropsychological services for a diversity of people all over the world; a daunting task which will require more cooperation, communication, and creative collaboration amongst neuropsychologists worldwide.

This symposium is the second of a two-part series that attempts to address the global issue of competent neuropsychological service provision. In part 1, the development of neuropsychology in six Asian countries including Japan, Taiwan, Malaysia, Indonesia, Macao, and Thailand. Our presentation will be a counterpart to and continuation of Part 1 and will propose how neuropsychologists from five Asian countries—Japan, Taiwan, India, Malaysia, and Vietnam, can collaborate to improve neuropsychological services in both countries. Each presentation will follow a similar format. First, the population of different Asian ethnicities living in the U.S. and worldwide will be described. Next, we identify resources and limitations for providing competent neuropsychologists from Asian countries and their U.S. counterparts can collaborate to help improve services to Asian patients in both countries. Each presentation will close with a discussion of potential challenges to implementation. A goal of this symposium is to stimulate collaboration between international neuropsychologists.

Neuropsychology of Japanese in Two Countries: Resources. Limitations, and Collaborations Daryl Fujii

Enhancing collaboration between psychologists of Taiwanese descent in Taiwan and the US for neuropsychological training and practice Wen-Yu Cheng & Yu-Ling Chang



Developing a collaborative framework to support neuropsychology training and knowledge exchange for psychologists of South Asian descent Porrselvi A.P.

Cognitive mapping paradigms for the multilingual and multicultural brain: Developing culturally- and linguistically-sensitive intraoperative tasks for Malaysians

Vigneswaran Veeramuthu

Neuropsychology of Vietnamese, Vietnamese Americans, Vietnamese Australians: current practices and future directions

BaoChan Tran





#### Multicultural Neuropsychological Approaches to Test Development, Adaptation, and Data Collection

#### 7-July, 2023 (Friday) 16:00-17:30, Room 102

**Chair:** Jonathan Evans **Discussant:** Chris Nguyen

#### SYMPOSIUM SUMMARY

Enhancing multicultural neuropsychological test development, adaptation, and data collection is critical in a simultaneously shrinking and increasingly interconnected world. Many traditional neuropsychological tests have been developed and validated primarily with European origin populations and may not be valid for individuals from other cultural and linguistic backgrounds. The cultural context in which an individual is raised can influence their cognitive processes, beliefs, and values, which may in turn impact their performance on neuropsychological tests. The goal of this symposium is to review current proposed guidelines for test translation, adaptation, and development; present lessons learned from our work with Bengali and Vietnamese speakers; and consider future directions in adapting tests for tablet or smart phone-based administration, and mechanisms of data integration and harmonization.

We begin with the presentation of the INS Cultural Special Interest Group (SIG) on the neuropsychological application of the International Test Commission's (ITC) Guidelines for Translating and Adapting Tests. Strategies for adapting existing tests to be more culturally sensitive, translating tests into different languages, and developing new tests that are specific to a particular culture or population will be discussed. Lessons learned from three studies will be presented: (1) a culture-specific approach to adapt the Addenbrooke's Examination (ACE) III – Bengali version (BACE III); (2) development of a tablet-assisted assessment system with standardized administration and scoring for assessing cognition and other functions in Tamil-speaking adults; and (3) collecting normative data for translations/adaptations of common neuropsychological tests in Vietnamese population. The final presentation will discuss the current progress and future directions in data integration and harmonization of assessment methods.

## Neuropsychological Applications of the International Test Commission's (ITC) Guidelines for Translating and Adapting Tests

Chris Nguyen

Adaptation of the Addenbrooke's Cognitive Examination III for the Bengali speaking population in India: A systematic approach to reducing cultural and linguistic bias Jon Evans

Lessons from the Development of a Computer-Assisted Test Battery for Resource Optimization

Porrselvi A.P.

Normative data for common neuropsychological tests to evaluate dementia in Vietnamese people

Thanh Nguyen

Towards an International Neuropsychology Network: Lessons Learned from the National Neuropsychology Network Robert Bilder





# Advancing Late-Life Depression Research: Neuropsychological and AI Modelling Studies

#### 7-July, 2023 (Friday) 14:15-15:45, Room 101 D

Chair: Tatia Lee

#### SYMPOSIUM SUMMARY

Depression in late life is prevalent among older adults, causing significant social and economic burdens to caregivers and society. Psychomotor disturbance and energy loss are prominent features, and suicidality is one of the fatal consequences of late-life depression (LLD). An understanding of their neuropsychological underpinnings will provide insights that could lead to the development of effective diagnosis and intervention. Besides, identifying suicidality-related neural markers helpful in detecting the risk of suicide will make an invaluable contribution to the clinical management of LLD. Cognitive reserve, an active process that facilitates the flexibility and efficiency of the neural networks to compensate for neural impairments, may regulate the resilience and adaptability of brain functions and hence protect older people against LLD.

**Introducing the concept of late-life depression.** Tatia Lee

The neuropsychological underpinning of perceived energy levels in older adults with late-life depression.

Charlene Lam

The value and feasibility of using multimodal brain connectome-based prediction modelling of suicide risk in people with late-life depression. Mengxia Gao

The potential of cognitive reserve in mediating the neural modulation of affective regulation in late-life depression.

Chih-Mao Huang



## Symposium

### Novel Guiding Concepts in Neuropsychological Rehabilitation

#### 8-July, 2023 (Saturday) 10:45-12:15, Room102

Chair: Giles Yeates Discussant: Jonathan Evans

#### SYMPOSIUM SUMMARY

The last decade has seen an increase in the both the integration of cognitive, emotional and family/social elements within holistic neuropsychological rehabilitation, but also the diversity of novel concepts guiding rehabilitation at both component and meta-levels. These concepts are drawn from differing schools of neuroscience, psychotherapy, community and social participation, and offer differing views of rehabilitation aims, processes and organisation of multi-disciplinary professional involvement. This symposium introduces three guiding meta-concepts that have only recently been introduced into the neuropsychological rehabilitation literature: flow, identity and intersubjectivity. These three presentations will be followed by discussion and critical reflection on their potential contribution to broader trends within neuropsychological rehabilitation.

Flow state experience in neuropsychological rehabilitation: a mediating construct in physical, psychological and mind-body interventions Giles Yeates

Identity Work in Neuropsychological Rehabilitation: individual, interpersonal and social influences

Christian Salas

Intersubjective Neuropsychological Rehabilitation: Preliminary Outline & Defining Characteristics

Giles Yeates



## Symposium

#### **Multiple Perspectives on Vascular Cognitive Impairment**

7-July, 2023 (Friday) 12:30-14:00, Room 101 B

Chair: Yen-Hsuan Hsu Discussant: Yen-Hsuan Hsu

#### SYMPOSIUM SUMMARY

Cerebrovascular disease is one of the most common causes of neurocognitive disorders in older adults. Vascular cognitive impairment (VCI) is the term used to encompass the various etiologies and severities of cognitive disturbance resulting from cerebrovascular events. Despite its prevalence in clinical settings, there remain issues to be explored. This symposium highlights a cross-talk between neurology, neuroimaging, neurobiology, and neuropsychology. Multiple facets of VCI will be discussed in depth, including its risk factors, neuromechanisms, neuroimaging markers, and neuropsychological profiling.

