



MBI Symposium
Mind-Body Interface Symposium

13th Mind-Body Interface International Symposium
PNIRASia-Pacific Symposium

TIME Matters

Finding the Rhythm and Mastering
the Circadian for Mind-Body Wellbeing

20
23

Oct.28-30
Taichung, Taiwan



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CHAIRMAN'S MESSAGE



Dear colleagues and friends,

It is my great pleasure to announce the 13th Mind-Body Interface (MBI) International Symposium is to be held physically in Taichung, as well as going virtual on Oct. 28-30, 2023. Organized annually by the Mind-Body Interface Research Center (MBI-lab) at China Medical University Hospital, Taichung, Taiwan, we are delighted to co-chair this 3-day international conference with the PNIRASia-Pacific Symposium for six consecutive years.

The main theme this year is "TIME matters: Finding the Rhythm and Mastering the Circadian for Mind-Body wellbeing." Circadian Rhythm plays a vital role in good health and well-being and even in a productive and fulfilling life. Adequate sleep not only helps to keep both mental and physical health in balance but also helps support growth and development in children and adolescents. On the other hand, disturbances of the circadian rhythms have been associated with both chronic physical and mental disorders. Thus, maintaining a balanced circadian rhythm is important not only for the heart and the brain but also essential for our immune system. Nowadays, the development of new technology and evidence-based treatments, including wearable devices, photobiomodulation (PBM), mindfulness, yoga, meditation, nutrition, exercise, cognitive-behavior therapy, and acupuncture, to restore the disturbed circadian rhythms become a huge topic of interest.

The MBI International Symposium has been vigorously promoting a global agenda of translational neuroscience by encouraging interdisciplinary research, and integrating biomedical discovery and development focused on patients, to provide better care and service in the field of mental health. The symposium features a broad range of topics, including immunology, metabolic processes and molecular science, psychopharmacology, psychology, addiction science, and the brain-gut-microbe axis as well as biological processes and factors underlying the links between diet, nutrition, and mental health from the perspective of Western medicine and traditional Chinese medicine (TCM). Furthermore, there will be a strong focus on the use of brave approaches and novel technology, artificial intelligence, big data, neuroimaging, personalized medicine, lifestyle intervention, health promotion and disease management, and epidemiology and population studies in brain disorders. Our programme includes keynote speeches, state-of-the-art symposia, oral and poster presentations, as well as Mind-Body Workshop. Early-career researchers are encouraged to join us and bursaries are provided to apply.

The MBI Symposium is insightful and inspiring with active discussion among participants. With the great Taiwanese hospitality and the richness of the cultural and natural heritage of Formosa, the 13th MBI Symposium is guaranteed to be another wonderful event as it has been in previous years. We look forward to greeting our biomedical researchers, psychiatrists and other health professionals worldwide in Taichung.

Prof. Kuan-Pin Su, M.D., Ph.D.

Chairman, 13th MBI International Symposium

Professor, College of Medicine, China Medical University (CMU), Taichung, Taiwan

Director, Mind-Body Interface Research Center (MBI-Lab), China Medical University Hospital, Taichung, Taiwan

Deputy Superintendent, An-Nan Hospital, China Medical University, Tainan, Taiwan

Founding President, Taiwanese Society for Nutritional Psychiatry Research (TSNPR)

COMMITTEES

Organizing Committee

Kuan-Pin Su, M.D., Ph.D.

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Deputy Superintendent, An-Nan Hospital, China Medical University, Tainan, Taiwan
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Professor, Immunophysiology, University of Illinois, USA
Editor-in-Chief Emeritus, Journal of Brain, Behavior, and Immunity

David Mischoulon, M.D., Ph.D. | USA

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ACKNOWLEDGEMENT

Organizer



台灣營養精神醫學研究學會
Taiwanese Society for Nutritional Psychiatry Research

Co-organizer



Funding Sources



中國醫藥大學附設醫院
China Medical University Hospital



Sponsors



PROGRAMME OVERVIEW

	Day 1 (Oct. 28, 2023)			Day 2 (Oct. 29, 2023)	
	Stanford Lecture Hall, 2F	Classroom 203, 2F		Stanford Lecture Hall, 2F	Classroom 203, 2F
0800-0840	Registration		0800-0900	Registration	
0840-0900	Opening Ceremony & Group Photo				
0900-0950	PK1. Plenary Keynote Eric Chen		0900-0950	S21. 5-min Poster Blitz	0900-1000 WK21. 睡眠障礙臨床工作坊 (I) Workshop of Sleep Disturbance
0950-1020	Coffee Break				
1020-1200	S11. PNIRSA Asia-Pacific Session -Chair: Keith W. Kelley -Co-chair: Melissa Rosenkranz. Iliia N. Karatsoreos Nicolas Rohleder Bach Tran.		1020-1200	S22. Nutritional and Behavioral Interventions for Mental Health of Older Individuals -Chair: David Mischoulon -Co-chair: Olivia I. Okereke Chirag M. Vyas Vivian Anable Eme	1020-1120 WK22. 睡眠障礙臨床工作坊 (II) Workshop of Sleep Disturbances
1200-1330	Lunch & Poster Session		1200-1330	Lunch & Poster Session	
1330-1420	PK2. Plenary Keynote Qiang Liu	1330-1430 WK11. 睡眠與營養工作坊 (I) Workshop of Sleep and Nutrition	1330-1500	S23. Mastering the Circadian Rhythm for Mind-Body Wellbeing: From Technology to Therapy -Chair: Kuan-Pin Su Rayleigh Ping-Ying Chiang, Jihwan Myung Chun-Hung Chang	1400-1500 WK23. 睡眠與中醫工作坊 (I) Workshop of Sleep and TCM
1420-1450	Coffee Break		1500-1530	Coffee Break	
1450-1600	S12. Oral Presentation Session Goh Xue Xin (OP008) Nicholas Tze Ping Pang (OP011) Sergey Shityakov (OP002)	1450-1610 WK12. 睡眠與營養工作坊 (II) Workshop of Sleep and Nutrition	1530-1620	PK3. Plenary Keynote Wolf Marx	1530-1630 WK24. 睡眠與中醫工作坊 (II) Workshop of Sleep and TCM
1600-1730	S13. ISSFAL Session -Chair: Richard Bazinet, Tom Brenna, Kevin Lin		1620-1730	S24. ISNPR Session -Chair: Wolf Marx Melissa M. Lan Annabel Mueller-Stierlin Caroline Wallace	
1730-2100	Welcome Dinner		1730-1800	Award Ceremony & Closing Remark	

PK: Plenary Keynote; **S:** Session; **WK:** Workshop; **PNIRS:** Psychoneuroimmunology Research Society; **ISSFAL:** International Society for the Study of Fatty Acids and Lipids; **ISNPR:** International Society for Nutritional Psychiatry Research; **TCM:** Traditional Chinese Medicine.

ONLINE ACCESS TO THE SYMPOSIUM

Online Meeting Links via ZOOM

Day 1: Sat., 28 Oct. 2023



<https://zoom.us/j/9077861815>

Day 2: Sun., 29 Oct. 2023



<https://zoom.us/j/95236422427>

Online Q&A (Slido)



<https://app.sli.do/event/9R7hgnJ8zEMwHP76cztqBZ>

E-Poster



<https://mbisymposium.org/2023/eposter.php>

Symposium Feedback Survey



<https://shorturl.at/hmqHZ>

PROGRAMME DETAILS

Saturday, October 28

MAIN CONFERENCE

Conference Venue: Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan

Welcome Dinner: 曆秘, 2F., No. 115, Section 2, Gansu Road, Xitun District, Taichung City

0800-0840	Registration
0840-0900	Opening Ceremony and Group Photo
	PK1. Plenary Keynote
0900-0950	Lifestyle Risk and Protective Factors for Youth Mental Health: Findings from the Hong Kong Youth Epidemiological Study (HK-YES) Eric Chen, Hong Kong
0950-1020	Coffee Break
	S11. PNIRASia-Pacific Session: The Promise and Peril of Mind-Brain-Body Interactions in Health and Disease. Keith W. Kelley (Chair)
	Jekyll & Hyde: Mind-Brain Interactions in Asthma Melissa Rosenkranz (Co-chair)
1020-1200	Stress Pathways to Disease: Role of Inflammation Nicolas Rohleder
	The Role of the Circadian Clock in Brain-Body Interactions: Focus on Neuroimmune Function. Iliia N. Karatsoreos
	Mindfulness Research and Its Applications in Health Interventions: A Global Mapping Study from 1946 to 2020 Bach Tran
1200-1330	Lunch and Poster Session
	PK2. Plenary Keynote
1330-1420	Mood-induced Metabolic Reprogram in Cancer Development Qiang Liu, China
1420-1450	Coffee Break
	S12. Selected Oral Presentations
	Total Oxidant Capacity and Leukocyte Telomere Length in Schizophrenia: A Case-Control Study. Goh Xue Xin, Malaysia
	A Pilot Study of the Efficacy of a Transdiagnostic Single-Session Circus-Based Mindfulness Programme in Rural North Borneo. Nicholas Pang, Malaysia
	Exhaustive in Silico Design and Screening of Novel Antipsychotic Compounds with Improved Pharmacodynamics and Blood-Brain Barrier Permeation Properties. Sergey Shityakov, Russia

S13. ISSFAL Session

Prof. Richard Bazinet (Chair)

A New Method Reveals that Hepatic Lipogenesis is Upregulated to Supply Palmitic Acid to the Developing Brain of Mice Fed Low Palmitic Acid from Birth: Implications for the Use of Palmitic Acid in Infant Formula.

1600-1730

Richard Bazinet, Canada

Long-term Support of Neurocognitive Development Requires Balanced Fatty Acid Intake at Critical Periods: Two Recent Randomized Controlled Trials.

Tom Brenna, USA

Arginine Methylation in Vascular Dementia

Kevin Lin, USA

1730-2100

Welcome Dinner

PK: Plenary Keynote, **S:** Session, **PNIRS:** Psychoneuroimmunology Research Society, **ISSFAL:** International Society for the Study of Fatty Acids and Lipids.

EDUCATIONAL WORKSHOPS

Workshop Venue: Classroom 203, 2F, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

1330-1430

WK11.睡眠與營養工作坊 (I) Sleep and Nutrition

1450-1610

WK12.睡眠與營養工作坊 (II) Sleep and Nutrition

WK: Workshop

Sunday, October 29

MAIN CONFERENCE

Conference Venue: Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

0800-0900	Registration
0900-0950	S21. 5-min Poster Blitz Improvement on Alzheimer's Disease and β -Amyloid-Induced Toxicity by Black Raspberry. Yohannes Tandoro, Indonesia The Psychoneuroimmunological Model of Childhood Trauma on Loneliness and Depression in Older Adults. Rachel R. Jin, Hong Kong Pharmacologic Interventions for the Prevention of Postoperative Delirium in Elderly Patients: A Network Meta-Analysis of Randomized Controlled Trials Ting-Hui Liu, Taiwan A 12-week Randomized Placebo-Controlled Trial of Adjuvant Omega-3 Polyunsaturated Fatty Acids in the Treatment of Major Depressive Episode of Bipolar Disorder. Halliru Zailani, Nigeria Plasma Cell-Free RNA Profiling of Vietnamese Alzheimer's Patients Reveals a Linkage with Chronic Inflammation and Apoptosis: a Pilot Study. Anh Phuc Hoang Le, Vietnam EEG-based Automated Mental Disorder Detection Using Artificial Intelligence. Lua Ngo, Vietnam Sleep Disorders in the Transitional Age Population During the COVID Pandemic Akhil S. Pola, USA Life Expectancy, Estimated Loss-of-life Expectancy, and Medical Costs of Persons with Bipolar Disorder (BD) in Taiwan: A Nationwide Population-Based Study. Ikbal Andrian Malau, Indonesia Estimation of Lifetime Risks and Life Expectancy of Panic Disorder: A Nationwide Cohort Study in Taiwan. Kai-Jie Yang, Taiwan
0950-1020	Coffee Break
1020-1200	S22. Nutritional and Behavioral Interventions for Mental Health of Older Individuals David Mischoulon, USA (Chair) Olivia I. Okereke, USA (Co-chair) Nutritional And Behavioral Interventions for Depression in Older Individuals: Overview and Description of a New Study of Omega-3 Fatty Acids. David Mischoulon, USA Vitamin D and Omega-3 Trial: Depression Endpoint Prevention (VITAL-DEP): Study Design and Key Findings. Olivia I. Okereke, USA

	<p>The Mechanistic Roles of Biomarkers in a Study of Vitamin D3 and Omega-3 Supplements for Late-Life Depression Prevention. Chirag M. Vyas, USA</p> <p>Design and Implementation of a Homecare Worker Training Program to Improve Behavioral Symptoms and Quality of Life Among Patient and Family Member Dyads Facing Cognitive Impairment and Dementia Vivian Anable Eme, USA</p>
1200-1330	Lunch and Poster Session
1330-1500	<p>S23. Mastering the Circadian Rhythm for Mind-Body Wellbeing: From Technology to Therapy Kuan-Pin Su, Taiwan (Chair)</p> <p>Melatonin Regulates Circadian Clock Genes and Peripheral Inflammatory and Neuroplasticity Biomarkers in Depression and Anxiety. Kuan-Pin Su, Taiwan</p> <p>Sleep Technology: The Past, Current and the Future. Rayleigh Ping-Ying Chiang, Taiwan</p> <p>Emergence Dynamics of the Circadian Clock Network Jihwan Myung, South Korea</p> <p>Efficacy of Noninvasive Brain Stimulation for Treating Depression in Patients with Traumatic Brain Injury: A Meta-Analysis and Meta-Regression of Randomized Controlled Trials. Chun-Hung Chang, Taiwan</p>
1500-1530	Coffee Break
1530-1620	<p>PK3. Plenary Keynote Recent Advances in Nutritional Psychiatry: Novel Mechanisms, Interventions, and Guidelines Wolf Marx, Australia</p>
1620-1730	<p>S24. International Society for Nutritional Psychiatry Research: A Showcase of Recent Research Updates Wolf Marx, Australia (Chair)</p> <p>Ultra-Processed Food Consumption and Mental Health: A Systematic Review and Meta-Analysis of Observational Studies Melissa M. Lane, Australia</p> <p>Manipulating the Microbiome for Mental Health: Targeting the Gut-Brain Axis Caroline Wallace, Canada</p> <p>Nutrition-Risk Screening and Dietary Assessment in Nutritional Psychiatry Research – More than Nutrients Only Annabel Mueller-Stierlin, Germany</p>
1730-1800	Award Ceremony & Closing Remark

PK: Plenary Keynote; S: Session; WK: Workshop; ISNPR: International Society for Nutritional Psychiatry Research

EDUCATIONAL WORKSHOPS

Workshop Venue: Classroom 203, 2F, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan

0900-1000	WK21. 睡眠障礙臨床工作坊 (I) Sleep Disturbances
1020-1120	WK22. 睡眠障礙臨床工作坊 (II) Sleep Disturbances
1400-1500	WK23. 睡眠與中醫工作坊 (I) Sleep and TCM
1530-1630	WK24. 睡眠與中醫工作坊 (II) Sleep and TCM

WK: Workshop

PROGRAMME DETAILS

October 28, 2023

Opening Ceremony

Time: 08:40-09:00

Venue: Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Opening Remark by Symposium Chairman

Kuan-Pin Su, M.D., Ph.D.

