# **PERSONAL DETAILS**

# Leila Tarokh, PhD

Bolligenstrasse 111, Haus A

CH-3000 Bern 60

Email: leila.tarokh@upd.unibe.ch

# **EDUCATION**

June 2000 University of California, San Diego, United States

**Bachelors in Biological Psychology** 

Honors Thesis: "Cognitive Deficits in Female Victims of Domestic Violence with Post

Traumatic Stress Disorder"

Supervisor: Prof. Murray Stein, MDUniversity of California, Irvine, United States

Sept 2003 University of California, Irvine, United States

**Masters in Cognitive Neuroscience** 

Thesis: "EEG Oscillations Induced by Contour Closure in a Noisy Visual Field "

Supervisor: Prof. Ramesh Srinivasan, PhD

March 2006 PhD in Cognitive Neuroscience

Thesis: "MEG and EEG correlates of Perceptual Dominance Induced by a Salient Stimuli"

Supervisor: Prof. Ramesh Srinivasan, PhD

# POSTGRADUATE EDUCATION

2006-2009 Postdoctoral Fellow

T32 AA07459, Center for Alcohol and Addition Studies

Alpert Medical School of Brown University

# MAJOR CLINICAL AND SCIENTIFIC WORK EXPERIENCE

Since 01/2022	Translational Research Center, University Hospital of Psychiatry and Psychotherapy, University of Bern, 3000 Bern, Switzerland Head of Sleep Research Laboratory
Since 04/2021	Translational Research Center, University Hospital of Psychiatry and Psychotherapy, University of Bern, 3000 Bern, Switzerland Senior Scientist and Group Leader
03/2016 – 09/2017	University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern Interim Deputy Head
Since 09/2013	University Hospital of Child and Adolescent Psychiatry and Psychotherapy, University of Bern Senior Scientist and Group Leader
06/2011 – 07/2017	Department of Psychiatry and Human Behavior, Alpert Medical School of Brown University, Brown University  Adjunct Assistant Professor (Research)
10/2009 - 08/2013	Chronobiology and Sleep Research, Institute of Pharmacology and Toxicology, University of Zurich Senior Scientist
09/2009 - 05/2011	Department of Psychiatry and Human Behavior, Alpert Medical School of Brown University, Brown University Instructor (Research)

10/2008 - 01/2009	Chronobiology and Sleep Research, Institute of Pharmacology and Toxicology, University of Zurich  Visiting Scholar
09/1998 - 06/2000	Department of Psychiatry, University of California, San Diego Research Assistant

#### **GRANTS AND MAIN RESEARCH PROJECTS**

- National Institute of Mental Health, R01 MH076969. Intrinsic Circadian Period: Development, Delayed Phase, and Genetic Associations. MA Carskadon, Pl. Dates of entire project: March 2008 to February 2013. Role: Consultant Amount: \$2,162,882.
- National Institute of Mental Health, R01 MH079179. Prospective Study of Depressed Mood: Short Sleep and Serotonergic Genes. MA Carskadon, Pl. Dates of entire project: December 2008 to November 2013. Role: Consultant Amount: \$2,148,945
- Jacobs Foundation Grant. Sleeping Twins: The genetics of sleep and cortical development in adolescence. L Tarokh, Pl. Dates of Project: January 2014 – 2016. Role: Principal Investigator Amount: 40,000 CHF
- Interfaculty Research Cooperation, University of Bern, Sleep subtypes in adolescent depression: Sleep physiology and treatment. L Tarokh, Pl. Dates of Project Dec 2017-December 2020. Role: Principal Investigator Amount: 229,200 CHF
- Swiss National Science Foundation, Sleep Neurophysiology: A Window onto Adolescent Mental Health, L Tarokh, Pl. Dates of Project: April 2020- May 2023. Role: Principal Investigator. Amount: 702,436 CHF
- National Institute of Mental Health, Mechanisms of Depression and Anhedonia in Adolescents and Young Adults: Linking Sleep Duration and Timing to Reward- and Stress-Related Brain Function (MoDA), M Casement, Pl. April 2022 – March 2025.
   Role: Consultant

Amount: \$3'094'364

 National Institute on Alcohol Abuse and Alcoholism, Mechanisms of Risky Alcohol Use in Young Adults: Linking Sleep Duration and Timing to Reward- and Stress-Related Brain Function (MoRA), M Casement, Pl. Total direct costs: April 2022 – March 2025. Role: Consultant