Subcortical Ischemic Vascular Disease: Insight by MRI

Min-Chien Tu

Poststroke cognitive impairment: A prospective cohort study searching for fluid and image biomarkers

Li-Kai Huang

**Exploring Neuropsychological Test Indicators for Cerebral Small Vessel Disease** Yen-Hsuan Hsu

Relationship between Serum Cholesterol Levels and Cognitive Functions among Elderly Individuals with or without Dementia Hsin-Te Chang



### Symposium

#### Smartphones as a window into everyday brain health: applications of keystroke dynamics, ecological momentary assessment, and accelerometry

#### 7-July, 2023 (Friday) 12:30-14:00, Room 101 D

Chair: Michelle Chen Discussant: Alex Leow

#### SYMPOSIUM SUMMARY

Traditional neuropsychological tests have a number of limitations, including the low frequency of data collection and restricted ecological validity. Novel digital health tools may help overcome some of these limitations and complement traditional assessment approaches. For example, high-frequency data in the real world can be easily gathered using smartphones, which may inform real-world fluctuations in symptoms and behavior between clinical visits. Data sources from smartphones may range from active surveys and cognitive tasks that can be self-administered to passive sensors embedded within the devices. With smartphone ownership becoming increasingly common (in some cases more accessible than neuropsychology services), smartphone data can be a valuable source of clinical information for patients and clinicians. This symposium will showcase several applications of smartphone data in neuropsychological inquiries. Examples of smartphone data discussed include keystroke dynamics (i.e., how an individual types on their smartphone keyboard), ecological momentary assessment (EMA; i.e., repeated brief surveys and cognitive tasks administered through the smartphone), and accelerometry (movement of the phone).

Smartphone-based assessment of acute cannabis effects on daily cognitive functioning Tammy Chung

Tapping into our emotions: can smartphone keyboard dynamics predict mood and impulsivity?

Andrea Cladek

Real-time variability and complexity of smartphone typing speed among persons with MS Michelle Chen

Less is more: How accelerometry data derived during active smartphone typing informs diurnal patterns and brain health

Alex Leow



### PAPER SESSION 1

#### Cognitive and social function in Pediatric populations

Friday, July 7<sup>th</sup>, 09:00-10:00 Room 102

Moderator: Chimei Lee

The Effect of Increased Emotional Awareness on Anxiety, Sleep Quality, and Academic Performance in Adolescents Han-Yun Chang, Kristine Lin, Hsiao-Ting Ho

What's special about 17? A study on executive function among Indonesian late adolescents Daniswara Agusta Wijaya, Shinta Estri Wahyuningrum, Margaretha Sih Setija Utami

Implicit sequence learning deficits in developmental dyslexia: the role of verbal material, auditory modality and procedural learning Eli Vakil, Rachel Schiff, Haya Blachstein

### PAPER SESSION 2

#### Traumatic Brain Injury related topics

Friday, July 7<sup>th</sup>, 10:30-11:30 Room 102

Moderator: Chi-Cheng Yang

Looking into puberty, brain network connectivity and executive functions following pediatric traumatic brain injury in females: Preliminary results

Tamar Silberg, Yael Golan, Reut Raizman, Moran Shectman, Hadar Shapsa, Galia Tsarfaty, Neta Erez, Jana Landa, Abigail Livny

Adolescents with Traumatic Brain Injury vs. Functional Neurological Symptoms Disorder: Walking performance and Exertion Awareness Post-Pediatric Rehabilitation Sharon Barak, Jana Landa, Maya Gerner, Etzyona Eisenstein

The relationship between cognition and white matter tract microstructural organisation differs 10 weeks after mild traumatic brain Injury relative to trauma controls Jacqueline Anderson, Lucy Oehr, Jian Chen, Joseph Yang, Marc Seal

Is there a relationship between emotion dysregulation and social cognition following Traumatic Brain Injury?

Skye McDonald, Michaela Filipcikova, Halle Quang, Anneli Cassel, Lilly Darke, Emily Wilson, Travis Wearne, Hannah Rosenberg



#### **PAPER SESSION 3**

#### **Sleep and Cognition related topics**

Friday, July 7<sup>th</sup>, 14:15-15:45 Room 101 A

Moderator: Hsin-Chien Lee

The association between maternal sleep and the behavioral/cognitive functions of their offspring Ya-Wen Jan

**Sleep differentially impairs recall memory in a patient with perturbed right fornix** Julie Tseng, Nelly Matorina, Natalia Ladyka-Wojcik, Rosanna Olsen, Donald Mabbott, Morgan Barense

**The Effects of Sleep Extension on Neurocognitive function in Children with ADHD** Ya-Wen Jan

**Sleep-promoting Effect of 4-week Mindfulness-based Curriculum for Insomnia in Taiwan** Changwei Wu, Kuo-Lan Shen, Li-Yen Kuo

**Snoring and Executive Functioning in Healthy Young Adults** Theresa Lin, Malorie Watson, Caitlin Dougher, Molly Zimmerman

#### **PAPER SESSION 4**

#### Neuroimaging and Neuromodulation related topics

Friday, July 7<sup>th</sup>, 14:15-15:45 Room 101 B

Moderator: Benjamin Hampstead

Apathy, empathy and depression in Alzheimer's disease and frontotemporal dementia: Examining the constructs and white matter correlates

Halle Quang, Filip Mencevski, Olivier Piguet, Masud Husain, Ramon Landin-Romero, Fiona Kumfor

**Trajectrories of white and grey matter degeneration in frontotemporal dementia** Ramon Landin-Romero, Halle Quang, Sophie Matis, Arkiev D'Souza, Marshall Dalton, Fiona Kumfor, Fernando Calamante, Olivier Piguet



Neural correlates of mindfulness interventions: meta-analysis of voxel-based morphometric randomized controlled trials Savannah Siew, Junhong Yu

**The role of the cerebellum in fluid intelligence: an fMRI study** Abigail Livny Ezer, Anat Leibovici, Reut Raizman, Galia Tsarfaty

#### **PAPER SESSION 5**

#### Intervention and Rehabilitation topics

Friday, July 7<sup>th</sup>, 14:15-15:45 Room 101 C

Moderator: Cheng-Chang Yang

Effects of Intermittent Theta Burst Stimulation on Cognition in Mild Cognitive Impairment and Early Alzheimer's Disease: A Randomized Controlled Trial Cheng-Chang Yang, Yi-Chun Kuan, Chaur-Jong Hu, Yueh-Hsun Lu

Heads Together Online Peer Education (HOPE): Co-Design of a Family-Led, Video-Based, Peer Support Resource for Families Affected by Paediatric Acquired Brain Injury Taylor Jenkin, Marnie Drake, Kate Heine, Penelope Analytis, Michael Kendall, Adam Scheinberg, Sarah Knight

Efficacy of a holistic neuropsychological day program for vocational rehabilitation of non-CNS cancer survivors with CRCI Ayala Bloch, Limor Sharoni, Tal Shany-Ur, Sari Maril, Daniella Margalit

Multimodal Cognitive and Behavioral Interventions for Patients with MCI: A systematic review and meta-analysis on patient impairment and adjustment Gelan Ying, Ambar Perez Lao, Shellie-Anne Levy, Glenn Smith

