ORSOLYA KISS

PERSONAL INFORMATION

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Google Scholar	https://scholar.google.hu/citations?user=VhzIsGgAAAAJ&hl=en
Work Authorization	*Authorized to work in the US without sponsorship*

PERSONAL STATEMENT

I have dual training in psychology and computer science. My research lies in the intersection of *data science* and *neuroscience* with a strong focus on extracting key insights from large-scale biomedical datasets. I have contributed to the field of *social cognition* within the context of developmental and comparative behavioral research, and more recently my research interest has focused on *sleep behavior*, *adolescent health* and *women's health*. Currently, I am a *Research Scientist* at SRI International's Human Sleep Lab, based in the Center for Health Sciences. Here, my investigations aim to understand brain maturation through sleep patterns. Recently, I have been developing *computational methods* to explore the intricate associations between *sleep*, *hormonal fluctuations*, and *glucose regulation*, specifically in the context of *Polycystic Ovary Syndrome (PCOS)*.

INTERESTS

computational sleep, development, youth screen use, hormone and metabolic health, machine learning, biomedical data science

EMPLOYMENT

SRI International   2020 - Present
Research Scientist since April 2023, Postdoctoral Scholar since September 2020   *Menlo Park, CA, US*

Sleep and *women's health* - *principal investigator* on internal grant (IRHOME.A.2023.PCOS)
Sleep and *adolescent health* (screen use, substance use)
Applied *interpreteable machine learning* methods in sleep research
Data scientist role within the lab with projects involving signal processing and network analysis

Institute of Cognitive Neuroscience of the Research Centre for Natural Sciences   2015 - 2019
Doctoral Research Fellow   *Budapest, Hungary*

Social sensitivity in the context of *autism*
The effects of social stimulation on cognition
Social sensitivity and sleep in domestic dogs

Informatics Laboratory of the Hungarian Academy of Sciences   Summer 2018
Research Assistant - Intern   *Budapest, Hungary*

Automatic sleep stage scoring in domestic dogs with *neural network* based machine learning models

Esze Tamás Children's home   2015-2016
Child and Adolescent Psychologist   *Budapest, Hungary*

Provided individual and group therapy to adolescents
Conducted assessments, created treatment plans, and monitored progress

Babeș-Bolyai University   2010-2012
Teaching and Research Assistant   *Cluj- Napoca, Romania*

ACADEMIC HISTORY

SRI International 2020-2023
Postdoctoral Research Fellow in the Human Sleep Lab
Advisor: Fiona c. Baker

Budapest University of Technology and Economics 2012 - 2020
Pd.D. student since 2015 in the Psychobiology Research Group, Ph.D. in Cognitive Psychology
Advisor: József Topál

Thesis: Responsiveness to social-affective signals in dogs and humans: neurocognitive and comparative perspectives

Eotvos Lorand University 2007 - 2010
B.Sc. in Computer Science
Advisor: Dévai Gergely and András Benczúr

Thesis: Automatic classification of sleeping EEG time series with machine learning models. (Hungarian)

Babeș-Bolyai University 2010 - 2012
M.Sc. in Educational Psychology - counseling and intervention
Advisor: István Szamosközi

Thesis: Understanding the algorithm versus the algorithm of understanding.(Hungarian)

Babeș-Bolyai University 2010 - 2012
Teaching Certification - Level 2
Advisor: Ráduly Zörgő Éva

Thesis: Methodologies for Group Activities and Activity Facilitation in Educational and Therapeutic Settings. (Hungarian)
Certified and authorized to teach at high schools and universities
Official endorsement by the Ministry of Education, Research, and Youth of Romania.

Babeș-Bolyai University 2007 - 2010
B.Sc. in Psychology
Advisor: Réka János

Thesis: The interaction between the locus of control, competence and judgment. (Hungarian)

Babeș-Bolyai University 2007 - 2010
Teaching Certification - Level 1
Advisor: Ráduly Zörgő Éva

Issued by the Department for Teacher Training
Certified and authorized to teach at elementary and middle schools.
Official endorsement by the Ministry of Education, Research, and Youth of Romania.

TEACHING AND MENTORING

SRI International 2020 - Present
Supervisor *Menlo Park, CA, US*

Mentored and assisted students with their B.Sc. and M.Sc. theses in developmental psychology and computer science: Linhao Zhang (University of Georgia, - Ph.D.), Tomas Mika Bosschieter (Stanford University - Ph.D.),

Zihan Qu (University of California, Los Angeles - M.Sc.), Boróka Bogáti (Budapest University of Technology and Economics, Hungary - M.Sc.), Júlia Lili Fehér (Pázmány Péter Catholic University, Hungary - B.Sc.)