Amount: 3'505'183

#### **AWARDS**

2002/2003	Social Science Summer Grant, University of California, Irvine
2004	Jack Yellot Scholar Award, University of California, Irvine
2004	Conference Travel and Research Award, University of California, Irvine
2005	Social Sciences Dissertation Fellowship, University of California
2005	Outstanding Teaching Assistant Award, University of California, Irvine
2015	Distinguished Researcher, University of South Australia, Adelaide, Australia
2018	Residential Fellow, Institute of Advanced Studies, Warwick University, England
2019	Poster Prize to PhD Student, Fontanellaz-Castiglione, Clinical Neuroscience Bern

## **PUBLICATION INDICES**

#### PEER-REVIEWED RESEARCH ARTICLES

- 1 Kennedy, C., **Tarokh, L**., and Stein, M. (2001) Cognitive Difficulties and Posttraumatic Stress Disorder in Female Victims of Intimate Partner Violence. *CNS Spectrums*, 6: pp. 787 792.
- 2 **Tarokh, L.** (2009) EEG Oscillations Induced by Contour Closure in a Noisy Visual Field. *Behavioral Brain Research*, 196: 55 62.
- Tarokh, L., and Carskadon, M.A. (2010) Sleep Electroencephalogram in Children with a Parental History of Alcohol Abuse/Dependence. *Journal of Sleep Research*, 19: 165 174.
- 4 Tarokh, L., and Carskadon, M.A. (2010) Developmental Changes in the Human Sleep EEG During Early Adolescence. Sleep, 33: 801 – 809.
- 5 **Tarokh, L.,** Carskadon, M.A., and Achermann, P. (2010) Developmental Changes in Brain Connectivity Assessed Using the Sleep EEG. *Neuroscience*, 171: 622 63.
- 6 Tarokh, L. and Carskadon, M.A. (2010) EEG Delta Power Decline Can Begin Before the Age of 11: A Reply to Campbell and Feinberg. Sleep, 33: 738.
- 7 Van Reen, E., **Tarokh, L.,** Rupp, T., Seifer, R., and Carskadon, M.A. (2011) Does Timing of Alcohol Administration Affect Sleep, 34(2): 195 205.
- Tarokh, L., Carskadon, M.A., and Achermann, P. (2011) Trait-Like Characteristics in the Sleep EEG Across Adolescent Development. *Journal of Neuroscience*, 31(17):6371 6378.
  - Press Release: http://news.brown.edu/pressreleases/2011/04/sleep
  - Voice of America: http://blogs.voanews.com/science-world/2011/05/13/are-brainwaves-as-unique-as-fingerprints/
- Tarokh, L., Van Reen, E., LeBourgeois, M., Seifer, R., and Carskadon, M.A. (2011) Sleep EEG Provides Evidence that Cortical Changes Persist into Late Adolescence. *Sleep*, 34(10): 1385-93.
  - Press Release: http://www.medicalnewstoday.com/releases/224
  - Comment in: Colrain, I.M. and Baker F.C. Sleep EEG, the clearest window through which to view the adolescent brain. *Sleep*. 34 (10): 1287-8.
- Tarokh, L., Van Reen, E., Acebo C.A., LeBourgeois, M., Seifer, R., Fallone, G. and Carskadon, M.A. (2012) Adolescence & Parental Alcohol History: Insights from the Sleep EEG. Alcoholism: Clinical and Experimental Research, 36(9): 1530-41.
  - Comment in: Colrain, I.M. and Baker, F.C. Sleep EEG as a Potential Marker of Alcoholism Predisposition Commentary on "Adolescence and Parental History of Alcoholism: Insights from the Sleep EEG". *Alcoholism: Clinical and Experimental Research.* 36(9): 1477-8.
- 11 Dallmann, R., Viola, A.U., **Tarokh, L.**, Cajochen, C., Brown, S.A. (2012) The Human Circadian Metabolome. *Proceedings of the National Academy of Sciences*, 109(7): 2625-9.
- 12 **Tarokh, L.,** Carskadon, M.A., and Achermann, P. (2012) Dissipation of Sleep Pressure is Stable Across Adolescence. *Neuroscience*. 216: 167-77.
- 13 **Tarokh, L\***, Benz, D.C.\*, Achermann, P., Loughran, S.P. (2013) Regional differences in trait-like characteristics of the waking EEG in early adolescence. *BMC Neuroscience*, 14: 117. \*Shared first authorship.
- 14 Stadelmann, K, Latshang, T.D., **Tarokh, L.,** Lo Cascio, C. M., Tesler, N., Stoewhas, A.C., Kohler, M., Bloch, K. E., Huber, R., Achermann, P. (2014) Sleep respiratory disturbances and arousals at moderate altitude have overlapping EEG spectral signatures. *Journal of Sleep Research*, 23(4): 436-8.
- 15 Stadelmann K, Latshang T.D., Nussbaumer-Ochsner Y., **Tarokh L**., Ulrich S., Kohler M., Bloch K.E., **and** Achermann P. **(2014)** Impact of Acetazolamide and CPAP on Cortical Activity in Obstructive Sleep Apnea Patients. *PLoS One*, 9(4): e93931.