#### **PAPER SESSION 6**

#### Language and Visual Function

Friday, July 7<sup>th</sup>, 16:00-17:30 Room 101 C

Moderator: Atsuko Hayashi

**Characterising phonemic fluency by transfer learning with deep language models** Joseph Mole, Amy Nelson, Edgar Chan, Lisa Cipolotti, Parashkev Nachev



**Characteristics of Agraphia and Related Symptoms in Posterior Cortical Atrophy** Chifumi Iseki, Toshiyuki Kondo, Ryosuke Igari, Hiroyasu Sato, Kyoko Suzuki, Yasuyuki Ohta

## Superiority of Super-Selective Wada Test over Classical Wada Test: Correspondence between the Dominant Hemisphere and Language Symptoms

Kazuo Kakinuma, Shin-ichiro Osawa, Kazuto Katsuse, Hiroaki Hosokawa, Kazushi Ukishiro, Kazutaka Jin, Kuniyasu Niizuma, Teiji Tominaga, Nobukazu Nakasato, Kyoko Suzuki

White matter changes underlying speech motor control in non-semantic primary progressive aphasias

Ramon Landin-Romero, Ting-Chih Chuang, Penelope Monroe, Olivier Piguet, Kirrie Ballard

**Visuomotor Misalignment Treatment for Spatial Neglect, using Virtual Reality Technology** Peii Chen, Olga Boukrina, Denise Krch

### PAPER SESSION 7

#### Test development and adaptation

Saturday, July 8<sup>th</sup>, 09:00-10:30 Room 101 C

Moderator: Maiko Sakamoto

Is fairness in the adaptation of neuropsychological tests in multi-language and multi-ethnic country possible? Lessons on the endeavour of adapting the Indonesian Boston Naming Test. Augustina Sulastri, Aria Saloka Immanuel, Shinta Estri Wahyuningrum, Gilles Van Luijtelaar

## The Specificity and Cut-Off Scores of Multiple Performance Validity Tests in Indonesian Mixed Neurological Samples

Widhi Adhiatma, Marc P. H. Hendriks, Magdalena S. Halim, Octavianus Darmawan, Diatri Nari Lastri, Roy P. C. Kessels

## The interaction between dementia and the law: a prospective study of criminal risk behaviours

Fiona Kumfor, Grace Wei, Nola Ries, Hayley Bennett, Christina Kozlowski, Mirelle D'Mello, Cassandra Kaizik, Olivier Piguet, John Hodges



#### PAPER SESSION 8

#### **Social Cognition related topics**

Saturday, July 8<sup>th</sup>, 09:00-10:30 Room 101 D

Moderator: Matia Okubo

Amygdala subregional volumes in frontotemporal dementia and Alzheimer's disease and their associations with social cognitive deficits

Mengjie Huang, Ramon Landin-Romero, Marshall Dalton, Olivier Piguet

Relationships between Perspective Taking, Executive Functions, and Social Cognition in Young and Older Adults Shih-Min Shen, Chui-De Chiu, Yen-Hsuan Hsu

Interpretation of Ambiguous Social Situations in Older Age: The Role of Biases, Flexibility, and Executive Functions

Sharon Naparstek, Jake Kuperstok, Aidel Wittler, Reuma Gadassi Polack, Michael V. Bronstein, Jonas Everaert

**Profiles and predictors of social functioning in dementia syndromes** Grace Wei, Kirrie Ballard, Olivier Piguet, Fiona Kumfor

Alexithymia explains cross-cultural differences in emotion perception Ranran Li, Torunn Briers, Skye McDonald

### **PAPER SESSION 9**

#### Aging and Alzheimer's disease related topics

Saturday, July 8<sup>th</sup>, 10:45-12:15 Room 101 C

Moderator: Yu-Ling Chang

Correlation between vascular risk factors and incident dementia among individuals with subjective or mild cognitive impairment in Taiwan

Hsin-Te Chang, Yen-Chang Huang, Pai-Yi Chiu, Chung-Hsiang Liu, Sung-Man Fan

## Retrospective time perception deficits in older adults with amnestic mild cognitive impairment

Ya-Mei Lai, Yu-Ling Chang, Yue-Ling Chiu, Jing-Rong Wang, Ming-Shan Tsai, Cheng-Yun Lee, Yu-Ruei Lin, Chia-Hsing Chi

INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



#### Distinct patterns of gist and detail memory decay in older adults with amnestic mild cognitive impairment

Yu-Ruei Lin, Chia-Hsing Chi, Yu-Ling Chang

#### Differentiating Alzheimer's disease dementia from lifelong intellectual disability – Findings from the Alzheimer Biomarker Consortium – Down Syndrome

Christy Hom, Sharon Krinsky-McHale, Sigan Hartley, Wayne Silverman, Ben Handen, Margaret Pulsifer, Shemaya Hurd-Thomas, Isabel Clare, Ira Lott

#### Specific cognitive domains and frailty status among older Taiwanese adults Lalu Suprawesta, Hei-Fen Hwang, Sy-Jou Chen, Wen-Yu Yu, Mau-Roung Lin

#### PAPER SESSION 10

#### Multicultural and diversity topics

Saturday, July 8<sup>th</sup>, 10:45-12:15 Room 101 D

Moderator: Halle Quang

A Comparison of Verbal Learning Performances between Females and Males in Indonesia Margaretha Utami, Haryo Goeritno, Lucia Widhianingtanti

#### Cognitive and physical age-gaps in relation to mild cognitive impairment and behavioral phenotypes

Junhong Yu, Ted K. S. Ng, Rathi Mahendran

#### Luria's fist-edge-palm test: The importance of accuracy in clinical neuropsychological assessment Sarah MacPherson, Nicoletta Beschin, Sergio Della Sala

Online reading the mind in the eyes test in Mexican children and adolescents Ma de la Cruz Téllez-Alanís, Sandra Meza-Cavazos, Rubén Avilés-Reyes, Erwin Villuendas-González, Itzel Alonso-Carrillo

Assessment of premorbid cognitive abilities in the Tamil speaking population- a pilot study Porrselvi Ammaiappan Palanisamy, Shivani Rajeshree

#### Effort Exertion as an Intrinsic Reward: A Cross-cultural Investigation in Vietnam and Australia

Ngoc On, Ervin Zhao, Ranran Li, Skye McDonald, Halle Quang



## **Poster Sessions**

### **POSTER SESSION 1**

Thursday, July 6<sup>th</sup>, 11:30-12:00

01. Vocational rehabilitation techniques for people with acquired brain injuries; How do OTs support vocational life?

Ryoko Kurihara, Toru Nagao, Rumi Tanemura

02. Long-term follow-up of emotional difficulties in young adults following pediatric traumatic brain injury and their parents

Tamar Silberg, Shiran Baruch, Rotem Shapira, Nurit Galor, Jana Landa, Amichai Brezner, Janna Ahonniska-Assa

03. Parent's reports of sleep and fatigue after early concussion

Justine Daigneault, Stphanie Lamarche, Miriam Beauchamp, Keith Yeates, Antonia Stang, Sean Rose, Brett Stephen Burstein, Jocelyn Gravel, Fanny Dgeilh, Isabelle Gagnon

04. Differential Effects of Mindfulness-Based Relapse Prevention on Beta Activity in Involuntary Clients with Varying Degrees of Self-Awareness