Mentored and managed interns: Anne Arnold (Fairfield University), Adrianna Shaska (Michigan State University), Catherine Lange (University of California, Los Angeles), Emma Frati (Columbia University), Pejmon Shariat (University of San Francisco)

Organized regular scientific seminars to promote knowledge-sharing, enhance collaborative research, and stay updated on recent scientific developments

Pázmány Péter Catholic University

Instructor

2018 - 2019

Budapest, Hungary

Department: Cognitive Psychology
Descriptive and Inferential Statistics
Impact of screen use on the neural development
Mentored and assisted 20 students with their B.Sc. and M.Sc. theses in developmental psychology

Babeș-Bolyai University

Teaching Assistant

2010- 2012

Cluj- Napoca, Romania

Department: Applied Psychology
Descriptive and Inferential Statistics
General Psychology

Budapest University of Technology and Economics

Teaching Assistant

2012 - 2013

Budapest, Hungary

Department: Cognitive Sciences
General Psychology I & II, Visual system and visual illusions

TECHNICAL EXPERIENCE

Python, R, Matlab, EEG, PSG, C++, OOP, Anaconda, Jupyter Notebook, Pandas, scikit-learn, Git, LaTeX

AWARDS AND GRANTS

2023 IRHOME.A.2023.PCOS (MPIs: Kiss & Baker)- SRI International, Biosciences Division, internal grant- Predicting Polycystic Ovary Syndrome (PCOS) with continuous glucose and sleep monitoring data

U01 DA041022 (MPIs: Baker & Műller-Oehring) 09/30/15 – 03/31/27 ABCD-USA Consortium: Research Project: SRI; Role: Co-Investigator

R01 MH128959-01 (MPIs: Baker, & Műller-Oehring) 09/30/15 – 03/31/27 "Effects of pandemic-related disruption to social connectedness on the brain and emotional wellbeing in adolescents"; Role: Postdoctoral Research Fellow

2015 Young Researcher Scholarship program, Hungarian Academy of Sciences, Budapest, Hungary

2018 Awardee of the Advanced Algorithms Seminar for Data Analysis, Eötvös Loránd University, Budapest, Hungary

REVIEWING, PROGRAM COMMITTEE MEMBERSHIP

Annual BCCCD meeting 2020-Present;

Member of the Council of Investigators - Adolescent Brain Cognitive Development (ABCD) Study 2023

Member of the Novel Technologies Workgroup in the Adolescent Brain Cognitive Development (ABCD) Study 2022, 2023

Trainee Member of the Adolescent Brain Cognitive Development (ABCD) Study 2020-2022

Trainee Member, Sleep Research Society 2020-2023

Trainee Member of the Trainee Education Advisory Committee (TEAC) 2023

Member, ESCoP, European Society for Cognitive Psychology 2020-2023

Peer review: Sleep, Journal of Affective Disorders, ELIFE, PLOS ONE, Behavioral Sleep Medicine, Children, Sleep Medicine, Veterinary Research Communications 2020, 2021, 2022, 2023;

RECENT PRESENTATIONS

ABCD Webinar 2023   May 4, 2023, USA
The pros and cons of adolescent screen use: Findings from the ABCD Study®.

Sleep Meeting 2023   June 3-7, 2023, Indianapolis, IN, USA
Using daily wearable cardio fitness and sleep data to predict obesity in early adolescence Sleep moderates the link between youth impulsivity and mature-rated media screen usage Effects of Perceived Discrimination on Sleep and Internalizing and Externalizing Behaviors in Hispanic/Latinx Adolescents

Annual ABCD Meeting   November 8, 2022, San Diego, CA, USA
Using Fitbit data to predict obesity.

Sleep Meeting 2022   June 3-8, 2022, Charlotte, NC, USA
Effects of emerging alcohol use on developmental trajectories of functional sleep measures in adolescents.

Annual ABCD Meeting   November 7, 2021, San Diego, CA, USA
Pandemic Related Distress.

Sleep Meeting 2021   June 10-13, 2021, Virtual, USA
Poor sleep as a predictor of COVID-19 related stress, fear and sadness in young adolescents: a longitudinal study.

PUBLICATIONS

[1] L. Zhang, O. **Kiss**, J. Nagata, M. de Zambotti, F. C. Baker, and A. Oshri. Sleep duration moderates the link between youth impulsivity and mature-rated media usage one year later. *Sleep*, 46(Supplement_1):A94–A95, 2023.