- 16 Tarokh, L., Carskadon, M.A., Achermann, P. (2014) Early adolescent cognitive gains are marked by increased sleep EEG coherence. PLoS One, 9(9):e106847.
- 17 Martinez-Lozano Sinues, P., **Tarokh, L.,** Li, X., Kohler, M., Brown, S.A. Zenob, R. & Dallmann, R. (2014) Circadian variation of the human metabolome captured by real-time breath analysis. *PLoS One*, 9(12): e114422.
- 18 Crowley, S.J., Van Reen, E., LeBourgeois, MK, Acebo, C, **Tarokh, L**, Seifer, R, Barker, D, and Carskadon, M.A. (2014) A longitudinal assessment of sleep timing, circadian phase, and phase angle of entrainment across human adolescence. *PLoS One*, 9(11):e112199.
- 19 **Tarokh, L.**, Hamann, C., and Schimmelmann, B.G. (2014) Editorial. Sleep in Child and Adolescent Psychiatry: Overlooked and underappreciated. *European Journal of Child and Adolescent Psychiatry*. 23(6): 369-72.
- 20 Tarokh, L. and Achermann, P. (2014) Human Sleep and its Regulation. Kosmos, 63(2): 173-180.
- 21 Carskadon, M.A., and **Tarokh, L.** (2016) How Developmental Changes in Sleep Biology may Affect Adolescent Behavior. *Nutrition Reviews*, 72 Suppl 1:60-4.
- 22 Tarokh, L., Rusterholz, T., Achermann, P., Van Dongen, H. (2016) The Spectrum of the Non-Rapid Eye Movement Sleep EEG Following Total Sleep Deprivation is Trait-Like. *Journal of Sleep Research*. 24(4): 360-3.
- 23 Hamann, C., Schultze-Lutter, F., and **Tarokh, L**. (2016) Online Assessment of Mental Well-Being in Early Adolescents: A Reliability Study. *Journal of Medical Internet Research*. 18(6): e138.
- 24 Achermann, P., Rusterholz, T., Dürr. R., König, T., and Tarokh, L. (2016) Global Field Synchronization Reveals Rapid Eye Movement Sleep As Most Synchronized Brain State in the Human EEG. Royal Society Open Science. 3(10):160201.
- 25 Tarokh, L., Saletin, J., and Carskadon, M.A. (2016) Sleep in adolescence: physiology, cognition, and mental health. *Neuroscience and Biobehavioral Reviews*. 70: 182-188.
- 26 Rusterholz, T., **Tarokh, L.**, Van Dongen, H., and Achermann, P. (2017) Inter-individual differences in the dynamics of the homeostatic process are trait-like and distinct for sleep versus wakefulness. *Journal of Sleep Research*. 26(2): 171-178.
- 27 Rusterholz, T., Achermann, P., Dürr, R., Koenig, T., and Tarokh, L (2017) Global field Synchronization in gamma range of the sleep EEG tracks sleep depth: Artifacts introduced by a rectangular analysis window. Journal of Neuroscience Methods. 284:21-26.
- 28 Bersagliere, A., Pascual-Marqui, R., **Tarokh, L.**, and Achermann, P. (2017) Mapping slow waves by EEG topography and source localization: effects of sleep deprivation. *Brain Topography*. 31(2):257-269.
- 29 Inderkum, A., and Tarokh, L (2018) High Heritability of Sleep-Wake Behavior on Free but not School Days: A Long-Term Twin Study. Sleep. 41(3).
- 30 Markovic, A., Rusterholz, T., and Tarokh, L. (2018) Heritability of topographic distribution of sleep EEG power in early adolescents. *Nature: Scientific Reports*. 8(1):7334.
- 31 Mariani, S., Tarokh, L., Djonlagic, I., Cade, B.E., Morrical, M., Yffee, K., Stone, K.L., Loparo, K.A., Purcell, S., Redline, S., and Aeschbach, D. (2018) Evaluation of an Automated Pipeline for Large Scale EEG Spectral Analysis: The National Sleep Research Resource. Sleep Medicine. 47: 126-36.
- 32 Crowley, S.J., Wolfson, A.R., **Tarokh, L.**, and Carskadon, M.A. (2018) An update on Adolescent Sleep: New Evidence Informing the Perfect Storm Model. *Journal of Adolescence*. 67:66-65.
- 33 Rusterholz, T.\*, Hamann, C.\*, Markovic, A., Achermann, P., Schmidt, S., and **Tarokh, L** (2018). Nature and Nurture: Brain region specific inheritance of sleep neurophysiology in adolescence. *Journal of Neuroscience*. \*Shared first authorship.
  - Selected for Journal Press Release and Research Roundup: http://neuronline.sfn.org/Articles/Scientific-Research/2018/October-2018-Research-Roundup

