

Talks, Teaching, and Public Engagement

(detailed List)

INVITED TALKS AND CONFERENCE PRESENTATIONS

International presentations (>50), selected examples

- ***Sleep regulation, brain development, and the gut microbiome: Interactions of top-down and bottom-up forces***, 2024, Winter Congress in Developmental Psychobiology, O'ahu, HI, USA
- ***The protective power of rest***, 2023, Lecture for Graduate Students and Postdocs, with Panel Discussion, FIT'NG, Series Talk: The "elephant in the room", Department of Psychiatry, Washington University in St. Louis, USA (online)
- **Ontogenetic sleep matters – new insights into the sleep-brain-gut connection**, 2023, Scientific lecture in Current Topics in Sleep & Circadian Health, Chronobiology & Health, Technical University Munich, and the Max Planck Institute for Biological Cybernetics, Tübingen, DE
- ***Die Reifung der Schlaf-Darm-Achse im Säuglingsalter, und Verbindungen zur Verhaltensentwicklung***, 2022, 30. Jahrestagung der Österreichischen Gesellschaft für Schlafmedizin und Schlafforschung, Wien, AT
- ***Maturation of sleep-gut microbiome dynamics in infancy and links to behavioral development***, 2022, Congress of the European Sleep Research Society (ESRS), Athens, GR
- ***Sleep to grow a healthy brain, with support of the gut microbiome***, 2022, FLUX Congress, Paris, FR
- ***Which are the central aspects of infant sleep? The dynamics of Sleep Composites across infancy, and From Alpha Diversity to ZZZ: Interactions among sleep, the brain, and gut microbiota in the first year of life***, 2022, Mini Symposium: Sleep & circadian rhythms over the lifespan, University of Salzburg, AT
- ***Infants' sleep neurophysiology beyond the brain: interactions with bedtimes, behavior and the gut microbiome***, 2021, Providence Sleep Research Interest Group Seminar Series, Providence, USA
- ***Slow oscillations in children and their potential as neurodevelopmental marker***, 2020, Congress of the European Sleep Research Society (ESRS), Planned for Sevilla, ES, yet Virtual Conference due to COVID
- ***A sleep EEG marker to assess brain myelin development in children***, 2019, Annual Meeting of the American Academy of Child & Adolescent Psychiatry, Chicago, USA
- ***Sleep and gut bacteria in the early human lifespan: A window of opportunity?*** 2019, Dept. of Psychology, University of Bruxelles, BE
- ***The possibility of a sleep-brain-gut axis***, 2017, Dept. of Food Science, University of Copenhagen, DK
- ***EEG signatures of brain maturation***, 2017, World Sleep Congress, Prague, CZ
- ***Mapping brain connectivity with spatio-temporal patterns of sleep slow oscillations across childhood***, 2016, Congress of the European Sleep Research Society (ESRS), Bologna, IT
- ***Sleep and brain development***, 2015, Colorado Sleep and Circadian Research Symposia (CSCRS), Boulder, USA