[2] D. Yuksel, O. **Kiss**, D. Prouty, N. Arra, L. Volpe, F. C. Baker, and M. de Zambotti. Stress, hypothalamic pituitary adrenal axis activity and autonomic nervous system function in adolescents with insomnia. *International Journal of Psychophysiology*, 187:43–53, 2023.

[3] D. Yuksel, B. Khajehpiri, M. Forouzanfar, O. **Kiss**, D. Prouty, N. Arra, L. Volpe, F. C. Baker, and M. de Zambotti. Physiological responses to acute psychosocial stress in adolescents with insomnia. *Sleep*, 46(Supplement_1):A70–A70, 2023.

[4] O. **Kiss**, N. Smith, E. Dooley, M. de Zambotti, F. C. Baker, K. P. Gabriel, and J. Nagata. Using daily wearable cardio fitness and sleep data to predict obesity in early adolescence. *Sleep*, 46(Supplement1):A330–A330, 05 2023.

[5] O. **Kiss**, Z. Qu, E. M. Müller-Oehring, F. C. Baker, and B. Mirzasoleiman. Sleep, brain systems, and persistent stress in early adolescents during covid-19: Insights from the abcd study. *Journal of Affective Disorders*, 2023.

[6] O. **Kiss**, A. Goldstone, M. de Zambotti, D. Yüksel, B. P. Hasler, P. L. Franzen, S. A. Brown, M. D. De Bellis, B. J. Nagel, K. B. Nooner, et al. Effects of emerging alcohol use on developmental trajectories of functional sleep measures in adolescents. *Sleep*, 46(9):zsad113, 2023.

[7] O. **Kiss**, A. Arnold, E. Alzueta, A. Harkness, E. Kerr, N. Arra, I. Durley, L. Camacho, L. Tager, R. Fan, et al. Later chronotype, insufficient and disturbed sleep are linked to menstruation problems in early adolescent girls. *Sleep*, 46(Supplement_1):A332–A332, 2023.

[8] W. E. Pelham III, S. F. Tapert, M. L. Zúñiga, W. K. Thompson, N. E. Wade, M. R. Gonzalez, H. Patel, F. C. Baker, G. J. Dowling, S. A. B. Van Rinsveld, Amandine M, O. **Kiss**, and S. A. Brown. Pandemic-related changes in the prevalence

of early adolescent alcohol and drug use, 2020–2021: Data from a multisite cohort study. *Journal of Adolescent Health*, 2023.

[9] J. M. Nagata, N. Smith, S. Alsamman, C. M. Lee, E. E. Dooley, O. **Kiss**, K. T. Ganson, D. Wing, F. C. Baker, and K. P. Gabriel. Association of physical activity and screen time with body mass index among us adolescents. *JAMA Network Open*, 6(2):e2255466–e2255466, 2023.

[10] J. M. Nagata, G. Singh, J. H. Yang, N. Smith, O. **Kiss**, K. T. Ganson, A. Testa, D. B. Jackson, and F. C. Baker. Bedtime screen use behaviors and sleep outcomes: Findings from the adolescent brain cognitive development (abcd) study. *Sleep Health*, 2023.

[11] J. M. Nagata, C. M. Lee, J. H. Yang, O. **Kiss**, K. T. Ganson, A. Testa, D. B. Jackson, A. A. Al-Shoaibi, and F. C. Baker. Sexual orientation disparities in early adolescent sleep: Findings from the adolescent brain cognitive development study. *LGBT health*, 2023.

[12] I. Durley, N. Arra, O. **Kiss**, A. Harkness, L. Camacho, and F. C. Baker. Effects of perceived discrimination on sleep and internalizing and externalizing behaviors in hispanic/latinx adolescents. *Sleep*, 46(Supplement_1):A342–A343, 2023.

[13] I. M. Colrain, O. **Kiss**, A. Goldstone, D. Clark, B. Hasler, P. Franzen, M. de Zambotti, D. Yuksel, D. Prouty, and F. C. Baker. Relations between sleep and alcohol use during adolescence. *Alcohol*, 109:82–83, 2023.

[14] D. Benedetti, L. Menghini, R. Vallat, R. Mallett, O. **Kiss**, U. Faraguna, F. C. Baker, and M. de Zambotti. Call to action: an open-source pipeline for standardized performance evaluation of sleep-tracking technology. *Sleep*, 46(2):zsac304, 2023.