Professor, College of Medicine, China Medical University (CMU), Taichung, Taiwan

Deputy Superintendent, An-Nan Hospital, China Medical University, Tainan, Taiwan

Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

Founding President (2016-2022), Taiwanese Society for Nutritional Psychiatry Research (TSNPR)

Honorary Professor of Institute of Psychiatry-King's College London, UK

Opening Remark by Honorary Guests

Chon-Haw Tsai, M.D., Ph.D.

Dean, College of Medicine, China Medical University, Taichung, Taiwan.

Director, Department of Neurology, China Medical University Hospital, Taichung, Taiwan.

Professor, School of Medicine, China Medical University, Taichung, Taiwan.

Vice Director, Neuroscience and Brain Disease Center, China Medical University, Taichung, Taiwan.

Director, Neurology Research Laboratory, China Medical University Hospital, Taichung, Taiwan.

PK1. PLENARY KEYNOTE SPEECH

TIME 0900-0950, Sat, Oct. 28 2023

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Moderator: Kuan-Pin Su, M.D., Ph.D.

Professor, College of Medicine, China Medical University (CMU), Taichung, Taiwan

Deputy Superintendent, An-Nan Hospital China Medical University, Tainan, Taiwan

Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

Honorary Professor of Institute of Psychiatry-King's College London, UK

Founding President (2016-2022), Taiwanese Society for Nutritional Psychiatry Research (TSNPR)

Lifestyle Risk and Protective Factors for Youth Mental Health: Findings from the Hong Kong Youth Epidemiological Study (HK-YES)

Eric Chen, M.D., Ph.D.

Chair Professor of Psychiatry, University of Hong Kong

Chi-Li Pao Foundation Professor in Psychiatry; University of Hong Kong

Summary

Young people are most vulnerable to the development of mental disorders across all age groups, yet they are least likely to seek professional help. Deterioration in youth mental health has been observed globally over the past decade. Amongst various possible factors, the rapid environmental changes – including lifestyle – appear to play a critical role. Using data from the recently completed first household-based epidemiological study on youth mental health in Hong Kong (HK-YES), we examined potential lifestyle factors associated with 12-month major depressive episode (MDE) in addition to other personal and environmental risk factors in 3030 young people. Specifically, we found that smartphone overuse, poorer sleep quality, frequent nightmares, fewer days of regular exercise, and irregular breakfast habits are significantly associated with 12-month MDE. In addition, dissatisfaction with living space was also found to be among the significant factors. These are factors that are generally “modifiable” and can be critical for youth mental health interventions. The relatively lower stigma profile of these factors can also help open discussions with young people and improve engagement. How these factors may each have an impact on youth mental health and may be targeted in future interventions are discussed.

S11. PNIRSAAsia-Pacific SESSION

TIME 10:20-12:00, Sat, Oct. 28 2023

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

The Promise and Peril of Mind-Brain-Body Interactions in Health and Disease

Chair: Keith Kelley, Ph.D.

*Professor Emeritus of Immunophysiology University of Illinois
Editor-in-Chief Emeritus Brain, Behavior, and Immunity*

Co-Chair: Melissa Rosenkranz, Ph.D.

*Assistant Professor of Psychiatry, University of Wisconsin-Madison
Distinguished Chair in Contemplative Neuroscience*

Summary

The intimate relationships that exist between mind, brain and body, particularly those that are involved in the regulation of the immune system, have been recognized for more than 100 years. Theories related to the mechanisms and consequences of these interactions have evolved over time. But what has remained consistent is the understanding that these relationships are essential to the maintenance of health and wellbeing. They optimize our biological and behavioral responses to the environment and anticipate threats to homeostasis. An understanding of the dark side of these relationships has also persisted across time, where the activities and processes of the mind and brain lead to dysregulation of the immune system and contribute to deterioration of health and wellbeing.

In this PNIRSAAsia-Pacific symposium, each speaker will discuss different aspects of mind-brain-body interactions and their role in promotion of health and disease. Professor Nicolas Rohleder, chair of the Health Psychology program at the Friedrich-Alexander University Erlangen-Nürnberg, will begin the symposium by delineating the physiological pathways that link contents of the mind, including psychological stress and negative emotions, with activities of the immune system. He will present data illustrating the importance of these pathways in promoting inflammation and how dysregulation of this relationship during chronic stress contributes to some of the most prevalent and pervasive diseases. Professor Melissa Rosenkranz, Distinguished Chair in Contemplative Neuroscience at the University of Wisconsin-Madison, will follow this presentation with a discussion of these relationships in the context of a highly prevalent chronic inflammatory disease of the airways – asthma. Dr. Rosenkranz will share data describing the priming effect that psychological stress has on airway inflammatory responses in asthma and how these responses lead to deterioration in brain health, contributing to long-term cognitive decline and risk for dementia. She will then highlight mental training as a clinical approach to harness brain-body interactions to improve disease control in asthma. Dr. Bach Tran, Professor of Health Economics at the Hanoi Medical University and Adjunct Faculty at the Johns Hopkins Bloomberg School of Public Health will build on this, providing a scoping review of the literature on mindfulness research and its applications in health interventions. In his talk, Dr. Tran will describe dominant themes in mindfulness-related research over the past 75 years and what the results of this research can tell us about what is needed for optimal and efficient incorporation of these mind-body interventions into clinical practice. Finally, Dr. Iliia Karatsoreos, Professor of Psychological and Brain Sciences at the University of Massachusetts – Amherst, will discuss the role of circadian rhythms in optimizing physiological functions, mental and physical health. He will present data detailing the importance of circadian rhythms in orchestrating the response of neural tissues to immune threats and promoting optimal behavioral and physiological shifts that

synchronize with diurnal rhythms. Dr. Karatsoreos will also describe how variations and disruptions in timing leading to loss of synchronization among multiple body tissues contribute to disease.

TIME: 10:20-10:40

Jekyll & Hyde: Mind-Brain Interactions in Asthma

Melissa Rosenkranz, Ph.D.

*Assistant Professor of Psychiatry, University of Wisconsin-Madison
Distinguished Chair in Contemplative Neuroscience*

Recognition of the contribution of the mind to the development and maintenance of asthma symptoms dates back nearly 150 years. In modern epidemiological research, this is reflected in the increased prevalence of mood and anxiety disorders in asthma and the potentiation of airway inflammation during times of increased psychological stress. More recently, data has emerged to suggest that asthma may also compromise brain health and accelerate cognitive decline and dementia. Our group has used innovative approaches, including multiple brain imaging modalities in the context of allergen challenge, to investigate the neural and biomolecular mechanisms that underlie these pernicious interactions. While we have made progress on this front, we have also learned that the power of mind can be harnessed to improve disease control and airway inflammation in asthma. This process utilizes many of the same neural circuits that contribute to the deleterious relationships. In this presentation, I will describe the neural and immune pathways through which the mind and body interact in adults with asthma and those that predict beneficial outcomes following meditation training.

TIME: 10:40-11:00

Stress Pathways to Disease: Role of Inflammation

Nicolas Rohleder, Ph.D.

*Full Professor of Health Psychology, Friedrich-Alexander University, Erlangen-Nürnberg (FAU)
Director of the Biomarker Assay Service at the Chair of Health Psychology, at Friedrich-Alexander University Erlangen-Nürnberg (FAU)*

Psychosocial stress is an important precursor of disease and reduced quality of life in humans. The biological pathways between stress exposure and pathophysiological processes underlying disease have received substantial attention, primarily focusing on the role of the hypothalamus-pituitary-adrenal (HPA) axis and sympathetic nervous system (SNS). How activation of these stress systems translates into physiological disease, however, remains insufficiently understood. Recent research has therefore focused on systemic low-grade inflammation as a promising pathway, because (a) stress systems are known to affect the inflammatory system, (b) elevated inflammatory system activity often accompanies chronic psychosocial distress, and (c) inflammation plays a key role in the pathophysiology of diseases such as cardiovascular disease, type 2 diabetes, and cancer. Data will be presented addressing different aspects of stress system control of inflammatory mechanisms in the context of chronic and acute psychosocial stress.

TIME: 11:00-11:20

The Role of the Circadian Clock in Brain-Body Interactions: Focus on Neuroimmune Function.

Ilia N. Karatsoreos, Ph.D.

*Division Head, Behavioral Neuroscience, UMass.
Faculty, Department of Psychological and Brain Sciences, UMass.*

Biological rhythms are ubiquitous in nature, found in everything from plants to animals. Circadian (daily) rhythms ensure that different physiological and behavioral processes occur at appropriate times

with respect to the solar day, as well as in context with other complementary or opposing processes. This ensures that optimal function is realized from the cellular level to the tissue and whole organism levels. As such, this fundamental biological property supports health and wellbeing, but can also result in pathology or disease if it becomes disrupted.

Dr. Karatsoreos will present new data demonstrating that circadian rhythms serve as important conductors of multiple systems in the brain and periphery, and are critical for optimal mental and physical health. The main focus of his talk will be on the interactions between the innate immune system and the circadian clock. He will present data that show circadian rhythms help to “prime” neural tissues to better respond to immunological challenges, and that neurotropic viral infections have significantly different outcomes depending on time of day. He will also show how environmental desynchronization of the circadian clock can cause changes in inflammatory state, and lead to significant changes in the way an organism responds to immune challenge, at the physiological and behavioral levels. Together, this talk will demonstrate the importance for biological timing in the maintenance of health, the consequences of disrupted timing on disease, and the critical role that brain-body interaction play in maintaining this balance.

TIME: 11:20-11:40

Mindfulness Research and Its Applications in Health Interventions: A Global Mapping Study from 1946 to 2020

Bach Tran, Ph.D.

*Institute of Preventive Medicine and Public Health, Hanoi Medical University, Hanoi 100000, Vietnam
Adjunct Professor, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD 21205, USA.*

Introduction: Mindfulness-based interventions have gained popularity as effective means of improving mental health and well-being. This systematic review and global mapping provided a comprehensive overview of studies on mindfulness and its applications to health intervention and promotion from 1946 to 2022.

Objective: This study aims to analyze publications indexed in the Web of Science database until December 31st, 2022, related to mindfulness, meditation, and breathing exercise (MMBE) to provide an overview of the current state of research on MMBE.

Methods: A bibliometric analysis and text mining was conducted using search terms related to mindfulness, meditation, and breathing exercise (MMBE) to extract relevant publications from the Web of Science, PubMed, Scopus, and PsycINFO. An exploratory factor analysis was conducted to identify research domains emerging from abstract contents. The Jaccard similarity index was utilized to identify the most frequently co-occurring terms. Latent Dirichlet Allocation was used for classifying papers into corresponding topics.

Results: A total of 32,405 publications related to MMBE research, including 13,689 mindfulness-based interventions, were analyzed. The number of publications on MMBE has gradually increased since the first two articles were published in 1946, with the highest number of publications in 2022. The papers in 2013 received the highest number of downloads in the last five years, while papers in 2003 had the highest average citation rate. The research landscapes in the MMBE are rooted in trans-disciplines, with interventions extending beyond mind- and body- therapy into broader contexts of community-based and place-based health promotion.

Five research topics accounting for over two-thirds of total papers include: 1) Mindfulness-based cognitive therapy in reducing anxiety and depression in patients, 2) Mindfulness meditation's impact on spiritual well-being, 3) Effects of mindfulness meditation on emotional reactivity, 4) Mind-body interventions for cancer patients, and 5) The effects of mindfulness-based interventions on quality of life and well-being during COVID-19.

As for interventions, mindfulness-based design involved the following approaches: psychiatry and clinical psychology, psychology and applied, rehabilitation oncology, multidisciplinary sciences on geriatrics related to substance abuse, psychology developmental and education research, clinical neurology and neurosciences, environmental sciences with public and occupation, and health care sciences and service related to medical informatics.

Conclusion: The study shows the growing interest in MMBE research and interventions, with a diverse range of research topics and interventions. The interventions involved interdisciplinary approaches, highlighting the need for theory-informed design of therapies and interventions, and supporting policies for health promotion. Further research is required to evaluate the effectiveness of MMBE in specific health conditions.

PK2. PLENARY KEYNOTE SPEECH

TIME 1330-1420, Sat, Oct. 28 2023

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Moderator: Keith Kelley, Ph.D.

Professor Emeritus of Immunophysiology University of Illinois, USA

Editor-in-Chief Emeritus Brain, Behavior, and Immunity

Mood-Induced Metabolic Reprogram in Cancer Development

Qiang Liu, M.D., Ph.D.

Professor of Oncology, State Key Laboratory of Oncology, Sun Yat-sen University, China.