Yu-Chi Liao, Chun-Hung Lee, Nai-Wen Guo, Yung-Chin Lu, Cheng-Hung Ko

- 05. The Effectiveness of Goal Management Training in Alcohol Dependence a case report YuTing Pi
- **06. Neuropsychological features in drunk driving recidivists.** Chiu-Ping Liu, Wan-Chen Hsu, Hsiu-Ting Hsu
- 07. Brain activity in virtual social settings: a comparison of individuals with high risk of internet gaming disorder and those with low that

Shih Yi Tung, Cheng Ink Lo

08. Associations between EEG asymmetry and potential internet gaming disorder in a virtual socioemotional setting

Pin-Yang Yeh, Huei-Chen Ko, Bo-Shen Chen, Shih-Yi Tung

09. The executive function abilities among college students of social networking and gaming addiction

Yi-Hua Ye, Huei-Chen Ko, Pei-Chun Hsiao, Yu-Chi Liao

**10. Investigating the Brain Wave of Internet and Gaming Addictions among College Students** Yi-Jia Xu, Huei-Chen Ko, Pei-Chun Hsiao, Yu-Chi Liao


11. Classifying Daily Heart Rate data for Social Networking Addiction Using Machine Learning Methods

Pei-Chun Hsiao, Zhi-Ren Tsai, Huei-Chen Ko, Han-Yun Chang, Yi-Jia Xu, Yi-Hua Ye, Yu-Chi Liao

12. Constructing a model for understanding Internet addictive behavior from a occupational perspective

Chi Jen Lee

13. Effects of hostility on internet addiction among adolescents with attention deficit and hyperactivity / impulsivity traits: executive functions as mediators

Chi-Hsuan Wu, Nai-Wen Guo, Guan-Ying Li, Li-Kang Hsu

- 14. Effects of averse childhood experiences on depression tendency, decision making and attention ability with non-opioid addicts Cheng-Hung Ko, Hui-Ping Cha, Yung-Chin Lu, Chun\_Hung Lee
- 15. Probing the Association between MoCA Test Profile and Specific Executive Functions Tests in Amphetamine Use Patients - a Retrospective Study Po-Chih Liu, Rwei-Ling Yu, Tzu-Yun Wang, Shih-Hsien Lin
- **16. Electroencephalogram valid rate in attention test points out the unreliability of selfreported severity of methamphetamine dependence** Sung-Jung Hsieh, Nai-Wen Guo, Cheng-Hung Ko
- **17. The Impact of Anxiety on Executive Functions in a Clinical Sample of Children with ADHD** Catherine Williams, Gail Tripp
- **18. Rubato: the effects of differential executive functioning growth on emotional and behavioral health in youth musicians** Michael Tate, Sarah O'Neill, Probal De, Dahlia Abbas
- 19. Attentional disengagement, phasic alertness, and its relationship to temperament in fulland preterm very low birthweight 42 months old children

Atsuko Nakagawa, Masune Sukigara, Kayo Nomura, Yukiyo Nagai, Taishi Miyachi

20. Predicting the co-occurrence of autism in school-aged children with attention deficit/ hyperactivity disorder using resting-state electroencephalography and executive function.

Shu-Hsuan Wu, Yuan-Chang Hsu, Cheng-Ink Lo

21. Neuropsychological Treatment Programs that Aim to Improve Attention Monitoring and Impulse Control in Individuals with ADHD: A Case Report of Preschool and School-age Cases.

Yu-chun Lin, Ya-Ra Yang, Yu-Chi Liao, Song Wong Hong



22. The whole-brain electroencephalography analysis in children with inattention and combined subtypes of attention-deficit/ hyperactivity disorder during resting and attention task

Mei Cheng Hoi, Weilun Chung, Yu-Shian Cheng, Hsin-Yi Fan, Tin Foong Lau, Yu-Chi Liao

23. Does menopause cause ADHD?

Jeanette Wasserstein

24. The characteristics of quantitative electroencephalography in children with attention deficit hyperactivity disorder and those comorbid with autism spectrum disorder under cognitive tasks

Tin Foong Lau, Weilun Chung, Yu-Shian Cheng, Hsin-Yi Fan, Hoi Mei Cheng, Yu-Chi Liao

25. The distinctive predictive effects of previous attention function on social-emotional performance in school-aged children with Autism Spectrum Disorder (ASD) comorbid with Attention Deficit Hyperactiv

Jui Chien Huang, Nai Wen Guo

26. Parent-teacher discrepancies on the emotional, behavioral, and adaptive functioning in a clinical-referred sample of preschoolers

Chimei Lee, Amy Esler, Catherine Burrows, Rebekah Hudock, Lauren Haisley

27. Effectiveness of sound-working memory therapy for autism spectrum disorder (ASD) children using malay emotion regulation checklist (ERC-M)

Ahmad Aidil Arafat Dzulkarnain, Fatin Nabilah Jamal, Fatin Amira Shahrudin, Masnira Jusoh, Nadzirah Ahmad Basri, Ramli Musa, Shahrul Na'im Sidek, Hazlina Md Yusof, Siti Rafiah Abd Hamid

28. Evaluation of sound and working memory intervention in autism spectrum disorder (ASD) children using auditory brainstem response (ABR) with psychological task

Ahmad Aidil Arafat Dzulkarnain, Fatin Amira Shahrudin, Fatin Nabilah Jamal, Sarah Rahmat, Ramli Musa, Nadzirah Ahmad Basri, Shahrul Naim Sidek, Hazlina Md Yusof, Madihah Khalid

29. Evaluation of sound and working memory therapy using suppression otoacoustic emission (Suppression OAE) among autism spectrum disorder (ASD) children

Ahmad Aidil Arafat Dzulkarnain, Fatin Nabilah Jamal, Fatin Amira Shahrudin, Sarah Rahmat, Shahrul Na'im Sidek, Hazlina Md Yusof, Siti Rafiah Abd Hamid

30. A randomized controlled trial of telehealth mindful parenting training on executive function in autistic children and their parents

Vanessa Zhou

31. The Relationship Between Individual Differences in Face-related Event-Related Potential Components and Autistic Tendencies in Nonautistic Adults

Mitsuyo Shibasaki, Ayaka Hatanaka



32. Neurodevelopmental Outcome in Different Severity Hypoxic Ischemic Encephalopathy after Therapeutic Hypothermia: A Cohort Study

Pei-Ling Tsai, Ti-Fang Tu, Nai-Wen Guo

- 33. Planning ability and working memory at pre-school age can be mediators among the relationship between congenital risk factors and adaptive behaviors on preterm children Peng-Chen Chen, Nai-Wen Guo, Shi-Wen Lee, Yi-Le Chou, Yung-Hsien Liu, Yu-Hsuan Chien, Chia-Jung Chiang, Jen-Shen Chang
- 34. Meta-attention at preschool-aged predict the executive functions at school-aged: A longitudinal study of very low birth weight preterm children with normal early development.