- 34 Hamann, C., Studer, M., Kaess, M., and Tarokh, L (2019) Association between sleep neurophysiology and depressive symptoms in early adolescence. *Journal of Child Psychology and Psychiatry.*
- 35 **Tarokh, L.,** Short, M., Crowley, S.J., Fontanellaz-Castiglione, C.E.G, and Carskadon, M.A. (2020) Sleep and Circadian Rhythms in Adolescence. *Current Sleep Medicine Reports*.
- 36 Fontanellaz-Castiglione, C.E.G, Markovic, A., and **Tarokh, L** (2020) Sleep and the adolescent brain. *Current Opinions in Physiology.* 15: 167-71.
- 37 Markovic, A., Buckley, A., Driver, D., Dillard-Broadnax, D., Gochman, P., Hoedlemoser, K., Rapoport, J.\*, and **Tarokh**, **L**\* (2020) Sleep Neurophysiology in Childhood Onset Schizophrenia. *Journal of Sleep Research*. \*Shared senior authorship.
- Markovic, A., Kaess, M., and **Tarokh, L**. (2020) Environmental factors shape sleep EEG connectivity during early adolescence. *Cerebral Cortex*. 30(11): 5780-91.
- 39 Markovic, A., Kaess, M., and **Tarokh, L.** (2020) Gender differences in adolescent sleep neurophysiology: a high-density sleep EEG study. *Nature: Scientific Reports*.
- 40 Markovic, A., Buckley, A., Driver, D., Dillard-Broadnax, D., Gochman, P., Hoedlemoser, K., Rapoport, J.\*, and Tarokh, L\* (2020) Sleep spindle activity in childhood onset schizophrenia: Diminished and associated with clinical symptoms. Schizophrenia Research. \*Shared senior authorship.
- 41 **Tarokh, L.**, Achermann, P., and Carskadon M.A., (2021) Naps not as effective as a night of sleep at dissipating sleep pressure. *Journal of Sleep Research*.
- 42 Tarokh, L (2021) Dispatch Sleep: Twitch in Tempo. Current Biology.
- 43 Tarokh, L. and Vyazovskiy V.V. (2021) Too sleepy for school: is sleep in teenagers homeostatically regulated under chronic sleep restriction? SLEEP.
- 44 Studler, M., Gianotti, L.R.R., Koch, K., Hausfeld, J., **Tarokh, L.**, Maric A., and Knoch, D. (2022) Local slow wave activity in regular sleep reveals individual risk preferences. *Neuroimage*.
- 45 Fontanellaz-Castiglione, C., Timmers, T., Kaess, M., and **Tarokh, L.** (2022) Steps to a good nights sleep: Association between physical activity and sleep in adolescence. *BMC Public Health*

### **CONTRIBUTIONS TO BOOKS**

- Tarokh, L. (2012) Encyclopedia of Sleep and Dreams. In D. Barrett and P. McNamara (Eds.) Sleep EEG Across Adolescent Development. ABC-CLIO.
- 2. Tarokh, L. (2012) Book Review: Neuroimaging in Addiction. Acta Psychiatrica Scandinavica. 126(3): 230.
- 3. **Tarokh, L.** and Achermann, P. (2014) Encyclopedia of Sleep. In C. Kushida (Ed.) Sleep Homeostasis. Academic Press.
- 4. Carskadon, M.A. and **Tarokh, L.** (2014) Developmental changes in circadian timing and sleep: Adolescence and emerging adulthood. In Wolfson, A., and Montgomery-Downs, H. (Eds.) The Oxford Handbook of Infant, Child, and Adolescent Sleep: Development and Problems. Oxford University Press.
- 5. Crowley, S., **Tarokh, L.,** and Carskadon, M.A. (2014) Sleep during adolescence. In Sheldon, S.H., Ferber, R., and Kryger, M.H. Principle and practice of pediatric sleep medicine. Elsevier.
- Achermann, P., Tarokh, L, and Peigneux, P. (2014) Research Design and Quantitative Methods. Sleep Medicine Textbook.
- 7. Simeone, K., Johnson, C., Samson, K., Roundtree, H., Simeone, T., **Tarokh, L.** (2016) Sleep. In Boison, D., and Masino, S. (Eds.) Homeostatic Control of Brain Function. Oxford University Press.
- 8. Achermann, P., **Tarokh, L,** and Peigneux, P. (In Press) Research Design and Quantitative Methods. Sleep Medicine Textbook, Volume 2.