Summary

Chronic psychological stress and sleep deficiency are associated with poor prognosis in cancer patients. These risk factors induce negative physiological effects including anxiety, depression and circadian disruption that further contribute to tumor growth and cancer stemness. However, the mechanisms by which chronic stress and sleep deficiency promote cancer stemness remain elusive. Here, we find that chronic stress rewires glycolysis to facilitate stem-like traits in breast cancer. Moreover, targeting lactate dehydrogenase A with vitamin C significantly reverses chronic stress induced breast cancer progression and stemness. Meanwhile, sleep dysregulation reshapes fatty acid oxidation (FAO) rhythm to promote tumor growth and stem-like properties. Furthermore, rhythmic supplementation of a sleep-related hormone restores FAO rhythm to ameliorate lung cancer development. In summary, our findings reveal that chronic stress and sleep deficiency reprogram metabolism to accelerate cancer development and provide metabolism intervening and chronotherapeutic strategies for cancer patients suffering from chronic stress and sleep deficiency.

S12. SELECTED ORAL PRESENTATION SESSION

TIME 14:50-16:00, Sat, Oct. 28 2023

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Moderator: Jane Pei-Chen Chang, M.D., Ph.D.

Assistant Professor, College of Medicine, China Medical University, Taichung, Taiwan

Chief, Child Psychiatry Division, Department of Psychiatry, China Medical University Hospital, Taichung, Taiwan

Deputy Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

President, Taiwanese Society for Nutritional Psychiatry Research

Time: 14:50 – 15:10

Total Oxidant Capacity and Leukocyte Telomere Length in Schizophrenia: A Case-Control Study.

Goh Xue Xin, B.Sc.

Ph.D. Student, Universiti Tunku Abdul Rahman, Kajang, Malaysia

Abstract

Mortality rate of patients with schizophrenia is four times higher than the general population. Schizophrenia is always linked with accelerated aging reflected by shorter biological age marker or telomere length. Telomere shortening may be caused by oxidative stress as the 5' site of 5'-GGG-3' of telomeres is sensitive to oxidative stress leading to site-specific DNA damage. To the best of knowledge, there is no study relating telomere length together with oxidative stress in the Malaysian population with schizophrenia yet. Hence, the present study aimed to compare total oxidant capacity (TOC) and leukocyte telomere length (LTL) between Malaysian patients with schizophrenia and healthy controls; and to identify the relationship between age and TOC with LTL in schizophrenia.

A total of 220 subjects (110 patients with schizophrenia and 110 healthy controls) were recruited in this study. Blood was collected and processed into serum and buffy coat. Serum was used to measure TOC using an assay kit. DNA extracted from the buffy coat was used to measure LTL using real-time polymerase chain reaction (qPCR). Non-parametric test was conducted for comparison of LTL and TOC between patients and controls. Linear regression was conducted to investigate the relationship between age and TOC with LTL. Kaplan-meier method was used for time-to-event analysis of LTL based on age of diagnosis and duration of illness.

LTL was significantly shortened in patients with schizophrenia compared to healthy controls ($p=0.007$) whereas no significant difference in TOC was observed between patients and controls ($p=0.057$). As LTL is a biological age marker, linear regression was conducted to determine the effect of age on LTL in patients with schizophrenia. However, age was not significantly associated with the shortening of LTL ($p=0.742$). TOC also did not significantly affect LTL in patients with schizophrenia ($p=0.340$). No significant difference in age of diagnosis (log rank $p=0.687$) and duration of illness (log rank $p=0.910$) was found between LTL <0.51 and ≥ 0.51 .

Significantly shortening of LTL in the present study fits the higher mortality rate in patients with schizophrenia compared to the general population in Malaysia. Recent meta-analysis also reported significantly shorter LTL in patients with schizophrenia and related disorders compared to healthy controls. Its subgroup analysis also found no significant effect of age or illness duration on LTL, similar to the present findings. In the present study, there is no significant relationship between age, TOC and LTL, respectively, suggesting that LTL shortening may be associated with schizophrenia.

In conclusion, shorter LTL in Malaysian patients with schizophrenia compared to healthy controls supported the hypothesis of accelerated cellular aging in this population. Diagnosis of schizophrenia,

more than age and TOC, is the most important reason in LTL shortening. To further understand the role of LTL in the pathophysiology of schizophrenia, larger sample size of patients with schizophrenia should be targeted with baseline LTL and repeated LTL measurements in longitudinal studies. Other variables such as inflammation, genetic factors, lifestyle factors should be measured as well to identify the potential cause of LTL shortening in schizophrenia.

Time: 15:10 – 15:30

A Pilot Study of the Efficacy of a Transdiagnostic Single-Session Circus-Based Mindfulness Programme in Rural North Borneo.

Nicholas Pang, MBBS, Mmed

Associate Professor in Psychiatry, Universiti Malaysia Sabah, Malaysia.

Abstract

Background: Child and adolescent mental health is a pertinent issue that would benefit from creative that would benefit from creative and gamified new approaches. Circus skills and mindfulness methods are transdiagnostic interventions that have additive effects in synergy.

Method: This article focuses on the pilot testing and preliminary efficacy analysis of a novel circus-based mindfulness intervention. 50 participants were randomized into intervention and control groups. Intervention groups received a combined circus and mindfulness intervention; control groups only received a mindfulness intervention of comparable duration. Multiple analysis MANOVA was employed to identify differences between intervention and control groups on measures of depression, anxiety, stress, mindfulness, psychological flexibility, and fear of Covid-19.

Result: Upon Wilcoxon signed rank tests, there were significant differences for the pre- and post-intervention scores for fear of Covid-19 and psychological flexibility. There was no significant difference in the intervention group for depression, anxiety, stress and mindfulness. Upon multiple analysis MANOVA, there was a significant difference between the scores for fear of Covid-19 between the control and the intervention group. There was no significant difference between the control and intervention group for depression, anxiety, stress, mindfulness and psychological flexibility.

Conclusion: it is observed that psychological flexibility and fear of Covid-19 are two construct that have the potential to be influenced by interventions combining circus and mindfulness interventions. Further larger-scale research is essential in replicating these pilot findings.

Time: 15:30 – 15:50

Exhaustive in Silico Design and Screening of Novel Antipsychotic Compounds with Improved Pharmacodynamics and Blood-Brain Barrier Permeation Properties

Sergey Shityakov, M.D., Ph.D., D.Sc.

Full Professor of Chemoinformatics and Rational Drug Design, ITMO University, Lomonosova Street 9, Saint Petersburg, 191002, Russian Federation.

Infochemistry Scientific Center, ITMO University, Lomonosova Street 9, Saint Petersburg, 191002, Russian Federation.

Abstract

Antipsychotic drugs, also known as neuroleptics, are commonly used to treat psychosis associated with schizophrenia and bipolar disorder. The effectiveness of these drugs largely depends on their ability to permeate the blood-brain barrier (BBB) and interact with drug receptors (pharmacokinetics and pharmacodynamics). In this study, we developed an in silico pipeline to design 260 novel compounds as leads, using standard drug scaffolds with improved PK/PD properties. The top three candidates were then evaluated in molecular docking to interact with serotonin and dopamine receptors.

We identified a haloperidol (HAL) derivative, 1-(4-fluorophenyl)-4-(4-hydroxy-4-{4-[(2-phenyl-1,3-thiazol-4-yl)methyl]phenyl}piperidin-1-yl)butan-1-one, as a “magic shotgun” lead compound with better affinity for the 5-HT_{2A}, 5-HT_{1D}, D₂, D₃, and 5-HT_{1B} receptors than the control molecule. Furthermore, this hit substance was predicted to have similar BBB permeation properties and lower toxicological profiles than HAL. Overall, this rational drug design platform for novel antipsychotic drugs, based on BBB permeation and receptor binding, may be an invaluable tool for medicinal chemists and translational pharmacologists.

S13. ISSFAL (International Society for the Study of Fatty Acids and Lipids) SESSION

TIME 16:00-17:30, Sat, Oct. 28 2023

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Chair: Richard Bazinet, Ph.D.

Professor and Canada Research Chair in Brain Lipid Metabolism

Acting Chair and Professor Department of Nutritional Sciences at the University of Toronto, Canada

Immediate Past President of the International Society for the Study of Fatty Acids and Lipids (ISSFAL)

Summary

This session will provide updates with regards to the role of dietary fatty acids and their metabolism in the brain and central nervous system. While not a chronobiology session, the session will highlight the role of diet and metabolism across the lifespan including development and ageing in humans and preclinical models.

TIME: 16:00-16:20

A New Method Reveals that Hepatic Lipogenesis is Upregulated to Supply Palmitic Acid to the Developing Brain of Mice Fed Low Palmitic Acid from Birth: Implications for the Use of Palmitic Acid in Infant Formula.

Richard Bazinet, Ph.D.

Professor and Canada Research Chair in Brain Lipid Metabolism

Acting Chair and Professor Department of Nutritional Sciences at the University of Toronto, Canada

Immediate Past President of the International Society for the Study of Fatty Acids and Lipids (ISSFAL)

Abstract

Background: Palmitic acid (PAM) can be provided in the diet or synthesized via de novo lipogenesis DNL (DNL) primarily from glucose. Preclinical work on the origin of brain PAM during development is scarce and contrasts results on the origin of PAM in the adult brain. Here, we utilize naturally occurring carbon isotope ratios ($^{13}\text{C}/^{12}\text{C}$; $\delta^{13}\text{C}$) to uncover the origin of brain PAM during development, as well as RNA sequencing to identify pathways involved in maintaining brain PAM.

Methods: Dams were equilibrated onto diets low (<2%), medium (47%) or high (>95%) in PAM prior to breeding. Dietary PAM was depleted in $\delta^{13}\text{C}$, while dietary sugars were enriched. Offspring stayed on the respective dam diet and were euthanized at postnatal day 0, 10, 21, and day 35. Pup liver and brain fatty acids were quantified, after which, tissue $\delta^{13}\text{C}$ -PAM was measured by compound specific isotope analysis. Day 35 tissue RNA was sequenced on a NovaSeq S4 Flowcell.

Results: Although PAM levels in the liver reflected levels of dietary PAM, PAM was maintained in total and individual brain phospholipid fractions across diet groups at all timepoints. Tissue $\delta^{13}\text{C}$ -PAM was enriched overall and augmented in mice fed low PAM, compared to medium and high PAM suggesting that DNL from dietary sugars maintained the majority of the brain PAM pool. Furthermore, DNL pathways were upregulated in mice fed low compared to high PAM in the liver, but not the brain at day 35.

Conclusions: DNL from dietary sugars maintains the majority of brain PAM during development and is augmented in mice fed low PAM from birth. Importantly, hepatic DNL from dietary sugars determines PAM availability to the developing brain when low in the diet – a compensatory mechanism identified to maintain total brain PAM pools compared to periphery which ultimately suggests an importance of brain PAM regulation during development.

TIME: 16:20-16:40

Long-Term Support of Neurocognitive Development Requires Balanced Fatty Acid Intake at Critical Periods: Two Recent Randomized Controlled Trials.

Tom Brenna, Ph.D.

Professor of Pediatrics, Dell Medical School, USA

President of the International Society for the Study of Fatty Acids and Lipids (ISSFAL) (2015-2018)

Abstract:

Fatty acids, particularly omega-3 fatty acids, are crucial structural components of the brain and play a vital role in its development. About 25% of brain fat is the highly unsaturated fatty acids (HUFA) docosahexaenoic acid (DHA) and arachidonic acids, both key to neuron membrane and structure. Because fatty acids share common underlying biology, an imbalance in dietary fats typically as an excess of omega-6 linoleic acid, antagonizes omega-3 DHA leading to lower tissue levels. Balanced fatty acid intake supports the development of learning and problem-solving, and importantly, development of emotional resiliency such as impulse control, low levels of depression, aggression, and anxiety.

Two studies reported in 2022 investigated long term neurocognitive development in high-risk infants and children. Both studies provided nutritional support to improve survival, completed treatments, and after an extended period post-intervention found that neurocognitive development was improved in treated participants compared to placebo controls. Here we discuss the two studies and their implications for neurocognitive development and later mental function.

Severe Acute Malnutrition and Ready-to-Use Therapeutic Foods

Children between 6 months and 5 years of age diagnosed with severe acute malnutrition (SAM) are in danger of imminent death, and those who survive have neurological deficits. Ready-to-Use Therapeutic Food (RUTF) developed in the 2000s increased survival rates from 50% to >90%. RUTF consisting of peanut butter, non-fat dry milk, vitamin/mineral mix, sugar and oil are administered as the sole source of food for 4-12 weeks. Early formulations had very high omega-6 linoleic acid (LA), minimal omega-3 alpha-linolenic acid (ALA), and no DHA, leading to dramatic drops in circulating DHA. We reformulated RUTF to have balanced LA and ALA, and DHA. Conducted in Malawi, SAM-afflicted children of mean age 1 year recovered normally.

Six months post-recovery, the children who had received the reformulated RUTF performed better on the Malawi Developmental Assessment tool than controls, with higher scores driven by gross motor and social skills scores, with fine motor and language trending similarly (Stephenson, Brenna, Manary, et al., AJCN 2022).

Prematurity and DHA

Preterm infants born before 29 weeks gestation are deprived of placental DHA transfer when their brain growth is accelerating and they would normally be acquiring most of their prenatal DHA. Australian infants of normally nourished mothers were randomized to 60 mg DHA per day until 36 weeks post-gestational age. The primary outcome was the rate of lung dysfunction, a severe condition in preterm infants.

At five years of age, children were tested for full-scale IQ. Those who had DHA as infants scores 3.5 IQ points higher than controls, with normalized scores of 95.4 vs 91.9 (global mean =100, SD = 15). Verbal comprehension, a secondary outcome, was also higher (Gould, Makrides, et al., NEJM 2022).

Both sets of children were treated at a critical period for a life-threatening condition in studies that required nearly a decade of research. The support the thesis that neurocognitive development is sensitive to nutrition in the long term – where time matters – and may be very difficult to correct in later life.