Wen-Hao Chang, Nai-Wen Guo, Yuen-Ki Mo, Ching-Lun Tsai, Peng-Chen Chen

35. Demographics effects on executive function tests among elderly living with family and in nursing home

Christa Vidia Rana Abimanyu, Augustina Sulastri, Haryo Goeritno

36. Relationship between the verbal fluency task performance and cortical activity in time segments using a portable functional near-infrared spectroscopy

Kazuya Saita, Fumiko Kaneko, Shinnosuke Nosaka, Kazuaki Tanabe, Hitoshi Okamura

37. The Role of Executive Function in Agile Leadership: Evidence from Neuropsychological Tests

Lucia Widhianingtanti, Gilles van Luijtelaar, Augustina Sulastri, Fendy Suhariadi

38. Development of a Thai-language version of the Jansari Assessment of Executive Function (JEF)

Graham Pluck, Jennifer Chavanovanich, Phot Dhammapeera, Supakorn Chonwattanagul, Kamonchanok Choaknumkij, Panibhak Euakul-atichart, Chaipat Chunharas, Ashok Jansari

39. The relationship between spiritual health, spiritual bypass, and coping strategies among university students.

Yen-Yun Lin, Han-Yun Chang

# 40. Case report: neurocognitive function and related psychological internvetion in a patient with moyamoya disease.

Chiu-Ping Liu, Hsiu-Ting Hsu

41. The heterogeneous defective pattern of cognitive functions in children with mathematics learning disorder: a preliminary study

Syue Jing Li



### **POSTER SESSION 2**

Friday, July 7<sup>th</sup>, 08:30-09:00

01. Investigating attentional network dysfunction in Parkinson's disease using the Flanker task and non-linear analysis of EEG signals

Isobel French, Kuo-Hsuan Chang, Wei-Kuang Liang, Chi-Hung Juan

02. Brain imaging and neuropsychological features of neuronal intranuclear inclusion disease: a case report.

Pei-Jung Wu, Chih-Chien Wang, Li-Kai Huang

03. No Existence or Under-recognition? Empirical Evidence for the Prevalence and Impact of Neuropsychiatric Symptoms after TBI in Vietnam

My Ngan Nguyen, Skye McDonald, Fiona Kumfor, Ramon Landin-Romero, Halle Quang

04. Self-awareness of dysexecutive symptoms after moderate to severe traumatic brain Injury: a follow-up study

Fu-Ya Chuang, Fu-Ren Xiao, I-Chang Su

- 05. Problems in raising children of brain injury patients -from semi structured interview-Tomoko Uchida, Satoko Kataoka
- 06. Traumatic brain injury screening and neuropsychological functioning in women who experience intimate partner violence

Sarah Raskin, Olivia DeJoie, Carolyn Edwards, Chloe Ouchida, Jocelyn Moran, Olivia White, Michelle Mordasiewicz, Dorothy Anika, Blessing Njoku

07. Utilizing multi-informant questionnaire findings for clinical diagnosis on emotional disorders in pediatric neuropsychological evaluations

Tamar Silberg, Efrat Routledge, Hila Cohen, Adi Zakay-Kidron, Jana Landa, Jaana Ahonniska-Assa

08. The Integration of Mobile Apps and Ecologically Valid Materials with Neuropsychological Rehabilitation Programs in Helping Patients with Traumatic Brain Injuries Return to **Community Life** 

Yu-Hsuan Huang, Wen-Chih Lin

09. Behavioral Intervention Based on a Private and Realistic Behavioral Plan for Community-Dwelling Persons with Acquired Brain Injury Single-Case Experimental Design Study **Utilizing Real-Time Monitoring** 

Daisuke Shimizu

10. Neuropsychological outcomes after traumatic brain injury and post-traumatic epilepsy Yun-Hsuan Kuo, Jinn-Rung Kuo, Tee-Tau Eric Nyam, Che-Chuan Wang, Bei-Yi Su



11. A qualitative exploration of school-reentry outcomes among children with acquired brain injury after inpatient rehabilitation

Yu-Lun Chen, Amanda Botticello, John O'Neill

12. Context Effect and Modality Transfer in Controls and Individuals Following Moderate-to-Severe Traumatic Brain Injury

Eli Vakil, Simone Schwizer Ashkenazi, Simona Finazzi, Yaron Sacher

13. Accelerated long-term forgetting in patients with diffuse axonal injury

Paeksoon Park, Hiraku Mouri, Yui Masuda, Keita Ueda, Senkei Ueno, Shiho Ubukata, Toshiya Murai, Takashi Tsukiura

14. The characteristics of the alpha/beta ratio in patients with fatigue after traumatic brain injury in relation to workload

Chiho Ejiri, Zhiwei Luo, Chihiro Tsukagoshi, Toru Nagao, Rumi Tanemura

- **15.** The transition of self-adjustment in a patient with complicated mild traumatic brain injury Yu Lin Su
- 16. The relationship between specific physical symptoms and post-injury anxiety and depression symptoms in patients with concussion

Isabelle Cavanagh, Diana Velikonja, Jessica Murphy, Gihan Perera

17. Friendship after brain Injury: friendship satisfaction as a predictor of loneliness and quality of life.

christian salas

18. Attention Impairments Assessing by Comprehensive Nonverbal Attention Test before primary Chemotherapy treatment in Colorectal cancer patients

Chieh Ning Li, Nai-Wen Guo, Cheng-Yao Lin

19. Neuropsychological Outcomes and QOL in Pediatric Diffuse Intrinsic Pontine Glioma (DIPG)

Wan Ru Huang

20. Cognition and time after cancer treatment: Real-world breast cancer survivorship in Mexico

Brenda Robles-Rojas, Beneditt Cruz-Ramrez, Itzel Galn-Lpez, Paula Cabrera-Galeana, Erika Fabiola Martnez-Esquivel, Martha Patricia Velarde-Arcos, Carmen Lizette Glvez-Hernndez

21. Relationship between attentional performance and cognitive and emotional perception of newly diagnosed breast cancer patients in mexico.

Beneditt Cruz Ramrez, Brenda Robles Rojas, Itzel Galn Lopz, Erika Fabiola Martnez Esquivel, Martha Patricia Velarde Arcos, Carmen Lizette Glvez Hrnndez

- 22. A Pilot Study Developing a Psychosocial Intervention to Reduce Posttraumatic Stress Symptoms for Women with Non-Metastatic Breast Cancer in Taiwan ShihMin Hung, Ashley W-T. Wang
- 23. Neuropsychological Function and QOL in Long Term Survivors with Intracranial Germ Cell Tumors.

Wan Ru Huang

24. Resting-state functional connectivity associated with postoperative cognitive function and white matter tract disconnection in patients with brain tumors.

Kota Ebina, Mie Matsui, Kinoshita Masashi, Daisuke Saito, Yuta Takiguchi, Mitsutoshi Nakada

25. The hospital is connected to the home by a passageway" -A case of delusional misidentification syndrome presenting reduplicative paramnesia as a rationalization of geographical misorientation.

