



**Leopoldina**  
Nationale Akademie  
der Wissenschaften

האקדמיה הלאומית הישראלית למדעים  
المجمع الوطني الإسرائيلي للعلوم والآداب  
THE ISRAEL ACADEMY OF SCIENCES AND HUMANITIES



האקדמיה הלאומית הישראלית למדעים והאקדמיה הלאומית הגרמנית למדעים - לאופולדינה  
מתכבדות להזמין אתכם לכינוס משותף בנושא

The Israel Academy of Sciences and Humanities and the German National Academy of Sciences Leopoldina  
cordially invite you to the 7th Inter-Academy Symposium

# RECENT ADVANCES IN NEUROSCIENCE

**בימים שלישי-רביעי כ"ט-ל' בסיוון תשפ"ב**  
**Tuesday – Wednesday, June 28–29, 2022**

**Scientific committee of the symposium:**

**Yadin Dudai**, Chair, Science Division, The Israel Academy of Sciences and Weizmann Institute of Science;  
**Arthur Konnerth**, Munich Technical University; **Peter Riederer**, University Hospital of Wurzburg;  
**Asya Rolls**, Technion - Israel Institute of Technology

**Tuesday, June 28, 2022**

08:30 **Registration and coffee**

09:00 **Welcome addresses**

**David Harel**, President, Israel Academy of Sciences and Humanities  
**Gerald Haug**, President, German National Academy of Sciences Leopoldina  
**Barbara Seimetz**, Head of the Department of Science and Environment at the German Embassy  
Renewal of the Memorandum of Understanding between IASH and Leopoldina

## SESSION I

**Chair: Asya Rolls**, Technion - Israel Institute of Technology

09:30 **Onur Güntürkün**, Ruhr-University Bochum  
Cognition without cortex

10:00 **Yoav Livneh**, Weizmann Institute of Science  
Brain-body interactions: sensations and predictions in insular cortex

10:30 **Merav Ahissar**, The Hebrew University of Jerusalem  
Perceptual priors explain skill acquisition

11:00 **Coffee break**

## SESSION II

**Chair: Peter Riederer**, University Hospital of Wurzburg

11:30 **Thomas Misgeld**, Munich Technical University & German Centre for Neurodegenerative Diseases Munich  
Mechanisms of axon damage in neuroinflammation

12:00 **Avi Mendelsohn**, University of Haifa  
Building memories by mistake: the impact of errors on long-term memory

12:30 **Rafi Haddad**, Bar-Ilan University  
How do gamma oscillations affect the neural activity of downstream neurons?

13:00 **Lunch break**

## SESSION III

**Chair: Moussa Youdim**, Technion - Israel Institute of Technology

14:00 **Michael Thomas Heneka**, Luxembourg University  
Does innate immunity contribute to neurodegenerative disease?

14:30 **Firas Mawase**, Technion - Israel Institute of Technology  
Neural control of finger dexterity

15:00 **J. Matt McCrary**, Hannover University of Music, Drama and Media  
Fatigue in elite musicians: symptoms, consequences, and peripheral/central mechanisms

15:30 **Coffee break**

## SESSION IV

**Chair: Onur Güntürkün**, Ruhr-University Bochum

16:00 **Sarah Kittel-Schneider**, University Hospital of Wurzburg  
The brain in a dish – stem cell models in psychiatry

16:30 **Stefan Vestring**, University of Freiburg  
GluN2D: a novel target for rapid antidepressive treatment

17:00 **ROUNDTABLE - Research horizons and Israeli-German cooperation in neuroscience**

**Moderators**

**Israel Nelken**, The Hebrew University of Jerusalem  
**Arthur Konnerth**, Munich Technical University

**Funding organisations**

**Daniel Zajfman**, Chair of the Academic Board of the Israel Science Foundation

**Anke Ley**, German Research Foundation DFG (virtual)

**Sonja Spal**, Alexander von Humboldt Foundation (virtual)

**Lou Bohlen**, Minerva Foundation of the Max Planck Society (virtual)

18:15 **Adjourn**

**Wednesday, June 29, 2022**

## SESSION V

**Chair: Arthur Konnerth**, Munich Technical University

09:30 **Benjamin Judkewitz**, Charité University Medicine Berlin  
Imaging the smallest vertebrate brain while singing

10:00 **Yaniv Ziv**, Weizmann Institute of Science  
The dynamic engram: long-term spatial memory is maintained in the presence of ongoing changes in hippocampal representations

10:30 **Shira Knafo**, Ben-Gurion University of the Negev  
AMPA receptors: from fundamental insights to cognitive enhancement

11:00 **Coffee break**

## SESSION VI

**Chair: Menahem Segal**, Weizmann Institute of Science

11:30 **Katharina Lichter**, University Hospital of Wurzburg  
Three-dimensional nanoscopy of hippocampal mossy fiber active zones in RIM1a knock-out and wildtype mice

12:00 **Ivo Spiegel**, The Weizmann Institute of Science  
Mechanisms of experience-dependent plasticity in cortical GABAergic circuits

12:30 **Rhiannon McNeill**, University Hospital of Wurzburg  
Development of a human-based, disease-relevant in vitro model for investigating the role of genetic variation in the ADGRL3 gene in ADHD pathogenesis

13:00 **Lunch break**

## SESSION VII

**Chair: Sarah Kittel-Schneider**, University Hospital of Wurzburg

14:00 **Jastyn A. Pöplau**, University Medical Centre Hamburg-Eppendorf  
Reorganization of adolescent prefrontal circuitry is required for the functional maturation of cognitive abilities

14:30 **Naomi Habib**, The Hebrew University of Jerusalem  
Unmasking cellular dynamics in Alzheimer's disease

15:00 **Yaara Yeshurun**, Tel Aviv University  
It's not what you look at that matters, it's what you see

15:30 **Concluding remarks by members of the scientific committee**  
**Yadin Dudai**, Chair, Science Division, The Israel Academy of Sciences; Weizmann Institute of Science

**Arthur Konnerth**, Munich Technical University

**Peter Riederer**, University Hospital of Wurzburg

**Asya Rolls**, Technion - Israel Institute of Technology

The conference will take place at  
The Israel Academy of Sciences and Humanities,  
43 Jabotinsky St., Jerusalem

The conference will be held in English



הכינוס יתקיים  
בבית האקדמיה הלאומית הישראלית למדעים,  
רחוב ז'בוטינסקי 43, ירושלים

ההרצאות תתקיימנה בשפה האנגלית

With the kind support of



האירוע יתקיים בכפוף להנחיות משרד הבריאות שיהיו בתוקף

הכניסה בהרשמה מראש, ללא תשלום ועל בסיס מקום פנוי | חניה עירונית ברחובות הסמוכים לאקדמיה

The conference will be conducted according to current Health Ministry regulations | Please register in advance  
Admission is free of charge, on the basis of available seating | Paid on-street municipal parking is available in the vicinity of the Academy

Follow the Academy on social media עקבו אחר האקדמיה ברשתות החברתיות

בקרו בתערוכה "בית ועד לחכמים: שישים שנות מדע ודעת" המוצגת בבית האקדמיה | הכניסה חופשית

Visit the exhibition "A Gathering Place of Scholars: 60 Years of Science and Knowledge", now on display at the Israel Academy | Admission is free of charge