TIME: 16:40-17:00

Arginine Methylation in Vascular Dementia

Kevin Lin, Ph.D.

Vice Chair for Research, Department of Neurology, Louisiana State University, Health Science Center, Shreveport, LA, USA

Abstract

Background: Alzheimer's disease (AD) is a devastating pathology, which contributes massively to the long-term care burden in the United States. Women are more likely to develop dementia than men and tend to have a more rapid disease progression. While AD-related dementia is associated with tau and amyloid beta proteinopathies, derangements in cerebral blood flow (CBF) have also been observed in humans and mice. Additionally, in the aged AD brain cerebral vascular dysfunction has been shown to augment blood brain barrier (BBB) dysfunction. These changes may be due to the loss of junctional proteins and a subsequent ionic imbalance which contribute to neurovascular uncoupling and cognitive decline. Soluble levels of NOTCH1 is lower in human AD patients may be a factor in the BBB decline seen in AD. Reduced NOTCH1 is linked to blood brain barrier permeability (more leakage) resulting in brain damage. The intersection of the neuronal and vascular NOTCH1 functions make it a promising and target in AD and cerebrovascular pathology. PRMT4 has been shown to be a specific methylator of the intracellular domain of NOTCH1, methylation of this domain leads to its degradation. As stated previously, lower NOTCH1 is associated with BBB compromise. PRMT4 may be an upstream regulator of the NOTCH1 signaling cascade, and this axis can be manipulated through both pharmacological and AAV approaches to improve BBB stability in AD.

Aim: The aims of this study are to 1) determine how protein arginine methyltransferase (PRMT) enzyme PRMT4 affects NOTCH1 expression in the context of AD cerebrovascular pathology, 2) to determine how regulation of PRMT4 may rescue CBF in AD to improve functional outcomes, and 3) to investigate modulators of PRMT4 (i.e. 70% EPA) to decrease PRMT4 levels.

Results/Conclusion: Our preliminary data suggest that 3xTg female mice have 1) higher levels of PRMT4 protein and decreased NOTCH1 intracellular domain expression in the hippocampus, 2) enhanced type-1 PRMT methylation of NOTCH1, 3) reduced junctional proteins in the brain, 4) compromised neurovascular coupling, and 5) poor functional outcomes.

WK11 and WK12. 睡眠與營養工作坊 WORKSHOP OF SLEEP AND NUTRITION

TIME 13:30-16:10, Sat, Oct. 28 2023

VENUE Classroom 203, 2F, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan

召集人:張倍禎主任

中國醫藥大學附設醫院兒童青少年精神科主任

中國醫藥大學醫學系助理教授

英國倫敦大學國王學院訪問學者

中國醫藥大學健康中心特約醫師

臺灣營養精神醫學研究學會理事長

召集人:賀菡懿營養師

台灣營養精神醫學研究學會理事

工作坊介紹

睡眠障礙是台灣常見身心健康問題，睡眠障礙有分許多類型，包括難以入睡、睡著後多夢、維持睡眠困難、過早醒來，背後可能隱藏不同的原因，包括HPA-axis dysfunction、自律神經失調、腦神經疾病、飲食行為問題、荷爾蒙變化等等，而除了正規藥物治療外，如何從生活型態評估影響睡眠品質的根本原因，提供非藥物的營養介入方法，對於兒童青少年族群、或是需要減藥的慢病族群、以及輕症族群，提供安全有效的營養建議對臨床應用來說非常重要。

TIME: 13:30-13:50

睡眠與青少年, 營養與生活型態的影響

林健禾

奇美醫院精神科主治醫師

內容摘要

內容為青少年睡眠的重要性，以及營養和生活方式對睡眠品質的影響。首先，介紹了青少年睡眠對健康的重要性，並強調青少年的營養和生活方式對睡眠的影響。其次，探討青少年的營養需求和健康飲食的建議，指出不良飲食習慣可能對睡眠品質造成負面影響。再者，闡述了運動與睡眠品質的關係，以及電子設備使用對睡眠品質的影響，強調睡眠規律對青少年的重要性。接著介紹常見的睡眠障礙以及睡眠障礙對青少年的影響，並提供預防和處理睡眠障礙的建議。最後總結營養和生活方式對睡眠的重要性，提供建議和措施以改善睡眠品質，並指出未來研究的方向。

TIME: 13:50-14:10

飲食型態與睡眠之雙向關係 The Bidirectional Relationship Between Diet and Sleep

顏佐樺

聯安預防醫學機構 聯欣診所 院長

聯安預防醫學機構 聯青診所 副院長

大林慈濟醫院 家庭醫學部 主治醫師

內容摘要

已有不少證據證實睡眠質量會影響飲食和熱量攝取，流行病學調查則發現飲食型態對睡眠之影響，而這雙向關係有潛力帶來預防醫學與公共衛生重大影響。睡眠時間短、質量差與飲食習慣

皆被認為是心血管代謝疾病的危險因子。若能透過精準有效地方式改善飲食，進而促進睡眠健康，不良飲食睡眠的惡性循環能轉向正向循環，達到降低慢性疾病的風險。

TIME: 14:10-14:30

睡眠相關生化調控機轉與飲食介入

賀蕙懿

台灣營養精神醫學研究學會理事

內容摘要

睡眠障礙成為國人常見的健康問題，一旦睡眠品質變差，會接著影響白天的精神體能，包括工作的專注力、情緒穩定，飲食組成、運動能力、以及衝動飲食問題，而白天的飲食內容，夜間運動和生活習慣，也會大幅影響睡眠，形成惡性循環後，會引發身體慢性發炎問題，被認為與肥胖、心血管疾病、肝臟解毒和情緒問題都有關聯。從調控睡眠相關的神經傳導物生化路徑可以了解營養對於大腦神經功能的重要性，以及設計對應的飲食計畫、運動類型與生活策略，對提升整體睡眠品質來說至關重要。

TIME: 14:50-15:10

除了安眠藥之外我們還能做些什麼？

陳芳雯

樂奕診所院長

內容摘要

You are what you eat，我們吃進去的食物及營養，不僅僅是會影響到我們的身形和容貌，但和我們的情緒和睡眠也有高度的相關性。

台灣常見精神疾病的盛行率從 1990 年的 11.5% 上升至 2010 年的 23.8%，幾乎每 4 人就有 1 人不快樂。常見精神疾病盛行率的增加，病人本身及其家人為此所付出的代價是難以估算的，以及也是社會成本的巨大損失。

每個人都是獨特的，我們可以如何使用正確的功能醫學檢測，找出每個人獨特的生理特性，和病人一起找到生病的原因，使用客製化營養來治療情緒睡眠問題，是我們醫療人員可以去思考及精進之處。

TIME: 15:10-15:30

自律神經失調與睡眠營養素

洪佳琪

瀚仕診所營養師

內容摘要

睡眠佔了一天三分之一的時間，對於健康和幸福感非常重要。有許多因素影響睡眠，其中，營養是關鍵，包括用餐時間、攝取的食物以及特定的營養素等，都對改善睡眠品質有益。以營養素為例，GABA 是一種神經傳導物質，能降低交感神經活性、減少大腦和中樞神經系統中神經元的活動，有助於緩解壓力和焦慮並幫助睡眠。不同的營養素和飲食調整對睡眠的影響及作用機轉各不相同，我們可以透過調整生活方式和飲食及補充相關的營養素來調節睡眠品質。

TIME: 15:30-15:50

神經內科常見睡眠障礙營養介入

林邵臻

品心診所院長

內容摘要

慢性壓力是現代人常見的問題,在臨床上常遇到慢性壓力卻用睡不著或是長期失眠為表現的案例,面對這樣的個案,安眠藥物往往效果不佳,且反而影響個案的白天工作,仔細審視腎上腺軸線,腸腦相關連結,從飲食,藥物,生活型態,荷爾蒙調整著手,更能解決病患慢性壓力所導致的睡眠問題,甚至可以在不需要安眠藥物的情況下,維持良好的睡眠品質。

October 29, 2023

S21. 5-MIN BLITZ

TIME	09:00-09:50
VENUE	Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

TIME: 09:00-09:05

5PB101. [Improvement on Alzheimer's Disease and \$\beta\$ -Amyloid-Induced Toxicity by Black Raspberry.](#)

Yohannes Tandoro, Indonesia

TIME: 09:06-09:11

5PB102. [The Psychoneuroimmunological Model of Childhood Trauma on Loneliness and Depression in Older Adults.](#)

Rachel R. Jin, Hong Kong

TIME: 09:12-09:17

5PB103. [Pharmacologic Interventions for the Prevention of Postoperative Delirium in Elderly Patients: A Network Meta-Analysis of Randomized Controlled Trials.](#)

Ting-Hui Liu, Taiwan

TIME: 09:18-09:23

5PB104. [A 12-week Randomized Placebo-Controlled Trial of Adjuvant Omega-3 Polyunsaturated Fatty Acids in the Treatment of Major Depressive Episode of Bipolar Disorder.](#)

Halliru Zailani, Nigeria

TIME: 09:24-09:29

5PB105. [Plasma Cell-Free RNA Profiling of Vietnamese Alzheimer's Patients Reveals a Linkage with Chronic Inflammation and Apoptosis: A Pilot Study.](#)

Anh Phuc Hoang Le, Vietnam

TIME: 09:30-09:35

5PB106. [EEG-Based Automated Mental Disorder Detection Using Artificial Intelligence.](#)

★**Lua Ngo, Vietnam**

TIME: 09:36-09:41

5PB107. [Sleep Disorders in the Transitional Age Population During the COVID Pandemic.](#)

★**Akhil S. Pola, USA**

TIME: 09:42-09:47

5PB003 [Life Expectancy, Estimated Loss-of-life Expectancy, and Medical Costs of Persons with Bipolar Disorder \(BD\) in Taiwan: A Nationwide Population-Based Study.](#)

Ikkal Andrian Malau, Indonesia

TIME: 09:48-09:53

5PB004. [Estimation of Lifetime Risks and Life Expectancy of Panic Disorder: A Nationwide Cohort Study in Taiwan.](#)

Kai-Jie Yang, Taiwan

★: Overseas Travel Awardees

S22. NUTRITIONAL AND BEHAVIORAL INTERVENTIONS FOR MENTAL HEALTH OF OLDER INDIVIDUALS

TIME 10:20-12:10

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Chair: David Mischoulon, M.D., Ph.D.

Director, Depression Clinical and Research Program, Massachusetts General Hospital, Boston, MA, USA

Joyce R Tedlow Professor of Psychiatry, Harvard Medical School, Boston, MA, USA

Co-Chair: Olivia I. Okereke, M.D, S.M.

Associate Professor of Psychiatry, Harvard Medical School, Boston, MA, USA

Director of Geriatric Psychiatry, Massachusetts General Hospital, Boston, MA, USA

Summary

The session will examine new lines of research focusing on the role of nutrition and behavioral interventions in the treatment and prevention of depression, with a focus on older populations. Drs. Olivia Okereke and David Mischoulon will co-chair the session. Dr. Mischoulon will give a brief overview of nutritional and behavioral interventions for older adults, and present about a new study of omega-3 in treatment resistant depression, currently in progress. Dr. Okereke will present an overview of her key findings in the VITAL-DEP study, which examined the role of omega-3 and vitamin D as preventive agents for depression in older individuals. Dr. Chirag Vijay will present on the mechanistic roles of biomarkers in the VITAL-DEP study. Ms. Vivian Anable Eme will present on the design of a novel behavioral intervention trial using homecare worker training for reducing behavioral and psychological symptoms and improving quality of life among patient and family member dyads facing cognitive impairment and dementia.

TIME: 10:20-10:40

Nutritional And Behavioral Interventions for Depression in Older Individuals: Overview and Description of a New Study of Omega-3 Fatty Acids

David Mischoulon, M.D., Ph.D.

Director, Depression Clinical and Research Program, Massachusetts General Hospital, Boston, MA, USA

Joyce R Tedlow Professor of Psychiatry, Harvard Medical School, Boston, MA, USA

Abstract

Background: Management of depression in older populations remains a challenge. Natural remedies are promising treatments for mood disorders in older individuals, given their safety and tolerability. Likewise, psychotherapeutic interventions for older individuals and those who care for them are also viable approaches for preventing depression.

Method: We describe a new study in progress, examining the role of specialized pro-resolving lipid mediators in treatment resistant depression. This is a 12-week, double-blind, placebo-controlled, trial of 4 g/day of EPA-enriched omega-3 as adjunctive treatment for patients 18 years and older with major depressive disorder (MDD) and inadequate response to ongoing treatment with standard antidepressants, BMI > 25 kg/m² and hs-CRP ≥ 3 mg/L.

Results: We hypothesize that augmentation with 4 g/day of EPA-enriched omega-3 will: 1) Significantly increase 18-HEPE levels compared to placebo; 2) Have significantly more subjects with ≥ 50% sustained (at both week 8 and 12) decrease in MADRS scores than placebo; 3) Demonstrate that sustained responders (≥ 50% MADRS score decrease at both week 8 and 12) to 4 g/day of EPA

have significantly greater increases in 18-HEPE levels than a) unsustained/non-responders to EPA-enriched omega-3 as well as b) placebo-supplemented sustained responders.

Conclusion: Omega-3 fatty acids represent an exciting and evolving area of research in depression with potential application in older individuals. This study will test whether omega-3 fatty acids added to ineffective antidepressants increase anti-inflammatory compounds and if the increase in these compounds is associated with antidepressant response.

TIME: 10:40-11:00

Vitamin D and Omega-3 Trial: Depression Endpoint Prevention (VITAL-DEP) : Study Design and Key Findings

Olivia I. Okereke, M.D., S.M.

Associate Professor of Psychiatry, Harvard Medical School, Boston, MA, USA

Director of Geriatric Psychiatry, Massachusetts General Hospital, Boston, MA, USA

Abstract

We present the design and key findings from VITAL-DEP (VITamin D and OmegA-3 Trial-Depression Endpoint Prevention) – an ancillary study to the VITAL trial and first-of-its-kind randomized controlled trial (RCT) of vitamin D3 and omega-3 fatty acids (omega-3s) for universal, selective and indicated prevention of late-life depression (LLD).