Yuko Meguro, Chika Oyama, Kimihiko Kaneko, Aya Ishigaki, Juichi Fujimori, Ichiro Nakashima

- 26. Novel Evaluation Tool for Arousal, Awareness and Spatial Attention in Patients with Neuropsychological Disorders using Head Mounted Display with Eye Tracking Yusaku Takamura, Yuya Ohashi, Satoko Ohmatsu, Noritaka Kawashima
- 27. Comparative efficacy of nonpharmacological interventions for postoperative delirium in adults: a systematic review and network meta-analysis Chia-Chi Hsiao, Hsiao-Yean Chiu
- **28. Brain connectivity network as a mediator in cocaine users and impulsivity** Yuvaraj Arumugam
- 29. Exploring the association between disinhibition and alcohol use disorder using traffic signals

Chih-Syuan Lin, Cheng-Ink Lo, Pin-Yang Yeh

30. Comparison of Multiple Methods of Lateralizing Cognitive Dysfunction in Temporal Lobe Epilepsy

Matt Harris, Paul Cernasov

31. Predicting the changes of memory and language functions after temporal lobe surgery in mandarin speaking patients with epilepsy: a preliminary study in Taiwan

Yi-Jiun Lu, Hsiang-Yu Yu, Chien-Chen Chou, Yen-Cheng Shih, Chun-Fu Lin, Sanford PC Hsu, Wei-Han Wang

32. Assessment of accelerated long-term forgetting: standardization of the RAVLT and WMS-III-LM for a long delay

Amlie Landry, Isabelle Rouleau, Dang Khoa Nguyen, Emma Colucci, Olivier Boucher

33. Could Cognitive Reserve Be a Potential Protective Factor for Post-ICU Cognitive Dysfunction in Vulnerable COVID-19 Critically III Survivors?

Marta Godoy-Gonzalez, Guillem Navarra-Ventura, Merc Jodar, Llus Blanch, Josefina Lpez-Aguilar, Sol Fernandez-Gonzalo

34. Neuropsychological Profile in BNT-162b2 COVID-19 vaccine related encephalopathy: A Case Report.

Wei-Lin Liu, Ya-Ling Huang

- **35. Exploring the relationship between subjective complaints and objective neuropsychological assessments in patients with Type 2 Diabetes** Yu-Chien Chiang, Chien-Ning Huang, Wen-Yuan Liu, Hsiao-Mei Chen, Bei-Yi Su
- **36. Moderated Mediation Analyses of the Relationships between Internal Carotid Stenosis, Functional Connectivity, Cognition, and Cognitive Reserve** Min-Chieh Wu, Kuo-Lun Huang, Ting-Yu Chang, Tsong-Hai Lee, Meng-Yang Ho
- 37. Identification of Behavioral Problems Leading to Eating Dependence Using Moss Attention Rating Scale in Acute Stroke Patients

Takayuki Miyauchi, Shotaro Sasaki, Rumi Tanemura

38. Mild stroke patients discharged within one month having problems with fatigue and forgetfulness in their post-discharge life

YUKO HAYAKAWA, Daichi Ishiwatari, Jun Sudo, Shigeta Miyake, Motohiko Takahashi, Masaru Mimura

- **39. Predicting Long-Term Cognitive Impairment In Survivors After Intracranial Hemorrhage** Sheng-Sian Lin, Pu-Tien Chiang, Bo-Ching Lee, Yu-Ruei Lin, Jiann-Shing Jeng, Hsin-Hsi Tsai
- 40. Application of neuropsychological rehabilitation program (NPRP): A case study of young ischemic stroke patient with multiple sclerosis.

Ching-Wen Su, Bei-Yi Su, Nai-Wen Guo

- 41. Intermittent theta-burst stimulation in the ASD population demonstrated a decremental effect on the repetitive behavior and alpha oscillations in resting EEG Tzu-Ling Liu, Hsing-Chang Ni, Heng Chien, Chiu-Fen Lin, Chi-Hung Juan
- 42. Dynamic prevalence of and risk factors for fatigue following traumatic brain injury: a systematic review and meta-analysis of observational studies

I-Hsing Liu, Chia-Jou Lin, Debby Syahru Romadlon, Hui-Chung Huang, Shu-Chun Lee, Pin-Yuan Chen, Hsiao-Yean Chiu



### **POSTER SESSION 3**

Friday, July 7<sup>th</sup>, 12:00-12:30

- 01. The differences between anger and disruptive behavior among adolescents with anxiety, depression, and anxiety-depression symptoms Han-Yun Chang, Jui-Chieh Chang
- 02. The Effectiveness of Using Mobile Devices for Dot Probe Task Training to Reduce Test Anxiety Among Taiwanese Adolescents: An Exploration Study Han-Yun Chang, Yi-An Lin
- **03. A Preliminary Study of qEEG in Adolescents with Anxiety and Depression** Han-Yun Chang, Chao-Hsiang Tsai, Min-Hsuan Tseng, Yu-Chi Liao
- 04. EEG connectivity indexes of prefrontal TMS effect in treatment-resistant depressed patients

Yi-Chun Tsai, Cheng-Ta Li, Wei-Kuang Liang, Norden E. Huang, Chi-Hung Juan

05. Investigating the differences in sleep parameters between weekdays and weekends using latent cluster analysis

Fan-Chi Hsiao, Chien-Ming Yang, Hsiu-Ting Yu

06. A Preliminary Exploration of qEEG and Attention in Adolescents with Sleep Maintenance Difficulties

Han-Yun Chang, Lin-Shan Chang, Yen-Ting Chu

- **07. Abnormally Hyper-Aroused Functional Brain Network In Sleep Disorders** E-Nae Cheong, YongWook Shin, Yumie Rhee, Namki Hong
- 08. Resting Sympathovagal Balance as A Psychophysiological Marker of Theory of Mind in Young Adulthood

Bo-Cheng Hsu, Yen-Hsuan Hsu, Min-Yi Hsu, I-Mei Lin, Chia-Ying Weng

09. Social cognitive deficit is associated with visuomotor coordination impairment and dopamine transporter availability in euthymic bipolar disorder

Ying Tsung Tsai, Yu-Lien Huang, Hui Hua Chang, Tsung-Hua Lu, Wei Hung Chang, Nan-Tsing Chiu, Chia-Fen Hsu, Yen Kuang Yang, Po See Chen

- 10. The mediating effect of fatigue on the relationship between acute phase symptoms of COVID-19 and depression during the recovery period Fan-Chi Hsiao, Ya-Wen Jan
- **11. Brain Connectivity Following Emotion Arousal after Mindfulness-based Stress Reduction** Changwei Wu, Rungravee Roschuen, Chih-Mao Huang, Der-Yen Han, Ai-Ling Hsu



**12.Relationship between depression and prospective memory in young Mexican adults** Mario Mandujano Torres, Georgina Cardenas-Lopez

#### 13. Just another simple companion robot

Ting-Wei Hou, Wan-Chiao Huang, Zhi-Yi Chiu, Wei-Sheng Huang, Jhen-Ling Lin, Wan-Hsuan Sung, Chi-Yun Yu

- **14.Attention Inhibition toward Emojis among College students with Depressive Tendency** Hsin-Ting Hsieh, Yu-Chi Liao
- 15.Face Mask Covering Different Facial Feature Affected the Recognition of Different Emotion by Preschoolers

June-Hui Huang, Nai-Wen Guo

16.Association between emotional recognition and cognitive flexibility in inmates in a colombian prison center

Maria Cuervo, Natalia Cadavid, Maria Antonia Chagendo, Eduar Herrera, Carlos Dorado, Sofia Boringhieri, Merce Jodar

17.Emotional closeness mediates the association between perceived stress and cognitive function

Ji Soo Lee, Hyeyoung Park

- **18.Laterality of functional smiles and its relation to facial trustworthiness Introduction** Matia Okubo, Kenta Ishikawa
- 19.Neuropsychological-based Relapse Prevention Program of Drug Offenders in Correctional Facilities - A Case Report.