- **Neural network dynamics: What can we learn from children's sleep?** Symposium title: **Brain Plasticity and Network Dynamics in Sleep: Moving the Field Forward with Novel Quantitative Tools**, 2015, SLEEP Meeting of the Associated Professional Sleep Societies (APSS), Seattle, US, **Role of Chair**
- **Region-specific response to shortened sleep in childhood: Associations with performance and myelination**, 2015, Annual PNIRS (Psycho-Neuro-Immunology Research Society) Scientific Meeting, Seattle, USA
- **Maturation of EEG neurophysiology: New insights into sleep regulation across childhood**, 2015, Center for Sleep and Consciousness, University of Wisconsin-Madison, USA
- **Sleep and brain development**, 2014, Sleep Medicine Seminar, Dept. of Integrative Physiology, CU Boulder, and Anschutz Medical Campus, Denver, CO, USA
- **Neurodevelopment and sleep regulation in children**, 2014, SLEEP Meeting of the Associated Professional Sleep Societies (APSS), Minneapolis, USA, **Role of Co-chair**
- **Region-specific response to sleep restriction in children: associations with performance and myelination**, 2014, European Sleep Research Society (ESRS), Tallinn, EE, **Receipt of the Young Scientist Award**
- **The developing sleep EEG and clinical context**, 2013, Sleep Training Workshop: New Classification of Sleep and Mental Disorders, Lake Arrowhead, USA
- **Early developmental changes in the temporal dynamics of sleep EEG coherence**, 2013, SLEEP Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, MD, USA
- **Myelin patterns and high-density sleep EEG in preschool children. Investigations of brain maturation and function**, 2013, SLEEP Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, USA
- **Early developmental changes and across-night dynamics in sleep EEG coherence**, 2013, SLEEP Meeting of the Associated Professional Sleep Societies (APSS), Baltimore, USA
- **Local Sleep**, 2013, Guest lecture, Sleep Medicine Seminar, Dept. Integrative Physiology, CU Boulder, USA
- **Sleep electrophysiology – a mirror of brain maturation?** 2012, Neuroscience Seminar, Dept. of Integrative Physiology, CU Boulder, USA
- **The maturation of specific skills is predicted by the topographical distribution for sleep slow wave activity**, 2012, Congress of the European Sleep Research Society (ESRS), Paris, FR
- **Regional sleep physiology and brain development**, 2012, Neuroscience Seminar, Dept. of Integrative Physiology, CU Boulder, USA
- **Brain connectivity and sleep in early childhood**, 2012, Meeting of Determinant of Executive Function and Dysfunction (DEFD), CU Boulder, USA
- **Plasticity and sleep during development**, 2011, Sleep Seminar, Dept. of Integrative Physiology, CU Boulder, USA
- **Sleep EEG topography during childhood: a reflection of cortical maturation?**, 2010, European Sleep Research Society (ESRS) in Lisbon, PT
- **Characteristics of sleep slow-waves in children and adolescents**, 2009, Bradley Sleep Laboratory, Brown University, USA
- **Relationship between sleep pressure and the slope of slow-waves during puberty**, 2008, Congress of the European Sleep Research Society (ESRS) in Glasgow

National presentations (>50), for example

- ***Priming von Schlaf und neurokognitiver Entwicklung durch Darmmikrobiom, mütterlichen Schlaf und familiären Kontext***, 2025, Basel Sleep Symposium “Focus on Psychiatric Sleep Medicine”, Center for Sleep and Chronomedicine of the Basel University Hospitals, Switzerland
- ***Clocks of infant sleep and the role of the gut microbiome***, 2024, Congress Pediatrics Switzerland
- ***Bottom-up drivers of rhythm: a role of gut microbiota in sleep regulation***, 2023, Institutional Seminar, Dept of Psychology, University of Bern
- ***Infant sleep matters: insights into the sleep-brain-gut connection***, 2023, Institutional Seminar, Institute of Food, Nutrition and Health, ETH Zurich, CH
- ***Infant sleep matters: new insights into the sleep-brain-gut connection***, 2022, Basel Seminar Series on Circadian Rhythms and Sleep, UPK Basel
- ***Sleep-wake rhythm development in the (un)born infant: multi-dimensional interactions***, 2022, 1st Research Day on Nutrition, University of Fribourg
- ***Why sleep matters: Connections with the growing brain and the bacterial landscape of the gut***, 2021, Social Neuroscience, Dept of Psychology, University of Bern
- ***Sleep-brain axis in early childhood: what has the gut got to do with it?*** 2021, Centre d'Investigation et de Recherche sur le Sommeil, CHUV, Lausanne, CH
- ***On the search of how sleep regulation develops in the first year of human life: Does the gut microbiome play a role?*** 2020, Symposium of the Genetic Diversity Center, ETH, Zurich
- ***Maturation of sleep rhythm in children: Investigating its function and risks***, 2019, Lunchtime Seminar, Dept of Psychology, University of Fribourg
- ***Sleep regulation in early life – a window of opportunity for development***, 2019, SECMED Neurobiology Seminars, University of Fribourg
- ***Babies, Bedtimes and Bacteria***, 2019, Cheesy Wednesday (for PhD students and Postdocs), University Children's Hospital Zurich
- ***Development of rhythm in the first year: sleep regulation in infants***, 2019, Swiss Society of Sleep Research, Sleep Medicine, and Chronobiology (SSSSC), Fribourg
- ***Babies, bedtimes and bacteria***, 2018, Sleep & Health Zurich, UZH
- ***Increased sleep depth in developing neural networks: new insights from sleep restriction in children***, 2016, Swiss Society of Sleep Research, Sleep Medicine, and Chronobiology (SSSSC), Basel
- ***Sleep and the gut microbiome***, 2016, Retreat of the Clinical Research Priority Program (CRPP) Sleep & Health of the UZH
- ***Developing neural networks: new insights from sleep EEG in children***, 2016, Seminar, Institute of Psychology, UZH
- ***Sleep and neurodevelopment***, 2016, Seminar, Psychological Institute, University of Lausanne, CH
- ***Mapping of Cortical Activity in the First Two Decades of Life: A High-Density Sleep Electroencephalogram Study***, 2010, Sleep Seminar, Institute of Pharmacology and Toxicology, UZH
- ***Measures of cortical maturation***, 2010, Second Research Symposium of the Child Development Center, KISPI
- ***Schlaf EEG – Entwicklungsaspekte [Sleep EEG – Developmental Aspects]***, 2009, Neuroscience seminar, KISPI