Method: Among 25,871 US adults aged 50+ years randomized in 2x2 factorial fashion to vitamin D3 (2000 IU/d) and omega-3s (1 g/d) or placebo in VITAL and followed up to 7 years, n=16,657 were eligible for incident depression and n=1,696 were eligible for recurrent depression. Selective and indicated prevention were tested in an in-clinic subset of n=1,054 with deep-phenotyping, including in-person psychiatric diagnostic interviews, neuropsychological testing, detailed risk factor and behavioral measures, and blood collections over 2 years. Pre-specified outcomes were: 1) risk of depression or clinically relevant depressive symptoms (incident + recurrent cases); 2) mean difference in mood scores (Patient Health Questionnaire).

Results: Among 18,353 participants (mean age=67 years) with median=5.3 years of follow-up, there was no benefit from either vitamin D3 or omega-3s for universal prevention of LLD. In the in-clinic subset (including n=720 at risk for incident major depression), neither agent significantly reduced depression risk nor affected mood scores over 2 years. Analyses in pre-specified sub-groups (e.g., by biochemical nutrient status) will be discussed.

Conclusion: There were no benefits of vitamin D3 2000 IU/d or omega-3s 1 g/d for universal, selective, or indicated prevention of LLD. Analyses in the pre-specified sub-group and biomarker aims will further inform this research agenda.

TIME: 11:00-11:20

The Mechanistic Roles of Biomarkers in a Study of Vitamin D3 and Omega-3 Supplements for Late-Life Depression Prevention

Chirag M. Vyas, MBBS, MPH

Instructor in Psychiatry, Harvard Medical School, USA

Instructor in Investigation, Massachusetts General Hospital, USA

Abstract

Background: Our group recently completed a trial of vitamin D3 and marine omega-3 fatty acids (omega-3s) for late-life depression (LLD) prevention. However, biomarker studies are critical to determine how and for whom such agents can reduce LLD risk. We present key findings from focused biomarker studies of potential mediators and moderators in the VITAL-DEP (VITamin D and OmegA-3 Trial-Depression Endpoint Prevention) study.

Methods: VITAL-DEP is a late-life depression prevention ancillary study to VITAL, a 2x2 factorial trial testing vitamin D3 (2000 IU/d) and/or omega-3s (1 g/d) for cardiovascular disease and cancer prevention. VITAL-DEP integrated high-quality, next-generation, serial assays of biomarkers, such as serum brain-derived neurotrophic factor (BDNF), plasma -omics (mass spectrometry-based untargeted metabolomics), and newer blood-based biochemical markers of vitamin D3 (bioavailable vitamin D, vitamin D binding protein, free 25(OH)D).

Results: In one recently completed study, we found that daily supplementation with vitamin D3 or omega-3s did not alter serum BDNF levels over 2 years, and serum BDNF did not appear to modify or mediate the treatment effects of the study agents on LLD risk. Detailed results of other biomarker studies are forthcoming.

Conclusion: Studies of novel biomarker and -omics, which have been integrated into an experimental framework, will enrich our understanding of the role of vitamin D3 and omega-3 supplements in LLD prevention, relevant biological targets involved, and potential target populations/sub-groups that may benefit.

TIME: 11:20-11:40

Design and Implementation of a Homecare Worker Training Program to Improve Behavioral Symptoms and Quality of Life among Patient and Family Member Dyads Facing Cognitive Impairment and Dementia.

Vivian Anable Eme, BA

Clinical Research Coordinator, Massachusetts General Hospital, USA

Abstract

Background: There is an increasing demand for care by home health aides (HHAs) to support older adults as they age-in-place. Therefore, it is critical to ensure the skill levels of HHAs meet the unique behavioral challenges of older adults, especially those with cognitive impairment and dementia.

Method: The Care for America's Aging (CfAA) study will test the benefits of providing enhanced care (EC) training to HHAs. EC consists of a 10% increase in educational content on top of the base 100-hour training that qualifies for state certification. CfAA will compare outcomes between a group of 30 older adults and their familial caregivers (i.e., 30 dyads) randomized to services from EC-trained HHAs and a group of 30 dyads randomized to services from regular care (RC)-trained HHAs.

Results: The study involves two co-primary outcomes: 1) behavioral symptoms in patients; 2) quality of life for patients and familial caregivers. Secondary outcomes include caregiver stress in familial caregivers; mood and anxiety symptoms in patients and familial caregivers; serious medical events in patients. Dyads will be assessed at baseline and every 2 weeks over a 6-month follow-up period. We anticipate an improvement across all outcomes in dyads receiving care from EC-trained HHAs compared to dyads receiving care from RC-trained HHAs.

Conclusion: This pilot study will provide feasibility and preliminary efficacy data for a larger embedded pragmatic trial. Our long-term goal is to develop and implement CfAA as a scalable, replicable national model to meet the growing healthcare needs of the US aging population.

S23. MASTERING THE CIRCADIAN RHYTHM FOR MIND-BODY WELLBEING: FROM TECHNOLOGY TO THERAPY

TIME 13:30-15:00

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Chair: Kuan-Pin Su, M.D., Ph.D.

Professor, College of Medicine, China Medical University (CMU), Taichung, Taiwan

Deputy Superintendent, An-Nan Hospital, China Medical University, Tainan, Taiwan

Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

Summary

Circadian rhythm disruption underlies the pathophysiology of psychiatric disorders, especially depression. Both pharmacological and non-pharmacological strategies affecting endogenous circadian rhythms have been developed with specificity to alter the circadian dysfunction. The current management strategy with antidepressants is far from being satisfactory in addressing this issue. In recent years, attempts at discovering new antidepressants focused on a melatonergic system which is known to be altered in depression have led to a potential option for treatment of depression. Indeed, the new is arriving. With the Information Communication Technology (ICT), brain scientists can now apply various wearable devices to collect real-time, continuous, objective and dynamic data and to compute the complexity of human emotion, cognition, behaviors, and circadian physiology with the advantage of artificial intelligence (AI) in a revolutionary way.

TIME: 13:30-13:50

Melatonin Regulates Circadian Clock Genes and Peripheral Inflammatory and Neuroplasticity Biomarkers in Depression and Anxiety.

Kuan-Pin Su, M.D., Ph.D.

Professor, College of Medicine, China Medical University (CMU), Taichung, Taiwan

Deputy Superintendent, An-Nan Hospital, China Medical University, Tainan, Taiwan

Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

Abstract

The circadian rhythm is composed of biological and behavioral cycles that are precisely regulated by light and darkness. Recent molecular discoveries have prompted extensive research on the role of the circadian rhythm in psychiatric disorders and their treatment approaches. Melatonin and its analogues (ramelteon, agomelatine, TIK-301, Neu-P11, and tasimelteon) have been found to resynchronize the circadian rhythm and alleviate symptoms of depression and anxiety. In a previous clinical study, ramelteon treatment restored phase-shifted melatonin markers and normalized the altered expression of circadian genes, as well as levels of inflammatory cytokines and neurotrophins in patients with insomnia comorbid with anxiety and depression. Meta-analytic reviews have revealed clinical effects of melatonergic agents in delirium prevention, cognitive function in Alzheimer's Dementia, and even irritable bowel syndrome. We also applied the animal model of depression and pain comorbidity and found that the microRNAs level of miR-200a-3p was associated with central sensitization, suggesting roles of reduced neurogenesis, inflammatory activation, disturbed circadian rhythm, lipid metabolism, and insulin secretion in the co-existence of pain and depression. This presentation highlights the significant progress made in understanding the role of circadian clock genes and melatonin-based chronobiologic intervention in the treatment of anxiety and depression.

TIME: 13:50-14:10

Sleep Technology : The Past, Current and the Future.

Rayleigh Ping-Ying Chiang, M.D., M.M.S.

Director, Sleep Technology Consortium (STC), Ministry of Science and Technology, Taiwan

President, International Sleep Science & Technology Association (ISSTA), Berlin Headquarter and Taiwan Chapter

Abstract

With the advancement of technology, the popularization of the Internet, the promotion of home sleep monitoring, wearable devices, precision medicine, artificial intelligence, big data, cloud computing,... etc., many advanced sleep centers, universities and research institutes are looking for the next generation of sleep technologies. As the editor-in-chief of the textbook "Introduction to Modern Sleep Technology" in the field of sleep technology, Dr. Rayleigh Ping-Ying Chiang shoulders the responsibility as the President of the International Sleep Science and Technology Association (ISSTA, www.isstasleep.org) Berlin headquarter and Taiwan Chapter, leading the development of international academia and industry on sleep technology. In this symposium, Dr. Rayleigh Ping-Ying Chiang will illustrate an overview of the background and reasons for the development of sleep technology, from the early use of smart bracelets and bio-signal monitoring devices, then to interventional products, and explore how the latest sleep and innovative medical technology are closely integrated in the post-epidemic era. Finally, this lecture will cover how Taiwan will develop the "Medical IoT and Health Blockchain" to take the lead in the world based on the topic of "sleep medical technology" in the future, facilitating the industry open up the global market and jointly create the "Health Blockchain" ecosystem

TIME: 14:10-14:30

Emergence Dynamics of the Circadian Clock Network

Jihwan Myung, Ph.D.

Associate Professor, Graduate Institute of Mind Brain and Consciousness, Taipei Medical University

Graduate Institute of Mind, Brain and Consciousness (GIMBC), Taipei Medical University, Taipei, Taiwan

Brain and Consciousness Research Centre (BCRC), TMU-Shuang Ho Hospital, New Taipei City, Taiwan

Abstract

The circadian clocks we find in our bodies are plural entities—they come in a network composed of several similar clocks. Synchronization of the clock network ensures robust timekeeping, as errors in individual clocks can be compensated for in the collective average. The synchronization can be a fundamental component of the clock design that exists from the birth of the circadian system in the brain, and the nature of synchronization can reveal the underlying network structure. Is the emergence of the circadian clock an abrupt event, like a first order phase transition, or does it demand a "drum roll" before the surge of emergence, much like a second order phase transition? Our embryonic tissue explant imaging provides some interesting insights into this question.

Efficacy of Non-Invasive Brain Stimulation for Treating Depression in Patients with Traumatic Brain Injury: A Meta-Analysis and Meta-Regression of Randomized Controlled Trials

Chun-Hung Chang, M.D., Ph.D.

Visiting Staff, Institute of Clinical Medical Science, China Medical University, Taichung, Taiwan

*Department of Psychiatry & Brain Disease Research Center, China Medical University Hospital, Taichung, Taiwan
An Nan Hospital, China Medical University, Tainan, Taiwan*

Abstract

Background: Non-invasive brain stimulation (NIBS), including repetitive transcranial magnetic stimulation (rTMS) and transcranial direct current stimulation (tDCS), has therapeutic potential for depression in patients with traumatic brain injury (TBI); however, studies have reported conflicting results. In this meta-analysis, we evaluated the efficacy of NIBS for treating depression in TBI.

Methods: We searched PubMed, Cochrane Systematic Reviews, and Cochrane Collaboration Central Register of Controlled Clinical Trials for randomized controlled trials (up to January 28, 2023) in which NIBS was used to depressive symptoms in TBI. Using a random-effects model, we pooled studies to evaluate the effects of NIBS. This study included patients diagnosed with TBI. Clinical improvement (from baseline to NIBS completion) scores were compared across trials in terms of the standardized mean difference (SMD) with 95% confidence interval (CI) values. Heterogeneity was evaluated using I² statistics and by visually assessing funnel plots.

Results: Finally, 10 trials (participants, 234; rTMS, eight trials, tDCS, two trials) were included in our analysis. NIBS exhibited significantly higher levels of efficacy in improving depressive symptoms than did sham treatment (SMD: 0.588; 95% CI: 0.264–0.912; $P < 0.001$) in TBI patients. A subgroup meta-analysis revealed that rTMS exhibited significant efficacy in reducing depression scores than did sham treatment (SMD: 0.707; 95% CI: 0.306–1.108; $P = 0.001$), while the results were nonsignificant for tDCS (SMD: 0.271; 95% CI: –0.230 to 0.771; $P = 0.289$). Meta-regression revealed that therapeutic effects were not significant correlated with number of sessions, treatment intensity and total dose. Short-term and long-term effects after NIBS treatment were evaluated, showing significant improvements immediately after treatment but nonsignificant effects one and two months after treatment. The adverse event rate of NIBS treatment was low, and no serious adverse effects like seizures were reported.

Conclusions: In conclusion, this meta-analysis supports rTMS as an effective short-term treatment for depression in TBI patients, while tDCS results were inconclusive. Long-term effects were not significant, highlighting the need for further research. NIBS demonstrated a low adverse event rate, suggesting its relative safety as a treatment option.

PK3. PLENARY KEYNOTE SPEECH

TIME 1530-1620, Sun, Oct. 29 2023

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Moderator: Jane Pei-Chen Chang, M.D., Ph.D.

Assistant Professor, College of Medicine, China Medical University, Taichung, Taiwan

Chief, Child Psychiatry Division, Department of Psychiatry, China Medical University Hospital, Taichung, Taiwan

Deputy Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

President, Taiwanese Society for Nutritional Psychiatry Research

Visiting Researcher, Department of Psychological Medicine, Institute of Psychiatry, Psychology and Neuroscience (IoPPN), King's College London, UK

Recent Advances in Nutritional Psychiatry: Novel Mechanisms, Interventions, and Guidelines

Wolf Marx, Ph.D.

Alfred Deakin Postdoctoral Research Fellow, Department of Medicine, Deakin University, Australia

President of the International Society for Nutritional Psychiatry Research (ISNPR)

Summary

The emerging field of Nutritional Psychiatry has now established mechanistic, observational, and interventional data showing that individuals with depression benefit from dietary and nutrient-based therapies. These data have substantial implications for addressing the massive global burden of mental illness. In this session, we will discuss the top-tier evidence and recent guidelines regarding the role of healthy diets and a range of nutraceuticals for our mental health. We will also discuss the emerging importance of the gut microbiota in our mental health and the potential role of related nutraceuticals such as polyphenols and probiotics

S24. ISNPR (International Society for Nutritional Psychiatry Research) SESSION: A SHOWCASE OF RECENT RESEARCH UPDATES

TIME 16:20-17:30

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Chair: Wolf Marx, Ph.D.