Lin yu-chun, Yang Ya-Ra, Liao Yu-Chi, Wong Hong Song

- 20.The Effectiveness of a Short-term Executive Function Enhancement Program using Robotics Programming for School-aged Children Tzu-Lo Ni, Ting-Li Wang, Nai-Wen Guo, Ching-Hua Shen
- 21.Neuropsychological-based Relapse Prevention Program in A Case of Involuntary Commitment for Sexual Offending - A Case Report

Lin yu-chun, Yang Ya-Ra, Liao Yu-Chi, Wong Hong Song

22.The effects of applying neuropsychological rehabilitation program in patient with meningoencephalitis from sub-acute stage to resume work: a preliminary report Ching-Hua Shen, Nai-Wen Guo, Yao-Hong Guo, Yuen-Ki Mo, Wen-Han Chou, Yu-Ching Lin



23.Therapeutic effects of a short-term cognitive rehabilitation combining computerized neuropsychological training for patients with cognitive impairment in subacute stage: a case report

Ching-Hua Shen, Nai-Wen Guo, Yao-Hong Guo, Hsu-Lin Chieh, Yuen-Ki Mo, Chun-Hui Yen, Yu-Hsuan Tsai, Wen-Han Chou, Yu-Ching Lin

24. Effects of motor learning on visual-motor illusion in healthy individuals

Katsuya Sakai, Tsubasa Kawasaki, Yumi Ikeda, Junpei Tanabe, Akari Matsumoto, Kazu Amimoto

25.Cerebral hemodynamics during motor imagery of self-feeding with chopsticks: differences between dominant and non-dominant hand

Moemi Matsuo

26.Differences between Clinical Neuropsychologists in Japan and the United States: Education, Competence, and Occupational Identity.

Yoko Okamura

- **27.An analysis of Tamil diglossia in cognitive test administration** Porrselvi Ammaiappan Palanisamy, Ragaviveka Gopalan, Sneha C.R.
- 28.Papadum Test: Performance of Hindi and Kannada Speaking Illiterate and Low Educated Individuals across Rural Populations in Eastern and Southern India Nayanika Sengupta, Rahul Venkatesh, Amool Singh, Aparna Dutt, Jonathan Evans
- 29.Utilizing race-adjusted versus non-race adjusted normative data for diagnosis of mild cognitive impairment (MCI) in demographically-diverse community dwelling inividuals Katherine Chang, Cuiling Wang, Mindy Katz, Desiree Byrd, Laura Rabin
- 30.Validation of the Bengali version of the Rey Auditory Verbal Learning Test for detecting Vascular mild cognitive impairment and Vascular Dementia in Kolkata, India Olivia Nathan
- 31.Responses from a Continuing Educational Series for Chinese-speaking Certified Dementia Practitioners

Joyce Tam, Jin Xiao Tan, Phoebe Ka Yin Tse, Winnie Lam

32.Pilot Study of the Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) and Raven's Standard Progressive Matrices (RPM) in elderly Chinese Immigrant in Chicagoland

Irene Wanching Liem, Li Ting Eileen Ng, Benjamin Pyykkonen

33. Feasibility and Utility of Coin in the Hand Test as a Performance Validity Test for the Indian Population

Rahul Venkatesh, Nayanika Sengupta, Aparna Dutt, Narinder Kapur



34. Right-Hemisphere Dominance of the Event-Related Potential Correlates with That of the Anterior Insula

Yoshimi Ohgami, Yasunori Kotani, Nobukiyo Yoshida, Hiroyuki Akai, Akira Kunimatsu, Shigeru Kiryu, Yusuke Inoue

**35. Understanding perspectives** Miguel Ángel Sebastin

**36. Activation of the anterior insula evoked by switching and feedback stimuli** Yasunori Kotani, Yoshimi Ohgami, Nobukiyo Yoshida, Hiroyuki Akai, Akira Kunimatsu,

Shigeru Kiryu, Yusuke Inoue

- **37. Exploring the impact of self-monitoring on neural representations of food cues: an intersubject representational similarity analysis approach** Pin-Hao Chen, Feng-Chun Chou, Chih-Yuan Chang
- 38. Unlocking Resilience: Augmenting Resilience Levels through Neuromodulation of the Dorsolateral Prefrontal Cortex (dIPFC) Kanthika Latthirun, Cheng-Ta Yang, Wai-Tong Chan, Yi-Jen Wu
- **39. Protocol of Generating Sub-Dataset From a Neuropsycological Database** Shinta Wahyuningrum, Gilles van Luijtelaar, M.P.H Hendriks, Augustina Sulastri, Ridwan Sanjaya
- 40. Metacognitive Training Effects on their Positive symptoms, Self-efficacy, and Cognitive Function in Community-Dwelling Psychosis during the COVID-19 Pandemic.

Kanae Kuroda, Takaharu Hori, Atsuko Hayashi



### **POSTER SESSION 4**

Sturday, July 8<sup>th</sup>, 08:30-09:00

- **01. Cognitive Factors Related the Context Picture Task in Community-Dwelling Older** Sunagawa Kosaku
- 02. Exploring Associations Between Cortical Thickness-Based Brain Age-Gaps and Psychosocial Factors in Older Adults

Gisele Cheong, Junhong Yu

03. Effects of home-based DVD exercise program on cognitive function for communitydwelling older adults

Atsuko Hayashi, Minori Katada, Takashi Maeda, Ayumi Tahara, Tomoko Uchida, Momoka Ijima

04. Relation of Negative BOLD in DMN during Long-term Aerobic Exercise in fMRI Elderly study

Hong-Yi Wu, Chih-Mao Huang, Changwei W. Wu, Jyh-Horng Chen

- 05. The Interventions of Clinical Psychologists for Behavioral Disturbances in Community-Based Integrated Care for Old People (ICOPE): A Qualitative Pilot Study Pei-Ju Cheng, Nai-Wen Guo, Huang-Chih Chou
- 06. The Effects of Individual Differences in Executive Function on Prefrontal Lobe Activation in Healthy Adults: An fNIRS Study

Tomoko Iwasaki, Osamu Nakata, Rikio Yamagata, Hisao Ohnishi

07. Age-related Change Differences in The Learning Benefits And Underlying Network Connectivity between Errorless And Trial-and-error Learning Methods

Madoka Yamashita, Tetsuya Shimokawa, Rumi Tanemura

- 08. Current Status and Characteristics of Auditory Processing in Healthy Young Adults -Focusing on Listening Difficulty, Auditory Processing Tests, and Pupil Diameter Satoko Kataoka, Chinami Ishizuki, Hiroshi Fukuda, Shinya Ushio, Sanae Hatada, Yutaka Yano, Kenji Hagihara, Junichi Inatomi, Masatoshi Katsura, Hideki Miyaguchi
- 09. Lower educational level sample performance on the Multicultural Neuropsychological Scale (MUNS)

Alberto Fernndez, Gabriel Juregui, Gazul Rotela Leite, Ignacio Bellanti, Julieta Castro Brunello, Alina Valeria Arregui, Valentina Seita, Macarena Fernndez