- **Mapping cortical maturation by high density EEG during sleep**, 2010, Symposium of the Center for Integrative Human Physiology Zurich (ZIHP), Zurich
- **Mapping of Cortical Activity in the First Two Decades of Life: A High-Density Sleep Electroencephalogram Study**, 2009, Swiss Society of Sleep Research, Sleep Medicine, and Chronobiology (SSSSC), Bern, **Receipt of the Sponsors Award for Outstanding Basic Sleep Research**

TEACHING

Lectures held (since 2017)

- *Upcoming:*
 - Lecturer, **Prenatal origins of development: interactions, mechanisms, and outcomes - A Psychobiological Perspective**; MA students of Psychology (University of Fribourg; Spring 2026)
 - Lecturer, Block course: **Designing research that starts before birth**; MA students of (Neuro)Psychology (UE-L25.02004, University of Fribourg; Spring 2026)
- Lecturer, **Einführung in die Themenbereiche der Psychologie**; BA students of Psychology (UE-L25.00016, University of Fribourg; Fall 2024)
- Lecturer, **Sleep and Cognition**; MA students of Psychology (UE-L25.01478, University of Fribourg; Fall 2024)
- Lecturer, **Entwicklungspsychologie**; BA students of Psychology (UE-L25.01025, University of Fribourg; Spring 2024)
- Lecturer, Block course: **Brain and behavior: methods for measuring sleep**; MA students of (Neuro)Psychology (UE-L25.0159, University of Fribourg; Spring 2023, Spring 2024, Spring 2025)
- Guest Lecturer, Ringvorlesung Brain and Mind: **The Neuroscience of Infant Sleep and the Gut-Brain Axis** [Die Neurowissenschaft des Säuglingsschlafs und die Darm-Hirn Achse]; BA Neuroscience (457443, University of Bern; Spring 2023, Spring 2024, Spring 2025)
- Guest Lecture with Panel Discussion, FIT'NG, Series Talk: The "elephant in the room": **The protective power of rest**; Graduate Students and Postdocs at the Department of Psychiatry (Washington University in St. Louis, USA, Spring 2023)
- Lecturer, Research Colloquium Cognitive Neuroscience I and II, MA students (University of Fribourg; since 2019)
- Lecturer, **Using Actigraphy in Sleep Research**, Block course for MA/BA Biomedicine students (University of Zurich, Faculty of Science; Fall 2017)
- Lecturer, **Sleep & Health Seminar** University of Zurich (SPV0Y040, CRPP/ ZIS/ SHZ; 2017-2023)

Lectures with clinical and translational relevance

- Guest Lecture, Current Topics in Sleep & Circadian Health: **Ontogenetic sleep matters – new insights into the sleep-brain-gut connection**, MA Health Science – Prevention and Health Promotion program (Chronobiology & Health, Technical University Munich; 2023)
- Guest Lecturer, Microbiome and Psychopathology: Emerging Themes and Interventions in Clinical and Health Psychology [**Microbiome and psychopathology**; *Thèmes émergents et interventions en psychologie clinique et de la santé*]; MA students of Clinical Psychology (University of Fribourg; Spring 2022)
- Guest Lecturer, Obstetrics Symposium, The Microbiome - Fascinating Organism, What Does It Have to Do with Obstetrics?: **The Crying Baby: Do Sleep and Gut Flora Have an Impact?** [Geburtshilfliches Symposium, „Das Mikrobiom - Faszinierender Organismus Was

hat das mit Geburtshilfe zu tun?": Das Schreibaby: Haben Schlaf und Darmflora einen Einfluss?], 2018, Frauenklinik Stadtspital Triemli Zürich

- **Guest Speaker: *The gut-brain-sleep axis – how can we digest it?***, 2017, Retreat of the Child Development Center, University Children Hospital Zurich