*Alfred Deakin Postdoctoral Research Fellow, Department of Medicine, Deakin University, Australia
President of the International Society for Nutritional Psychiatry Research (ISNPR)*

Summary

The field of Nutritional Psychiatry has generated mechanistic, observational and efficacy data supporting a role for healthy dietary patterns in depression onset and symptom management. To guide future research and translation into clinical practice, this symposium provides a state-of-the-art overview of recent advances in our understanding of how diet may influence mental and brain health. This symposium provides an overview of the neurobiological mechanisms likely modulated by diet, with a specific focus on the role of the gut microbiome and informed by recent and ongoing clinical trials of microbiome-targeted dietary interventions. Consistent epidemiological evidence, particularly for depression, suggests an association between measures of diet quality and mental health, across multiple populations and age groups; these do not appear to be explained by other demographic, lifestyle factors or reverse causality. While nutrient dense dietary patterns are well-explored, the association between ultra-processed foods and depression have only recently been investigated. The emerging evidence regarding the role of ultra-processed foods in mental health, proposed mechanisms of action, and policy implications will be covered in this symposium. Finally, we will discuss ongoing efforts to translate the emerging data into the clinical practice. This will include discussion of ongoing efforts to develop effective dietary screening tools in the mental healthcare setting, the role of food insecurity in mental health, and data exploring the determinants of disordered eating behaviors.

TIME: 16:20-16:40

Ultra-Processed Food Consumption and Mental Health: A Systematic Review and Meta-Analysis of Observational Studies.

Melissa M. Lane, Ph.D.

Postdoctoral Researcher, Deakin University, IMPACT (the Institute for Mental and Physical Health and Clinical Translation), Food & Mood Centre, School of Medicine, Barwon Health, Geelong, Australia.

Abstract

Background: Since previous meta-analyses, which were limited only to depression and by a small number of studies available for inclusion at the time of publication, several additional studies have been published assessing the link between ultra-processed food consumption and depression as well as other mental disorders.

Methods: We aimed to build on existing reviews and clarify the associations between consumption of ultra-processed food and mental disorders by conducting an updated synthesis and meta-analysis of the contemporary evidence base.

Results: Seventeen observational studies were included (N=385,541); 15 cross-sectional and two prospective. Greater ultra-processed food consumption was cross-sectionally associated with higher odds of the prevalence of depressive and anxiety symptoms, both when these outcomes were assessed together (common mental disorder symptoms odds ratio: 1.53, 95%CI 1.43 to 1.63) and

separately (depressive symptoms odds ratio: 1.44, 95%CI 1.14 to 1.82; and, anxiety symptoms odds ratio: 1.48, 95%CI 1.37 to 1.59). Furthermore, a meta-analysis of prospective cohort studies demonstrated associations between greater ultra-processed food intake and an increased risk of incident depressive outcomes (hazard ratio: 1.22, 95%CI 1.16 to 1.28).

Conclusion: While we found evidence for associations of ultra-processed food consumption with the prevalence and incidence of adverse mental health, further rigorously designed prospective and experimental studies are needed to better understand directionality and causal pathways.

TIME: 16:40-17:00

Nutrition-Risk Screening and Dietary Assessment in Nutritional Psychiatry Research – More than Nutrients Only

Annabel S. Mueller-Stierlin, Ph.D.

Deputy Head of the Section on Health Economics and Health Services Research, Department of Psychiatry II, Ulm University, Germany

Research Group Leader at the Department of General Practice and Primary Care, Ulm University, Germany

Abstract

People living with serious mental illness frequently experience disordered eating, loss of control eating, significant weight gain and metabolic complications. Unhealthy dietary intake and disordered eating behaviors are key driving factors for the high prevalence of somatic comorbidities and for the mortality gap reported for people living with serious mental illness. To date, there is a lack of valid nutrition-risk screening tools to identify service users in mental health settings who are at risk for under- and overnutrition and other dietary issues. Moreover, in view of cognitive impairments, lack of drive and low motivation, typical dietary assessment methods seem to be less feasible and accurate for people living with serious mental illness. Practical examples from everyday clinical practice will illustrate these challenges. Subsequently, ongoing joint activities to promote nutrition-risk screening and dietary assessment in the field of Nutritional Psychiatry Research will be elaborated. First, the NutriMental screener, a tool specific for mental health settings will be presented. Second, an overview on current dietary assessment tools used in Nutritional Psychiatry Research will be provided. In a biopsychosocial approach, the scope of diet-related outcomes will be expanded beyond nutrient- and food-related quality criteria. The concept of “food well-being”, defined as a positive physical, psychological, emotional, and social relationship with food, will be introduced and its and its particular role in mental health settings will be discussed. To further enhance Nutritional Psychiatry Research, key outcomes need to be consented and standards for nutrition-risk screening and dietary assessment are required.

TIME: 17:00-17:20

Manipulating the Microbiome for Mental Health: Targeting the Gut-Brain Axis

Caroline Wallace, Ph.D.

Postdoctoral Fellow, School of Nutrition Sciences, University of Ottawa and Institute for Mental Health Research, The Royal Ottawa Mental Health Centre, Canada

Part-time Professor, School of Nutrition Sciences, University of Ottawa, Canada

Abstract

The gut microbiome has recently been implicated in influencing mental health outcomes through activity of the gut-brain axis. Thus, targeting the gut-brain axis by manipulating the gut microbiome using dietary interventions has been suggested as a potential novel treatment avenue for mental illness. Previously, research focused on interventions using macro- and micronutrients such as polyunsaturated fatty acids and vitamin D. With the advancement of research and technology in recent years, this effort has expanded to include microbiome-targeting interventions such as probiotics. Evidence indicating that probiotic supplementation may improve mental health outcomes will be reviewed. As the research continues to evolve, significant focus has been directed to teasing

out contributing biological pathways within the gut-brain axis, as well as refining and replicating scientifically rigorous intervention studies. Potential pathways driving the relationship between microbiome-targeting interventions, such as through immune activity, will be discussed.

With the link between these interventions, the gut-brain axis, and mental health outcomes continuing to be established increasingly explored and documented by researchers, we will describe how potential alternatives such as probiotic supplementation have become enticing in particular for patients for which standard pharmacological treatment may not be suitable. By understanding mental health outcomes within the context of the gut-brain axis, this body of research aims to overcome the shortcomings of standard treatments and discover novel treatment options for mental health disturbances that are accessible and have the potential for a role in prevention.

WK21 and WK22. 睡眠障礙臨床工作坊 WORKSHOP of SLEEP DISTURBANCES

TIME 09:00-11:20, Sun, Oct. 29 2023

VENUE Classroom 203, 2F, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan

召集人：蘇冠賓教授

台南市立安南醫院副院長
憂鬱症中心、身心介面研究中心主持人
精神醫學及神經科學教授
高雄醫學大學醫學士
倫敦大學國王學院精神醫學所博士

召集人：張正和主任

高雄榮民總醫院精神部主任
高雄榮民總醫院精神部主治醫師
國防醫學院醫學系臨床教授

工作坊介紹

睡眠醫療是一個跨專科、跨職類的專業。本教育工作坊邀請國內精神醫學、臨床心理、睡眠科技、神經醫學等領域中，專精於睡眠醫療的五位專家，擬定臨床上重要的五個講題，講述重要的核心知識，協助學員們溫故知。

This educational workshop aims to provide a core curriculum on the evaluation and management of sleep disturbances. The workshop will be compiled by five topics delivered by experts from Psychiatry, Clinical Psychology, Sleep technology and Neurology. The essence of this workshop is to serve as the foundation of integrated intervention on primary and comorbid sleep disorders.

TIME: 09:00-09:20

睡眠障礙的身心整合評估與跨專科共同照護

蘇冠賓

中國醫藥大學安南醫院副院長
憂鬱症中心、身心介面研究中心主持人
精神醫學及神經科學教授
高雄醫學大學醫學士
倫敦大學國王學院精神醫學所博士

內容摘要

睡眠障礙一方面是壓力焦慮的重要症狀，另一面又會影響情緒調節、記憶與學習的功能、甚至削弱神經細胞的可塑性，因此睡眠障礙的適當處置刻不容緩。根據實證醫學對睡眠障礙的處置，第一重點在於找出潛在疾患並治療核心病因，造成失眠或焦慮最常見的核心疾患是憂鬱症、焦慮症、思覺失調症、雙極性情感性精神病、或老年人器質性精神病合併行為症狀。然而，核心疾病的診斷相當困難，非精神專科醫師有時無法查覺。

睡眠障礙的處置第二重點是非藥物治療：無論是不是潛在病因造成的失眠或焦慮，所有實證醫學和治療指引都會強調非藥物處置做為第一線的治療，同時提到使用BZD類藥物的以短期使用原則，也建議病患和醫師謹防長期使用的成癮性和危險性 (Incze et al. JAMA Intern Med. 2018;178(11):1572)。「鎮定劑或安眠藥」的使用是暫時性的症狀處理，不是治療的主要重點，

雖然全世界都存在 BZD 類藥物成癮的問題，然而台灣醫療保險制度中「病患就醫偏好為中心」的醫療服務、以及「論量計酬的給付制度」的結構，也讓相關問題變得更加複雜。

本講座的目的，在介紹睡眠障礙的身心整合評估及整合性治療的重要和基本技能，並推動跨專科共同照護，以提升病患的照顧品質。

TIME: 09:20-09:40

失眠的藥物治療

陳錫中醫師

國立臺灣大學醫學院附設醫院精神醫學部心身醫學科主任

國立臺灣大學醫學院附設醫院精神醫學部暨睡眠疾患中心主治醫師

國立臺灣大學醫學院臨床副教授

內容摘要

失眠症治療藥物其機轉及作用不同，過去用藥準則以最低有效劑量、間斷使用、短期使用、慢慢減量、注意反彈性失眠等概念為主。由於實證的增加，失眠症診治的流程指引推陳出新。本次演講將介紹近年來之失眠診治準則中藥物於失眠症治療之角色與新觀念，同時也介紹新發展安眠藥物之機轉與適應症。此外，藥物治療之不良副作用、減藥的策略與原則以及特定疾病與族群用藥之原則也將一併介紹。最後則介紹 2021 年整合實證結果與跨領域專家意見，本土編製的「失眠診治準則」，以提供國內臨床照護者參考使用。

TIME: 09:40-10:00

失眠的認知行為治療 (Cognitive Behavioral Therapy for Insomnia)

蕭帆琦 Fan-Chi Hsiao

銘傳大學諮商臨床與工商心理學系助理教授

內容摘要

失眠認知行為治療 (Cognitive Behavioral Therapy for Insomnia, CBT-I) 已成為面對失眠患者時，非藥物治療的第一線治療，其療效已獲實徵研究證據支持，可以個別或團體的形式進行。在長期追蹤研究當中亦顯示單獨使用 CBT-I 或 CBT-I 合併藥物使用的療效皆比單獨使用藥物之療效較佳且持續更久。CBT-I 涵蓋許多內容，例如：睡眠衛生教育 (Sleep hygiene)、刺激控制法 (Stimulus control instruction)、睡眠限制法 (Sleep restriction therapy) 等，不同的治療技巧其背後理論機制有所不同，亦有研究者關注其個別療效。本次演講主要以 CBT-I 之架構為主，分別說明其內容及背後理論機制，最後介紹生理時鐘相關議題。

TIME: 10:20-10:40

醫療新科技，在睡眠領域的應用

江秉穎醫師

國際睡眠科學與科技協會 (ISSTA) 德國總會暨臺灣分會理事長

英國創新醫療健康科技研發中心 (IMHTC) 共同創辦人

IMHTC 亞太營運處執行長暨門診部「思維連鎖睡眠醫學中心」總院長

台灣科技部睡眠科技產學聯盟主持人

國立陽明交大學睡眠研究中心執行長

內容摘要

全球睡眠科技產業標準之制定：德國柏林是全球第一個成立的睡眠科技協會-國際睡眠科學與科技協會 (ISSTA, International Sleep Science and Technology Association) 的所在地，於 2012 年成立。該協會已經成為睡眠科技改善人類睡眠/生活品質與慢病管理與駕駛安全的重要推手。同年，江秉穎醫師主編全球睡眠科技領域第一本英文教科書《現代睡眠科技簡介 (Introduction to Modern Sleep Technology)》，由知名出版社 Springer 所出版，藉此定義睡眠科技新領域。

2016年4月江醫師當選為ISSTA德國總會理事長。並於2017年推動亞太經合會睡眠科技提案。

對睡眠科技領域範疇的規劃，江醫師認為可廣義地納入1.睡眠障礙、2.睡眠相關慢性病與併發症、3.睡眠相關工作與生活。根據以上三個範疇，現代睡眠科技的發展又可細分為以下幾個細項：居家篩檢、臨床診斷及治療睡眠相關疾病的人員、工具及方法。改善及偵測睡眠環境的相關科技。睡眠模型的建立。睡眠障礙引發的交通及職業安全。睡眠科技的研發。臨床睡眠醫學的研究。睡眠科學及睡眠科技的人才培訓教育訓練等。基於此本演講將進一步介紹睡眠科技在醫療的應用。

TIME: 10:40-11:00

經疾患與睡眠障礙

楊鈞百

台中光田醫院神經內科主任

台灣頭痛學會理事長

台灣睡眠學會理事

弘光大學暨教育部部定教授

美國史丹佛大學睡眠中心研究

內容摘要

睡眠不只是腦部休息而已，而是腦部用和『清醒』不同的方式來運轉。掌管清醒與睡眠的兩大系統除了受到外在因素的影響更受到內在神經系統的調控而牽扯到很多複雜的機制。本演講將以美國睡眠醫學會出版的國際睡眠障礙疾病分類第三版為主軸，介紹常見睡眠相關神經疾患的臨床表現與治療，以及近年來睡眠領域在神經學上的重要發現，並提供學員在臨床照護上參考使用。