# **MANUSCRIPTS UNDER REVIEW**

1. Markovic, A, Kaess, M and Tarokh, L (Under Revision) Heritability of REM Sleep. Translational Psychiatry

# **MEMBERSHIP IN BOARDS AND PANELS**

2008	Admission Committee Member, William C. Dement Summer Behavioral Sciences Research Apprenticeship, EP Bradley Sleep Research Laboratory, Providence, USA
2008-09	Member, Sleep Research Society Trainee Subcommittee, Associated Professional Sleep Societies, USA
Since 2017	Editorial board member, Sleep Spindles and Cortical Up States
Since 2018	Review board editor, Sleep and Circadian Rhythms of Frontiers in Neuroscience
Since 2018	Section editor, Sleep and Development, Current Sleep Medicine Reports
Since 2020	Associate editor, SLEEP Advances
Since 2020	Editorial board member, British Journal of Psychiatry
Since 2022	Associate editor, Sleep and Circadian Rhythms of Frontiers in Neuroscience

# AD HOC REVIEWER ROLES (SELECTED)

Nature Protocols
Acta Psychiatrica Scandinavica
SLEEP
Journal of Sleep Research
Neuroimage
Neurobiology of Aging
Journal of Adolescence
Journal of Adolescent Health
Sleep Medicine

Sleep Medicine Addiction

Computer Meth and Progr in Biomedicine International Journal of Psychophysiology

Psychiatry Research

PLoS One Neuroscience

Behavioral Sleep Medicine

Journal of Experimental Child Psychiatry

European Respiratory Journal

European Journal of Neuroscience

Developmental Science Brain Imaging and Behavior

Alcoholism: Clinical and Experimental Research

**Cerebral Cortex** 

Translational Psychiatry

Current Biology

SLEEP Advances

British Journal of Psychiatry

**Biological Psychiatry** 

eLife

The Lancet: Child and Adolescent Health

**Grant Reviewer**, Medical Research Council (MRC), Neuroscience and Mental Health, United Kingdom, July 2019

Grant Reviewer, Education Research Funding Programme (ERFP), Singapore, December 2020

**Subject Matter Expert**, Medical Research Council (MRC), Adolescent, Mental Health and the Developing Mind, January 2021

Abstract Reviewer, European Sleep Research Society (ESRS), May 2022

Key Opinion Leader, Wellcome Trust, May 2022

# **TEACHING AND SUPERVISION**

Sept 2000 – June 2006	Teaching Assistant, Department of Cognitive Sciences, University of California, Irvine Courses: Small Group Behaviors, Sociology of Violence, Intro to Social Psychology, Experimental Psychology, Personality Theory, Psychological Anthropology, Theory of Motivation, Introduction to Psychology, Honors Advanced Experimental Psychology, Honors Research/Experimental Psychology, Introduction to Socio-cultural Anthropology
July – August 2006	Lecturer, Designed and taught <i>PSYCH 121: The Psychology of Sleep and Dreaming</i> , Department of Cognitive Sciences, University of California, Irvine
June – July 2008	Lecturer, Designed and taught PY908-2A: Psychology of Sleep and Dreaming, Summer Studies, Brown University
April 2010/April 2012	Designed and Co-taught, <i>Bio328 Neurobiology</i> , Department of Biology, University of Zurich, Switzerland
Sept 2011	Designed and Co-taught, <i>An Introduction to Scientific Writing</i> , Institute of Pharmacology and Toxicology, University of Zurich, Switzerland.
April 2013	Designed and co-taught <i>Bio 326 Experimental Biology</i> , Department of Biology, University of Zurich, Zurich, Switzerland.
February 2015	Guest Lecture, BENEFRI: From basic science to clinics: Methods in Neuroscience, Department of Physiology, Universities of Bern and Fribourg, Bern, Switzerland.
2014-2019/2021	Guest Lecture, EEG Block Course, Institute of Psychology, University of Bern, Bern, Switzerland
2017 - 2021	Workshop, <i>Sleep in Child and Adolescent Psychiatry</i> , University Hospital of Child and Adolescent Psychiatry and Psychotherapy, Bern, Switzerland
Feb – June 2020	Instructor, <i>Neuroscience of Sleep</i> , Spring Semester, Institute of Psychology, University of Bern, Bern, Switzerland
June 2020	Guest lecture, <i>Mini-symposium on Sleep over the Lifespan</i> , Center for Cognitive Science, University of Salzburg, Salzburg, Austria
Nov 2020	Guest lecture, Sleep Disorders in Childhood and Adolescence, Institute of Psychology, University of Bern, Bern, Switzerland
Fall Semester 2020/2021	Instructor, Neuroscience of Sleep, Institute of Psychology, University of Bern, Bern, Switzerland
October 2021	Guest lecture, Sleep EEG, Lab Course Neuroscience, Institute of Psychology, University of Bern, Bern, Switzerland
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# Supervision of Junior Researchers