10. Graph Theoretical Analysis of Prospective Memory Related Cerebral Network Connectivity in Non-Demented Adults

Wen Yi Chiang, Jun-Cheng Weng, Vincent Chin-Hung Chen, Yuan-Hsiung Tsai, Kuo-Li Pan, Meng Lee, Tai-Hsin Hung, Yen-Hsuan Hsu

> INS 2023 Taiwan Meeting The International Neuropsychological Society Meeting Taipei, Taiwan | July 6-9, 2023



11. Aging affects alerting efficiency on the emotional Attention Network Test

Michael K. Yeung

12. The influence of social information and self-referencing on associative memory: an examination of age-related interaction effects

Yu-Ling Chang, Min-Ying Wang

13. Age-related differences in hippocampal subfield volumes are linked to associative memory recognition

Ya-Mei Lai, Yu-Ling Chang

14. Significant decay continuously in the when component is differently associated with specific hippocampal subfield volumes in individuals with amnesic mild cognitive impairment

Chia-Hsing Chi, Yu-Ruei Lin, Yu-Ling Chang

15. Comparing the Application of Screening Tests in Mild Cognitive Impairment Patients: CMSE,MMSE and CASI

Hsiu-Ting Hsu, Chiu-Ping Liu

- **16. Eye tracking-based cognitive performances in MCI seniors and healthy controls** Kuei-An Li, Sung-En Chien, Chia-Yang Chang, Yu-Ling Chang, Ta-Fu Chen, Su-Ling Yeh, Shao-Yi Chien
- 17. The efficacy of a new-learning executive function training program with robotics programming for aged people: a pilot study

Ting-Li Wang, Tzu-Lo Ni, Nai-Wen Guo, Ching-Hua Shen

18. Acceptability of Volunteer Activities in People with Mild Dementia: A Preliminary Survey on Japanese Facility Staff

Erika Kamo, Yuma Sonoda, Hisatomo Kowa

19. Alzheimer's disease affects controlled retrieval, the more age-resistant process of semantic executive

Laurent Lefebvre, Sandra Invernizzi, Isabelle Simoes Loureiro

- 20. Examining the Validity and Diagnostic Accuracy of the Mini Addenbrooke's Cognitive Examination-III Bengali Version in Vascular Mild Cognitive Impairment and Dementia Maanwi Sharma, Ranita Nandi, Aparna Dutt, Jonathan Evans
- 21. Detecting Joint Attention Deficits in Patients with Alzheimer's Disease: An Eye-Tracking Study

Chiyoko Nagai, Yuki Matsuda, Fumiaki Saito



22. Heterogeneity of Alzheimer's disease identified by neuropsychological test profiling

Truc Nguyen, Li-Kai Huang, Chaur-Jong Hu, Chih-Yang Yeh, Wei-Chung Yang, Ming-Chin Lin

23. Validation of the CogMate for Dementia Screening in Taiwan

Yi-Chun Kuan, Cheng-Chang Yang, Chaur-Jong Hu

24. Optimizing the measurement of subjective cognition in MCI and AD: harmonizing selfperceived cognitive functioning items across 19 international aging studies

Laura Rabin, Douglas Tommet, Richard Jones, Milushka Elbulok-Charcape, Paul Crane, Sietske Sikkes

25. Evaluation of Memory Monitoring and mental health in Japanese Patients with Mild Cognitive Impairment and with Mild Alzheimer's Disease

Atsuko Hayashi, Hisatomo Kowa, Hisatsugu Tachibana, Kazuo Sakai, Yasuji Yamamoto, Ichiro Sora

26. Analysis of differences in neuropsychological function between senile depression and dementia based on medical records review

Kuan-Yu Chen

27. A cheat sheet for early detection of AD and predictive markers for progression in MCI- A resting-state EEG study

Kwo-Ta Chu, Ming-Hsiu Wu, Jong-Ling Fuh, Shuu-Jiun Wang, Norden E. Huang, Wei-Kuang Liang, Chi-Hung Juan

28. Effects of Age and Education on Montreal Cognitive Assessment Taiwanese Version: Moderated Moderation Analyses

Min-Chieh Wu, An-Ju Chang, Kuo-Lun Huang, Ting-Yu Chang, Tsong-Hai Lee, Meng-Yang Ho

29. Hippocampal anterior-posterior longitudinal trajectory change and its relationship with episodic memory in alzheimer's disease and semantic dementia

Fang Lan, Muireann Irish, Marshall Dalton, Olivier Piguet

30. Remote visitation for older adults with dementia in nursing home during the COVID-19 pandemic

Kazue Noda, Motoko Kawakami, Jiro Sagara, Toru Nagao, Rumi Tanemura

31. Comparison of episodic memory feeling-of-knowing test performance in normal elders, individuals with subjective cognitive decline, mild cognitive impairment, and Alzheimer's disease

Yu-Hsuan Sun, Mau-Sun Hua

32. Impoverished detail with preserved schematic spatial knowledge of remote and recent environments in patients with medial temporal and fornix lesions

Adrienne Li, Xuehui Lei, R. Shayna Rosenbaum, Asaf Gilboa

33. Association between Long-term Exposure to Fine Particulate Matter and Episodic Memory Function in Older Adults: A Moderated Mediation of Social Activity and Brain Volume

Hyeyoung Park, Jeanyung Chey, Jinkook Lee

34. Quality of life and participation in society of people with aphasia

Mika Konishi, Fumie Saito, Yukiko Miyasaka, Michitaka Funayama, Masaru Mimura

35. Syllable Discrimination of People with Developmental Stuttering Using P300 of Eventrelated Potential Components

Fumiko Anzaki, Shogo Kiryu, Mitsuyo Shibasaki, Sayoko Yamamoto

- **36. Development of a Thai-language Lexical Decision Task** Graham Pluck, Suphasiree Chantavarin
- 37. Development of an everyday cognitive function assessment battery for individuals with intellectual disabilities

Mingyi Wu, Chwen-Ying Su, Nai-Wen Kuo

38. Intellectual Disability in Down Syndrome: A Neuropsychological Case Study in the Philippines

Rhalf Jayson Guanco, Wendy Jel Guanco

39. The Effect of Prism Adaptation on Spatial Reference Frames: The Position of Line Presentation and Its Reference Frame on Line Bisection Task

Toshiki Takeuchi, Hidekazu Saito, Hisaaki Ota

40. Effects of neck muscle vibration on subjective straight ahead and sitting balance in strokes with and without unilateral spatial neglect

Kazushige Iwakawa, Hiroka Komatsu, Naoya Nozaki, Akari Horikawa, Kazu Amimoto







Taiwan Association of Clinical Psychology



**Bioland Technology Corporation** 



Wisdom Culture and Education Organization



**Chinese Behavioral Science Corporation** 







Chinese Behavioral Science Corporation 9F., No. 206, Sec. 2, Nanchang Rd., Taipei City 10084, Taiwan (R.O.C.) TEL: +886-2-2365-6349 • FAX: +886-2-2365-0525 • E-mail: cbsc.test@gmail.com



REGISTER Facebook : Thai Neuropsychology Society E-mail : thaineuropsyegmail.com

# The 2<sup>nd</sup> International Thai Neuropsychology Society (TNS) Conference

#### **Topic : Next Step of Neuropsychology**

Integration of the Traditional - Based Approach to the Technology-Based Approach