Continued education

- **Speaker, *Schlaf und Schlafprobleme – was die Wissenschaft dazu sagt***, 2025, Seniorenbildung Männedorf
- **Speaker, *News from Sleep Research [Neues aus der Schlafforschung]***, 2024, congress of 1001 Kindernacht
- **Organizer, and Lecturer, co-lead with Prof. Björn Rasch: *Sleep better again? Introduction to the science of sleep and its application for improving sleep? [Wieder besser schlafen können? Einführung in die Wissenschaft des Schlafs und deren Anwendung für die Verbesserung des Schlafs]***, since 2023, Continued education for professionals and clients, University of Fribourg
- **Organizer, and Lecturer, co-lead with Gabriela von Arx: *Mindful Sleep [Ein achtsamer Weg zum Schlaf]***, since 2022, evening, day and multi-day workshops (various locations)
- **Guest Lecturer, Fundamentals: *Sleep in Children. Current Research [Grundlagen: Schlaf bei Kindern. Aktuelle Forschung]***, 2018, Weiterbildung Kind und Schlaf, Schweizerischen Fachverband für Neurophysiologische Diagnostik SFND

Organisation

- **Co-Chair and Co-Organizer, *Sleep and Health Symposium 2020***, 2020, Center of Competence Sleep & Health Zurich, University of Zurich, CH

SCIENCE DISSEMINATION AND OUTREACH

Oral Presentations, selected examples

- **Input Talk and Panel Discussion, *Der Einfluss des Schlafes auf die kindliche Entwicklung***, 2024, Education Familiale/ Verein Familienbegleitung, a public event, Forum Düringen, CH
- **Input Talk and Seminar, *Sleep science and my personal sleep***, 2024-, Occupational Health Management, Industrial Clients, CH
- **2 Input Talks, *Sleep redefined***, 2024, IKEA Zurich Design Weeks, Photobastei Zurich, CH
- **Pint of Science, *A dream team: sleep and bacteria of the digestive tract***, 2022, Voltabrau, Basel; and *Babies, Bedtimes and Bacteria*, 2019, Oliver Twist Pub, Zurich, CH
- **Symposium, *Ask the professors: Things I've always wanted to know***, 2020, "BrainStorm", Brain plasticity in children at risk for neurodevelopmental impairments, University Children's Hospital Zurich, CH
- **Input Talk and Panel Discussion, *Schlaf bei Kindern - ein Fenster mit Einblick in die Entwicklung***, 2019, BrainFair Zürich - Schlaf und Ernährung, Diskussionsforum, Universität Zürich, CH
- **Further Education, *Grundlagen: Schlaf bei Kindern. Aktuelle Forschung***, 2018, Weiterbildung Kind und Schlaf, Schweizerischen Fachverband für Neurophysiologische Diagnostik SFND, CH
- **Further Education, *Das Schreibaby: Haben Schlaf und Darmflora einen Einfluss?***, 2018, Geburtshilfliches Symposium, „Das Mikrobiom - Faszinierender Organismus Was hat das mit Geburtshilfe zu tun?“, Frauenklinik Stadtspital Triemli Zürich, CH
- **Input Talk, *Sleep – the “off-state” of our brains?***, 2018, Project 325 – interfaces and beyond, a trans-disciplinary retreat, Wartburg, CH

- **Panel Discussion**, *Schlaf, Gesundheit und Gesellschaft*, 2018, Sleep & Health Zurich, Moderation Stefan Klapproth, a public event, University of Zurich, CH
- Repeated contributions at Neonatology Seminar, USZ, 2016-2018
- **Classroom Visits USA**, CU Boulder, USA, 2012-2016, kindergarten, international pre-college, teaching neuroscience, sleep, research tools and research activities, USA
- **Education Programs**, UZH, "Brain Fair", multiple lectures to high school students (2011, 2017); educational public research events, "Scientifica" (2011), "Nacht der Forschung" (2009), and "Parcours des Wissens" (2008), CH
- **Classroom Visits**, since 2008, UZH, elementary and high school, teaching neuroscience, sleep, research tools and research activities, CH
- **Sleep Research Workshops**, since 2007, KISPI, UZH, CU Boulder, USA, organization and teaching, college and high-school students, CH and USA

OTHER CONTRIBUTIONS: SCIENCE, INNOVATION AND EDUCATION

- **Expert board**, Netzwerk Schlaf, a national network to enhance sleep and health awareness in Switzerland, Gesundheitsförderung Schweiz (2024-)
- **Co-founder** of *Digital Science Café*, an interdisciplinary peer network of academic leadership (2020-)
- **Management board**, Center of Competence Sleep & Health Zurich (2018-2023)
- **Co-founder** of Women in Science for promotion and networking of young female scientists (2016-2018)
- **Co-Founder**, The New Sleep Research Generation, a platform to extend and strengthen the network within and around academia (2018)