March 2022

Supervision of Junior R	esearcners
Nov. 2013 – 2015	Daniela Rupp, BSc., Masters Thesis
Jan. 2014 – 2016	Christoph Hamann, M.D., Postdoctoral Medical Fellow (50% position)
June 2015 – 2017	Thomas Rusterholz, PhD, Postdoctoral Fellow (30% position)
Sept. 2016 – 2017	Andrea Inderkum, Masters Student
Nov 2016 – 2018	Tammy Timmers, Masters Student
Sept 2018 – 2019	Samira Schaufler, Masters Student
Sept 2018 – 2019	Anna Clavi, Masters Student
Sept. 2016 – 2020	Andjela Markovic, MSc., PhD Student, "Sleep, Development and Psychiatry: Insights
	Gained from Quantitative EEG Analyses", Graduate School of Health, University of
	Bern
Sept. 2018 – Present	Chiara Fontanellaz-Castiglione, MSc., PhD Student, "Sleep Neurophysiology in
	Adolescent Depression", Institute of Psychology, University of Bern
April 2019 – 2021	Vanessa Salvatore, Masters Student
Sept 2019 - 2021	Gaelle Haas, Masters Student
June 2020 – 2021	Jasmina Rogic, Masters Student
June 2020 – 2021	Sarah Schmidt, Masters Student
May 2019 - Present	Avelina Husser, Masters Student
May 2020 - Present	Alessia Maggetti, Medical Doctoral Student

Psychology, University of Bern, Bern, Switzerland

Guest lecture, Sleep Disorders in Childhood and Adolescence, Institute of

Dec 2020 - Present  Jan 2022 - Present	Salome Wild, PhD Student, "Sleep neurophysiology as a window onto adolescent mental health", Graduate School of Health, University of Bern Seyedeh Sharareh Mirzargar, Masters Student, Co-supervised with Prof Paolo Favaro
Thesis Committees 05/2022	Sarah Diezig, Extrnal Committee Member, Second Year Exam, Graduate School of Health

PROFESSIONAL MEMBERSHIPS	
Since 2001	Member, Society for Neuroscience
Since 2006	Member, Society for Sleep Research
Since 2008	Member, American Association for the Advancement of Science (AAAS)
Since 2018	Group Leader, Clinical Neuroscience Bern
ORGANIZAT	TION OF CONFERENCES
06/2008	Symposium Organizer, "Sleep EEG in Youth: What Can it Tell Us about Development, Depression, and Parental Alcohol History?" Associated Professional Sleep Societies, Baltimore, USA.
06/2011	Symposium Organizer, "Adolescents Asleep: A Window on the Developing Brain" Associated Professional Sleep Societies, Minneapolis, USA.
06/2011	Invited Chair, "Age-Related Differences in Sleep Quantity and Quality", Associated Professional Sleep Societies, Minneapolis, USA. June 2011.
06/2013	Symposium Organizer and Chair, "Sleep, Brain Development and Psychiatric Disorders" Associated Professional Sleep Societies, Baltimore, USA. June 2013.
06/2014	Invited Chair, "Development, Aging and the Sleeping Brain", Associated Professional Sleep Societies, Minneapolis, USA. June 2014.
07/2017	Co-Chair, "Asleep or awake - What does the sleeping brain tell us about maturation, learning and psychopathology?", European Society for Child and Adolescent Psychiatry, Geneva, Switzerland, July 2017.
06/2017	Chair, "Electroencephalogram as Biomarker", National Institute of Mental Health, Bethesda, USA, September 2017.
08/2018	Co-Chair, "New Methods in Basic and Clinical Research", 24th Congress of the European Sleep Research Societies, Basel, Switzerland, September 2018.
03/2019	Chair, "Psychiatry and Cognition", Sleep Science Winter School, Wengen, Switzerland
09/2019	Organizer and Co-Chair, "Die Rolle des Schlafs in der Kinder- und Jugendpsychiatrie (The Role of Sleep in Child and Adolescent Psychiatry)", PSY-Kongress, Bern, Switzerland
09/2020	Co-chair, "Einfach mal Abschalten – Herausforderung Schlafstörungen im Kindes- und Jugendalter (Time to switch off: Challenges of sleep disturbances in children and adolescents)", Kongress der Schweizerischen Gesellschaft für Kinder- und Jugendpsychiatrie und - psychotherapie (SGKJPP), Virtual Conference