WK23 and WK24. 睡眠與中醫工作坊 WORKSHOP OF SLEEP AND TCM

TIME 14:00-16:30, Sun, Oct. 29 2023

VENUE Classroom 203, 2F, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan

召集人: 張恒鴻教授

中國醫藥大學中西醫結合研究所所長

工作坊內容

- 一、龔彥穎主任由以往臨床試驗結果探討自律神經調節睡眠的中醫思維與方法。
 - 二、劉耕豪主任介紹中醫基礎理論與睡眠生理之相關性，提供陰陽平衡抗老化的養生觀點。
 - 三、李宗諺教授的研究顯示：腸道菌叢的變化可作為老鼠睡眠間斷的即時反映。中藥複方 ATG-125 可防止多巴胺神經的損失，減少 α -synuclein 的病理現象。
 - 四、郭育誠院長由經絡理論觀點，探討脈象與半夜驚醒的關聯，也反應身心靈三層次的密切關係。
 - 五、吳炫璋主任將介紹中醫治療失眠常用的中草藥與針灸穴位，及其治療失眠的實證基礎，以及中醫食療的臨床運用。
- 五項演講後綜合討論：傳統中醫可能幫助人們調整內部以改善睡。

TIME: 14:00-14:20

自律神經調節睡眠的中醫思維與方法

龔彥穎

台北榮總傳統醫學部部主任

內容摘要

《內經》認為引起失眠的原因如「今厥氣客于五臟六腑，則衛氣獨行其外，行于陽而不得入于陰，陽氣盛而陰氣虛，故令人夜不能寐」此觀點與睡眠醫學的一派認為失眠是「過度警醒 (hyperarousal)」的說法類似。

另一個《內經》認為引起失眠的原因「人有臥而有所不安者，何也....臟有所傷及，精有所之寄」指出臟腑損傷，陰陽失調是造成失眠的原因。此觀點相當於現代醫學中許多內科疾病（如氣喘、巴金森症）引起自律神經失調的睡眠障礙。

失眠患者常有自律神經活性失調的現象，利用中醫理論將失眠患者分類，並找出最適合的中西醫整合治療，可提升失眠治療精準度。

TIME: 14:20-14:40

睡得好，人不老—從晝夜節律到中醫養生

劉耕豪主任

長庚大學中醫學系助理教授暨醫預科主任

內容摘要

睡眠是一種普遍存在的現象，對於人體穩定至關重要。一般認為隨著年齡的增長，與衰老相關的睡眠變化也相應出現，包括睡眠的宏觀結構（例如睡眠持續時間和睡眠階段）和微觀結構（例如睡眠多導睡眠圖的睡眠振蕩的數量和質量）均有所改變，晝夜節律也同時受到影響，因此睡眠中斷往往是正常衰老的常見特徵，也是中醫從陰陽角度理解睡眠和現代醫學不謀而合之處。

晝夜節律可理解為陰陽的變化，也是生物體維持恒定的核心規律。中醫試著從順應自然的角度理解睡眠生理，也由節律的角度提供抗老化的養生觀點，達到「睡得好、人不老」的目標。

TIME: 14:40-15:00

同步日變節律與日夜週期改善睡眠與健康

李宗諺 教授

長庚大學中醫系傳統中醫研究所教授

內容摘要

日變節律同步身體對每日環境的日夜變化，對健康和睡眠扮演重要角色。長期夜班輪值使內建的日變節律與外部明暗環境去同步化，可導致多種身心失調，包括癌症以及心血管和神經退行性疾病。電針對腸道微生物菌叢與血管活性腸肽受體 2 和腸道緊密連結蛋白的上調可改善睡眠剝奪小鼠結腸炎症狀。說明微生物生態系與睡眠剝奪的相關性。

睡眠障礙是許多神經退行性疾病的前驅症狀，這些疾病都有一個共同點，主要是由大腦中 α -突觸核蛋白異常聚集引起的。我們使用富含抗氧化的中草藥配方 ATG-125 可防止多巴胺樣神經元的損傷，並改善帕金森病小鼠大腦 Bmal 和 Clock 日變節律基因，並且通過 ATG-125 的治療可顯著減少 α -突觸核蛋白病理性堆積。

傳統中醫將在未來為睡眠醫學提供實際有用的醫療模式。人們可以通過系列的方法讓身體同步內部日變節律以獲得更好的睡眠。

TIME: 15:30-15:50

失眠患者的血壓波分析

郭育誠 院長

當代漢醫苑中醫診所中西醫師暨院長

臺北醫學大學醫學系藥理學科兼任助理教授

中國醫藥大學學士後中醫學系兼任助理教授

臺灣益謙股份有限公司創辦人兼董事長

中華民國立法院醫務室特聘醫師

內容摘要

漢醫從《內經》以降的經典，一貫把身體、心理、精神、行為與言語都視為一個整體，而無形的氣與經絡理論在漢醫的精神醫學中，同樣扮演著重要、系統化且主導性的角色。

當病患出現肝盛的脈象，進而累積成肝火傷陰的病機，就容易影響到睡眠。病患常常在深夜一點到三點驚醒過來，此段時間正是足厥陰肝經循行的時辰，原本身體在這段時間藉「夜臥血氣歸肝」來養肝陰，結果病患肝火傷陰，反而身熱難眠於此時煩悶醒來。接著反侮傷到手太陰肺經，失眠的時間更長了。一系列的病變貫穿著天時、生理與心理，也反應著身心靈三個層次不可分割的密切關係。

TIME: 15:50-16:10

中醫藥治療失眠的臨床應用

吳炫璋主任

台北慈濟醫院中醫部部主任兼中醫婦科主任

慈濟大學學士後中醫系部定副教授

內容摘要

中醫治療失眠症已有數千年的歷史，中醫學認為失眠的病機是由於氣血、陰陽失和，臟腑功能失調，以致心神被擾，神不守舍而不能安眠。

中草藥與針灸是中醫用來治療失眠的常用方法，許多養心安神或滋陰瀉火的中草藥，無論在人體試驗或是動物試驗都證實其中的有效成分具有鎮靜催眠的效果，而能達成促進入睡、延長睡眠時間、提高睡眠品質的作用。此外，針灸則具有降低交感神經活性，提升副交感神經活性，幫助入睡的效果。

本次演講將介紹中醫治療失眠常用的中草藥與針灸穴位，及其治療失眠的實證基礎，以及中醫食療的臨床運用，提供與會專家學者參考。

AWARD CEREMONY & CLOSING REMARKS

TIME 17:30-18:00, Sun, 29 Oct., 2023

VENUE Stanford Lecture Hall, 2nd floor, Excellence Building, China Medical University (Shuinan Campus), Taichung, Taiwan.

Closing Remark by the Symposium Chairman

Kuan-Pin Su, M.D., Ph.D.

Professor, College of Medicine, China Medical University (CMU), Taichung, Taiwan

Deputy Superintendent, An-Nan Hospital-affiliated, China Medical University, Tainan, Taiwan

Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

Founding President, Taiwanese Society for Nutritional Psychiatry Research

Award Ceremony by Scientific Committee Chairman

Lu-Hai Wang, Ph.D.

Chair-Professor & Vice President, China Medical University, Taichung, Taiwan

National Health Research Institutes Investigator Emeritus, Taichung, Taiwan

Director, Chinese Medicine Research Center

Jane Pei-Chen Chang, M.D., Ph.D.

Assistant Professor, College of Medicine, China Medical University, Taichung, Taiwan

Director, Child and Adolescent Psychiatry Division, Department of Psychiatry, China Medical University (CMU) Hospital, Taichung, Taiwan.

Deputy Director, Mind-Body Interface Research Centre, China Medical University Hospital, Taichung, Taiwan

President, Taiwanese Society for Nutritional Psychiatry Research

POSTER PRESENTATIONS

E-poster: <https://mbisymposium.org/2023/eposter.php>

- 5PB003** ★ Life Expectancy, Estimated Loss-of-life Expectancy, and Medical Costs of Persons with Bipolar Disorder (BD) in Taiwan: A Nationwide Population-Based Study.
Ikbal Andrian Malau, *Indonesia*
- 5PB004** ★ Estimation of Lifetime Risks and Life Expectancy of Panic Disorder: A Nationwide Cohort Study in Taiwan.
Kai-Jie Yang, *Taiwan*
- 5PB101** ★ Improvement on Alzheimer's Disease and β -Amyloid-Induced Toxicity by Black Raspberry.
Yohannes Tandoro, *Indonesia*
- 5PB102** ★ The Psychoneuroimmunological Model of Childhood Trauma on Loneliness and Depression in Older Adults.
Rachel R. Jin, *Hong Kong*
- 5PB103** ★ Pharmacologic Interventions for the Prevention of Postoperative Delirium in Elderly Patients: A Network Meta-Analysis of Randomized Controlled Trials
Ting-Hui Liu, *Taiwan*
- 5PB104** ★ A 12-week Randomized Placebo-Controlled Trial of Adjuvant Omega-3 Polyunsaturated Fatty Acids in the Treatment of Major Depressive Episode of Bipolar Disorder.
Halliru Zailani, *Nigeria*
- 5PB105** ★ Plasma Cell-Free RNA Profiling of Vietnamese Alzheimer's Patients Reveals a Linkage with Chronic Inflammation and Apoptosis: A Pilot Study.
Anh Phuc Hoang Le, *Vietnam*
- 5PB106** ★ EEG-Based Automated Mental Disorder Detection Using Artificial Intelligence.
Lua Ngo, *Vietnam*
- 5PB107** ★ Sleep Disorders in the Transitional Age Population During the COVID Pandemic
Akhil S. Pola, *USA*
- PP005** # Elevated Systemic Inflammation Markers in Adolescents with Non-Suicidal Self-Injury.
Jie Zhang, *China*
- PP006** # Pathway from Childhood Trauma to Non-suicidal Self-injury in Adolescents with Major Depressive Disorder: The Chain-Mediated Role of Psychological Resilience and Depressive Severity.
Xinyu Fang, *China*
- PP007** Chronic Nasal Inflammation During the Lactation Period Induces Transient and Long-Term Effects on Gut Microbiota.
Sanae Hasegawa-Ishii, *Japan*
- PP008** The Association Between Inflammation and Kynurenine Pathway Metabolites in Electroconvulsive Therapy for Schizophrenia: Implications for Clinical Efficacy.
Yu Wang, *China*
- PP010** Establishing Multiple Courses in the Teaching and Learning of Taijiquan and TCM Meridian Guidance.
Po-Yuan Chen, *Taiwan*

- PP014** # Revealing the Heterogeneity of Plasma Protein and Cognitive Trajectory among Mild Cognitive Impairment Patients by Clustering of Brain Atrophy Features.
My Nguyen, **Vietnam**
- PP016** # Do You Play Instagram? A Pilot Study on Perceived Stress of Playing IG and Psychological Resilience.
Po-Hsuan Juan, **Taiwan**
- PP017** The Effect of an Art Lantern Creation Group on People with Schizophrenia.
Yi-Feng Li, **Taiwan**
- PP019** # An Assessment of Alpha Music Effects on Brain-Computer Interface Performance: A Preliminary Study.
Vy Huynh, **Vietnam**
- PP021** Application of Rational-Emotive Behavior Therapy in the Nursing Experience of a Patient with Schizophrenia and Comorbid Obsessive-Compulsive Behavior.
Jia-Rong Li, **Taiwan**
- PP023** Stroke and Suicide among People with Severe Mental Illness.
Chun-Hui Liao, **Taiwan**
- PP024** # Developing an Automatic Sleep Stage Scoring Model Based on Raw Single-Channel EEG.
Thanh Luu, **Vietnam**
- PP025** To Investigate the Association Between Social Rhythm and Daily Hassles in Patients with Bipolar Affective Disorders.
Ruei-You Chen, **Taiwan**
- PP027** Application of Panax Ginseng Extract, Ginkgo Biloba Extract, and Far-Infrared Light in the Treatment of Depression and its Mechanism.
Lee I, **Taiwan**
- PP101** Prophylactic Effect of Omega-3 Polyunsaturated Fatty Acids (n-3 PUFAs) Monotherapy to Prevent Recurrent Major Depressive Disorder (MDD): A Randomized Controlled Trial.
Ikbal Andrian Malau, **Indonesia**
- PP105** Effectiveness of Internet-Based Cardiac Rehabilitation on Depression among Patients with Ischemic Heart Disease: A Systematic Review and Meta-Analysis.
Sujeewa Dilhani Maithreepala, **Sri Lanka**
- PP106** The Association Between Brain Metastability and Depressive Symptoms in the Elderly.
Maria Teresa Wijaya, **Hong Kong**
- PP107** Microdeletions of Neurexin 1 (NRXN1) Conferring Risk of Cognitive Impairment: A Case Report of a Family with Schizophrenia.
Shiau-Foon Tee, **Malaysia**
- PP108** An Analysis by State on the Effect of Movement Control Order (MCO) 3.0 Due to COVID-19 on Malaysians' Anxiety: Evidence from Google Trends.
Nicholas Tze Ping Pang, **Malaysia**

* 5-min Poster Blitz Awardees

E- Poster Presentation



E-poster QR Code

OVERSEAS TRAVEL AWARDEES

5PB106	EEG-Based Automated Mental Disorder Detection Using Artificial Intelligence. Lua Ngo, Vietnam
5PB107	Sleep Disorders in the Transitional Age Population During the COVID Pandemic Akhil S. Pola, USA
OP008	Total Oxidant Capacity and Leukocyte Telomere Length in Schizophrenia: A Case-Control Study. Goh Xue Xin, Malaysia
OP011	A Pilot Study of the Efficacy of a Transdiagnostic Single-Session Circus-Based Mindfulness Programme in Rural North Borneo. Nicholas Pang, Malaysia

MBI TECHNICAL TOUR 探索花園城市的身心時光之旅-中興新村

TIME	09:00-17:00, Mon., 30 Oct., 2023
Location	Nantou County (Zhongxing New Village 中興新村)
09:00-09:45	Depart from Fairfield by Marriott Taichung 台中萬楓酒店出發, 前往南投
09:45-09:50	Transport to Zhongxing New Village, the former provincial capital 抵中興新村
09:45-12:30	Guided tour with Tandem tricycle & Chinese Herbal Medicine DIY 中興新村省府導覽- (協力車派對+漢方藥草球手作活動)
12:35-12:50	Transport to Restaurant for Lunch 離開省府, 前往午餐地點
12:50-14:30	Taiwanese Homestyle Lunch 台灣家常風味午餐
15:00-16:30	Guided tour of the Wufeng Lin Family Mansion and Garden 霧峰林家宮保第園區參觀導覽
16:30-17:00	Return journey to Fairfield by Marriott Taichung 回程前往台中萬楓酒店

LED智能光療儀

經美國FDA及台灣衛福部核准

美國FDA核准字號K142256

衛部醫器製字第 006800 號

LED觸控螢幕

可升級的作業系統

認證電源供應器

UL認證及FCC EMI
電磁干擾認證



內建治療模式
自訂治療模式

獨立雙通道輸出

可同時治療
雙部位或雙患者



- 專利矽膠包覆LED模組
- 親膚且易貼合照射部位
- 多款照射矽膠片 可依照需求選配

可依不同病症
做精準治療



Duration
Control



Adj
Irradiance



Dynamic
Frequency



Precise Dose
(Fluence)



Algorithmic
Sessions

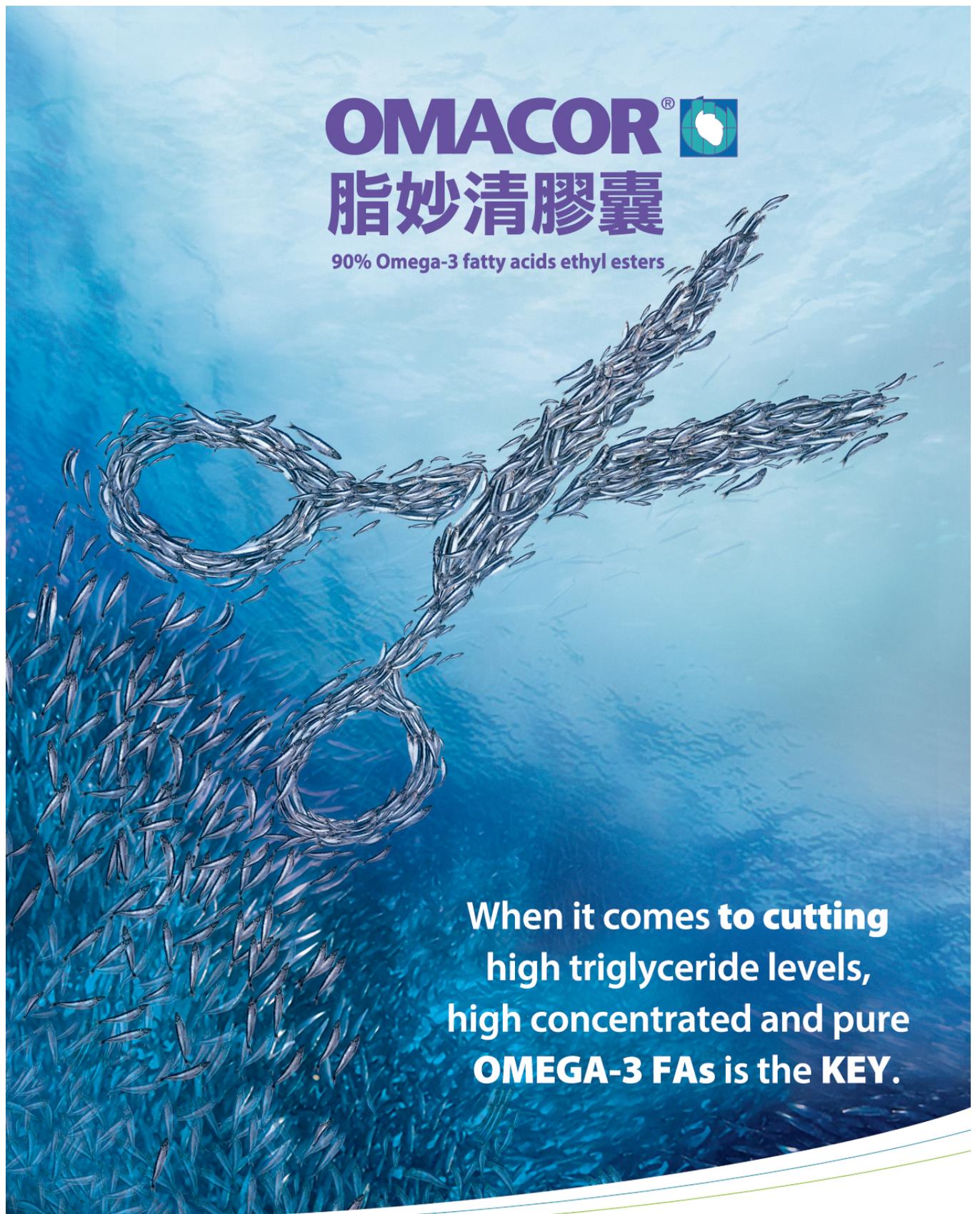
歐美台15國
以上許可上市
經多國第三方認證



OMACOR[®] 

脂妙清膠囊

90% Omega-3 fatty acids ethyl esters



**When it comes to cutting
high triglyceride levels,
high concentrated and pure
OMEGA-3 FAs is the KEY.**

全新成分

敏銳調節多巴胺
思覺失調更心安

衛部藥輸字第027365號
衛部藥輸字第027366號
衛部藥輸字第027368號



適應症及用法用量

思覺失調症，起始劑量1mg/day，建議劑量2~4mg/day。

藥理作用

Brexpiprazole可能是藉由血清素5-HT_{1A}與多巴胺D₂受體之部分致效作用以及血清素5-HT_{2A}受體之拮抗作用的合併作用而產生療效。

使用禁忌

已知對brexpiprazole或其任一成分過敏的病人，禁用REXULTI。

不良反應

靜坐不能、體重增加、腹瀉、消化不良等。

疾病分類代碼

ICD10: F20

健保代碼

1mg: BC27365100, 2mg: BC27366100, 4mg: BC27368100

Valdoxan®

BACK TO LIFE → agomelatine

ON THE ROAD TO FULL RECOVERY



有效緩解

鬱症

的2個核心症狀

重拾生活樂趣



成份

每錠含 Agomelatine 25 mg

適應症

成人鬱症

包裝

每盒28錠

用法・用量

一般建議每天一顆 Valdoxan® 25mg 於睡前口服使用。治療兩週後，若症狀沒有改善時，劑量可增加至每天 50mg，也就是 Valdoxan® 25mg 兩顆，於睡前一次服用。

於憂鬱症老年患者(<75歲)，agomelatine(每天25至50mg)的療效與安全性已經確立。

禁忌

- 對有效成分或任一賦形劑過敏者。
- 肝功能不全者，特別是針對肝硬化或活動性肝臟疾病，或肝轉胺酶指數≥3倍正常值上限者。
- 併用CYP1A2強抑制劑者(如fluvoxamine、ciprofloxacin)

不良反應

最常見的不良反應是噁心和暈眩，不良反應通常是輕度或中度，並且在開始治療後前兩周內發生。這些不良反應通常是短暫的，而且一般不會導致停止治療。

有效降低疼痛 改善生活品質^{1,2}



糖尿病周邊神經病變所引起的
神經性疼痛、帶狀疱疹後神經痛、
成人局部癱瘓的輔助治療、
纖維肌痛
脊髓損傷所引起的神經性疼痛



LYRICA® 利瑞卡膠囊 75 毫克/ Lyrica hard Capsule 75mg

衛署藥輸字第 024995 號 北市衛藥廣字第 XXXXXXXXX 號

【成分含量與劑型】 膠囊劑：75 mg、150 mg 與 300 mg
【用法與用量】 口服，空服服用或，亦可與食物併服。

【適應症】 糖尿病周邊神經病變所引起的神經性疼痛、帶狀疱疹後神經痛、成人局部癱瘓的輔助治療、纖維肌痛、脊髓損傷所引起的神經性疼痛

糖尿病周邊神經病變所引起的神經性疼痛：對於肌酐清除率 60 mL/min 以上的病人，LYRICA 的最高建議劑量是 150 mg 每天兩次或 100 mg 每天三次 (300 mg/天)。應從 75 mg 每天兩次或 50 mg 每天三次 (150 mg/天) 開始給藥，根據療效和耐受性可在一週之內將劑量增加到 300 mg/天。帶狀疱疹後神經痛：對於肌酐清除率 60 mL/min 以上的病人，LYRICA 的建議劑量是 75-150 mg 每天二次或 50-100 mg 每天三次 (150-300 mg/天)。應從 75 mg 每天二次或 50 mg 每天三次 (150 mg/天) 開始給藥。根據療效和耐受性可在一週之內將劑量增加到 300 mg/天。用 300 mg/天治療 2-4 週之後的顯著疼痛，而且能耐受 LYRICA 的病人，可以每達達 300 mg 每天二次或 200 mg 每天三次 (600 mg/天) 的劑量治療。成人局部癱瘓的輔助治療：已經證實 Lyrica 在 150-400 mg/天的劑量下是成人局部癱瘓發作的有效輔助治療。每日總劑量應該分二次至三次給藥。纖維肌痛：Lyrica 用於治療纖維肌痛時的建議劑量為 300 至 450 毫克/天。開始時應先給予 75 毫克每天兩次 (150 毫克/天) 的劑量。根據療效與耐受性而定，可於 1 週內將劑量提高至 150 毫克每天兩次 (300 毫克/天)。若病人在 300 毫克/天的劑量下未能獲得足夠的治療效益，可將劑量進一步提高至 225 毫克每天兩次 (450 毫克/天)。脊髓損傷所引起的神經性疼痛：Lyrica 用於治療脊髓損傷所引起之神經性疼痛時的建議劑量為 150 至 600 毫克/天。建議的起始劑量為 75 毫克每天兩次 (150 毫克/天)。根據療效與耐受性而定，可於 1 週內將劑量提高至 150 毫克每天兩次 (300 毫克/天)。對以 150 毫克每天兩次之劑量治療 2 至 5 週後未能達到足夠之疼痛緩解效果，且仍可耐受 LYRICA 之作用的病人，可將治療劑量增加至最高 300 毫克每天兩次。

【禁忌】 LYRICA 禁用於已知對 pregabalin 或本品其他任何成分過敏的病人。曾有使用 pregabalin 的病人發生血管性水腫與過敏的現象。

【警語及注意事項】 1. 血管性水腫：上市後曾有病人在 LYRICA 治療初期與長期治療期間發生血管性水腫的報告。過敏有病人開始使用 LYRICA 治療後不久便發生過敏的上市後報告。自給行為與自發性抗體藥物 (AEDs)，包括 LYRICA，會升高使因此類藥物治療任何適應症之病人出現自發性或自發行為的風險。呼吸和肺病例報告。人體試驗和動物研究所得證據顯示，LYRICA 與中樞神經系統 (CNS) 抑制劑 (包括鴉片類藥物) 同時給藥，或有在呼吸困難的背景情況下，會導致嚴重、危及生命或致死性的呼吸抑制。頭暈和嗜睡：LYRICA 可能會引起頭暈與嗜睡。突然或快速停藥導致不良反應風險增加與所有抗癲癇藥 (AED) 相同，逐漸停用 LYRICA 以降低癲癇病人癲癇發作頻率增加的可能性。周邊水腫：LYRICA 治療可能會引起周邊水腫。體重增加：LYRICA 治療會使體重增加。致腫瘤可能性：在 LYRICA 標準臨床前活體內終身致毒性研究中，在兩個不同品種的小鼠發現到血管肉瘤的發生率增高。對眼睛的影響：在對照性試驗中，接受 LYRICA 治療的病人通報視力模糊的比例 (7%) 比接受安慰劑治療者 (2%) 高，這些症狀在大部分病例會隨著繼續給藥而消失。肌酸激酶升高：LYRICA 治療會伴隨肌酸激酶 (creatinine kinase) 升高。

【不良反應】 在結合所有病人群的上市前對照性試驗中 (包括 CPN、PhN 以及合併局部癱瘓的成人病人)，接受 LYRICA 治療者比接受安慰劑治療者較常通報頭暈、嗜睡、口乾、水腫、視力模糊、體重增加及「思考異常」(主要是專注力/注意力困難等不良反应內於或等於或等於 3% 而並非在安慰劑組出現比率的副作用)。

【常見不良反應】 全身：常見：頭痛、過敏反應、發燒、消化不良、常見：胃腸炎、食慾增加。血液與淋巴系統：常見：疲勞。肌肉骨骼系統：常見：關節痛、腿部痠痛、肌痛、肌無力。神經系統：常見：焦慮、人格解體、肌張力過強、知覺減退、性感減退、眼球震顫、感覺異常、錯覺、昏眩、抽搐。皮膚與附屬構造：常見：瘙癢。特殊感官：常見：結膜炎、視網、中耳炎、耳鳴。生殖泌尿系統：常見：性冷淡、陽萎、頻尿、尿失禁。

備註：*此為處方資訊摘要，完整處方資訊請詳閱仿單。

Reference: 1. Roth T, van Seventer R, Murphy TK. Curr Med Res Opin. 2010;26(10):2411-2419. 2. Rosenstock J, et al. Pain. 2004;110(3):628-38.

13th Mind-Body Interface International Symposium

PNIRASia-Pacific Symposium

主辦單位 (Organizer) :

China Medical University Hospital 中國醫藥大學附設醫院

Taiwanese Society for Nutritional Psychiatry Research 台灣營養精神醫學研究學會