09/2020	Co-chair, A sensitive system under fire? Identifying sleep-wake-regulatory risk factors for the development of mental disorders during adolescence, European Sleep Research Society, Virtual Conference
09/2021	Program Committee Member, 11th Biennial Pediatric Sleep Medicine, Virtual Conference
06/2022	Organizer and Chair, Associated Sleep Professional Societies, Too little, too late: Consequences of Sleep Restriction During Adolescence, Charlotte, USA

# ORAL CONTRIBUTIONS TO NATIONAL AND INTERANATIONAL CONFERENCES

- 1. International Pediatric Sleep Association (2012) *Symposium Presentation*, Manchester, UK: "Brain development and cognitive function in adolescents: Insights from longitudinal assessment of the sleep EEG", October 2012
- Associated Professional Sleep Societies (2013) Symposium Presentation, Baltimore, USA: "The
  developmental trajectory of the sleep EEG in adolescents with and without a parental history of alcoholism",
  June 2013.
- 3. Department of Psychology, University of Salzburg (2014) Salzburg, Austria, *Invited Colloquium Presentation* "Sleep and its Regulation in Adolescence", January 2014.
- European Sleep Research Society (2016) Symposium Presentation, Bologna, IT, C. Hamann, T.
   Rusterholz, R. O'Gormann, D. Rupp, and Tarokh, L "Sleep Spindles in Early Adolescence: Associations with Depression and Thalamic Glutamate/Glutamine", September 2016
- 5. World Sleep, (2017) *Symposium Presentation,* Prague, CZ, "Sleep and cognition in Early Adolescence: Results from a Twin Study", October 2017
- 6. European Society for Child and Adolescent Psychiatry (2017) *Symposium Presentation*, Geneva, CH, "Characteristics of the sleeping and waking EEG during adolescence", July 2017
- Electrophysiologic Sleep Phenotyping Project Workshop, National Institute of Mental Health (2017)
   Symposium Presentation, Bethesda, USA, "Approach to Neurophysiological Sleep Metrics", September 2017
- 8. Sleep Health Zurich (2018) *Symposium Presentation*, Zurich, Switzerland, "Heritability of Sleep in Adolescents", February 2018
- 9. European Sleep Research Society (2018) *Symposium Presentation*, Basel, Switzerland, "Mid-career Academia: Opportunities and Challenges"
- 10. Sleep Science Winter School (2019) *Symposium Presentation*, Wengen, Switzerland, "Heritability of Sleep in Adolescence: Implications for Psychiatry"
- 11. PSY-Kongress (2019) *Symposium Presentation*, Bern, Switzerland, "Sleep Neurophysiology in Childhood onset Schizophrenia"
- 12. PSY-Kongress (2020) Symposium Presentation, Virtual Meeting, "Sleepy Adolescents"
- 13. European Sleep Research Society (2020) *Symposium Presentation*, Virtual Meeting, "Inter-individual Differences in Sleep: Implications for Adolescent Mental Health"
- 14. Annual conference of the Clinical Neuroscience (2020) *Symposium Presentation*, Virtual Meeting, "Sleep and Development"

- 15. Providence Sleep Interest Group (PSRIG; 2020) *Invited Speaker*, Virtual Meeting, "Inter-individual differences in sleep neurophysiology: Genetic and environmental influences"
- 16. 11 minutes of Sleep (2021) *Symposium Presentation*, Virtual Meeting (Pisa, Italy), "Sleep and the Adolescent Brain"
- 17. Center for Chronobiology (2021) *Invited Speaker*, Virtual Meeting (Basel, Switzerland), "Sleep regulation and neurophysiology in adolescence: Implications for mental health"
- 18. 25<sup>th</sup> Bern Sleep-Wake Symposium (2021) *Symposium Presentation*, Bern, Switzerland. "Sleep in Adolescents with Major Depressive Disorder"
- 19. Sleep Regulation and Function Gordon Conference (2022) *Symposium Presentation*, Tuscany, Italy, "Heritability of Sleep Neurophysiology"
- 20. Simons Foundation (2022) *Invited Speaker*, Virtual Presentation, "Sleep EEG: The Clearest Window onto the Brain"
- 21. Associated Sleep Professional Societies (2022), *Symposium Presentation*, Charlotte, USA, "Sleep, Sleep Homeostasis and Brain Maturation".
- 22. Associated Sleep Professional Societies (2022), *Symposium Presentation*, Charlotte, USA, "Reduced Slow Wave Activity in Adolescents with Major Depressive Disorder".
- 23. Sleep and Health Symposium (2022), *Symposium Presentation*, Zurich, Switzerland, "Nature and Nurture: Genetic Contribution to Inter-individual Variability in Sleep and Circadian Rhythms"

#### **MEDIA COVEREGE**

- 1. Media coverage of: "**Tarokh, L.,** Carskadon, M.A., and Achermann, P. (2011) Trait-Like Characteristics in the Sleep EEG Across Adolescent Development. Journal of Neuroscience"
  - a. General Press Release: http://news.brown.edu/pressreleases/2011/04/sleep
  - b. Voice of America: http://blogs.voanews.com/science-world/2011/05/13/are-brainwaves-as-unique-as-fingerprints/
- Media coverage of "Tarokh, L., Van Reen, E., LeBourgeois, M., Seifer, R., and Carskadon, M.A. (2011) Sleep EEG Provides Evidence that Cortical Changes Persist into Late Adolescence. Sleep, 34(10): 1385-93."
  - a. Press Release: http://www.medicalnewstoday.com/releases/224
  - b. Comment in: Colrain, I.M. and Baker F.C. Sleep EEG, the clearest window through which to view the adolescent brain. Sleep. 34 (10): 1287-8.
- 3. Media coverage of "Rusterholz, T.\*, Hamann, C.\*, Markovic, A., Achermann, P., Schmidt, S., and **Tarokh**, **L** (2018). Nature and Nurture: Brain region specific inheritance of sleep neurophysiology in adolescence. *Journal of Neuroscience.*"
  - Selected for Journal Press Release and Research Roundup: http://neuronline.sfn.org/Articles/Scientific-Research/2018/October-2018-Research-Roundup
  - b. https://www.sciencedaily.com/releases/2018/09/180924144047.htm
- 4. University of Bern UniPress, Schlaf fürs Gehirn, Schwermut überwinden im Schlaf. https://www.unibe.ch/unibe/portal/content/e796/e800/e10902/e277579/e776897/files776923/up\_176\_s\_2 5\_jakob\_ger.pdf
- Comment on Livescience article "Cao., J, Herman, A.B., West, G.B., Poe, G., and Savage, V.M. (2020) Unraveling why we sleep: Quantitative analysis reveals abrupt transition from neural reorganization to repair in early development. Science Advances." https://www.livescience.com/why-we-sleep-brainstudy.html
- 6. Jacobs Foundation Profile, "Leila Tarokh, PhD: Part of the Jacobs Network" (2020) https://jacobsfoundation.org/en/leila-tarokh/

# OUTREACH ACTIVITIES (E.G. PUBLIC ENGAGEMENT IN SCIENCE, TECHNOLOGY AND KNOWLEDGE TRANSFER ACTIVITIES, SCIENTIFIC ART PERFORMANCES, ETC.)

- Children's University (2012 and 2013) Demonstration of EEG to school aged children, University of Zurich
- 2. Sleep in Adolescence, (2014) Introduction to sleep given to high-school students in Bern
- 3. Swiss Education Network (Bildungslandschaften Schweiz; 2014) Talk given to educators about the role of sleep in learning
- 4. Sleep in Child and Adolescent Psychiatry (2017) Continuing education about treating sleep problems in psychiatric patients given to clinicians and staff working at the University Hospital of Child and Adolescent Psychiatry and Psychotherapy.
- 5. Women Career Development (2017) Discussion of the role of women in science, University Hospital Zurich
- 6. Night of Science (2017) Research from the realm of dreams. Presentations about sleep for the general public. University of Bern
- 7. Swiss Young Sleep Wake Chronobiology Network (2018) Discussion of career options for young researchers. University of Zurich
- 8. Swiss Young Sleep Wake Chronobiology Network (2021) Career development in academia. Online event
- 9. Growing up in Science (2022) Women in science: Panel discussant. University of Zurich
- 10. Growing up in Science (2022) Human Libraries: Panel Discussant. University of Zurich
- 11. Night of Research (2022) Sleep. Presentations about sleep for the general public. University of Bern

# **COLLABORATORS**

#### National:

- Professor Peter Achermann, University of Zurich
- Professor Bigna Lenggenhager, University of Zurich
- Professor Lutz Jäncke, University of Zurich
- Professor Daria Knoch, University of Bern
- Dr Ruth Tuura, Children's Hospital Zurich
- Professor Sebastian Walther, University of Bern
- Professor Urs Meyer, University of Zurich

#### International •

- Professor Mary A. Carskadon, Brown University, United States
- Professor Melynda Casement, University of Oregon, United States
- Professor Avshalom Caspi, Duke University, United States
- Professor Robert Dallmann, University of Warwick, England
- Dr David Driver, National Institute of Mental Health, United States
- Professor Michael Gradisar, Flinders University, Australia
- Professor Kerstin Hödelmoser, University of Salzburg, Austria
- Professor Uma Rao, University of California, Irvine, United States
- Professor Judy Rapoport, National Institute of Mental Health, United States
- Professor Susan Redline, Harvard Medical School, United States