[15] D. Benedetti, E. Frati, O. **Kiss**, D. Yuksel, U. Faraguna, B. P. Hasler, P. L. Franzen, D. B. Clark, F. C. Baker, and M. de Zambotti. Performance evaluation of the open-source yet another spindle algorithm sleep staging algorithm against gold standard manual evaluation of polysomnographic records in adolescence. *Sleep Health*, 2023.

[16] J. Alexander, J. Linkersdörfer, K. Toda-Thorne, R. M. Sullivan, K. M. Cummins, R. L. Tomko, N. B. Allen, K. S. Bagot, F. Baker, B. Fuemmeler, H. Elisabet, O. **Kiss**, et al. Passively sensing smartphone use in teens: Rates of use by sex and across operating systems. 2023.

[17] Q. Zhao, K. Wang, O. **Kiss**, D. Yuksel, M. de Zambotti, D. B. Clark, D. B. Goldston, K. B. Nooner, S. A. Brown, S. F. Tapert, et al. Earlier bedtime and effective coping skills predict a return to low-risk of depression in young adults during the covid-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(16):10300, 2022.

[18] t. O. P. D. E. B. F. C. Yuksel, Dilara and M. de Zambotti. Clinical characterization of insomnia in adolescents–an integrated approach to psychopathology. *Sleep Medicine*, 93:26–38, 2022.

[19] D. Yuksel, N. Arra, T. Dulai, L. Volpe, L. Camacho, T. Obilor, C. Hsu, O. **Kiss**, D. Prouty, F. Baker, et al. The first night effect in adolescents with and without insomnia. In *SLEEP*, volume 45, pages A106–A107. Oxford Univ Press Inc Journals Dept, 2022.

[20] O. **Kiss**, E. Alzueta, D. Yuksel, K. M. Pohl, M. de Zambotti, E. M. Műller-Oehring, D. Prouty, I. Durley, W. E. Pelham III, C. J. McCabe, et al. The pandemic's toll on young adolescents: prevention and intervention targets to preserve their mental health. *Journal of Adolescent Health*, 70(3):387–395, 2022.

[21] M. Paschali, O. **Kiss**, Q. Zhao, E. Adeli, S. Podhajsky, E. M. Müller-Oehring, I. H. Gotlib, K. M. Pohl, and F. C. Baker. Detecting negative valence symptoms in adolescents based on longitudinal self-reports and behavioral assessments. *Journal of Affective Disorders*, 312:30–38, 2022.

[22] J. M. Nagata, J. H. Yang, G. Singh, O. **Kiss**, K. T. Ganson, A. Testa, D. B. Jackson, and F. C. Baker. Cyberbullying and sleep disturbance among early adolescents in the us. *Academic Pediatrics*, 2022.

[23] A. T. Marshall, D. A. Hackman, E. Kan, S. Abad, F. C. Baker, A. Baskin-Sommers, G. J. Dowling, M. R. Gonzalez, M. Guillaume, O. **Kiss**, et al. Location matters: Regional variation in association of community burden of covid-19 with caregiver and youth worry. *Health & place*, 77:102885, 2022.

[24] A. T. Marshall, D. A. Hackman, F. C. Baker, F. J. Breslin, S. A. Brown, A. S. Dick, M. R. Gonzalez, M. Guillaume, O. **Kiss**, K. M. Lisdahl, et al. Resilience to covid-19: Socioeconomic disadvantage associated with positive caregiver–youth communication and youth preventative actions. *Frontiers in public health*, 10:734308, 2022.

[25] O. Kiss, D. Yuksel, D. E. Prouty, F. C. Baker, and M. de Zambotti. A dataset reflecting the multidimensionality of insomnia symptomatology in adolescence using standardized questionnaires. *Data in Brief*, 44:108523, 2022.

[26] O. Kiss, M. De Zambotti, E. Schaefer, I. Durley, E. Kerr, T. Dulai, N. Arra, T. Obilor, L. Camacho, C. Hsu, et al. Screen time and sleep in young adolescents before and across the first year of the covid-19 pandemic. *Sleep*, pages A22–A23, 2022.

[27] S. Iacovides, E. Alzueta, P. Perrin, D. Yüksel, D. Ramos-Usuga, O. **Kiss**, M. de Zambotti, M. Cortes, L. Olabarrieta-Landa, J. Arango-Lasprilla, et al. Effects of long covid on sleep health. *Sleep Medicine*, 100:S77, 2022.

[28] M. de Zambotti, D. Yuksel, O. **Kiss**, G. Barresi, N. Arra, L. Volpe, C. King, and F. C. Baker. A virtual reality-based mind–body approach to downregulate psychophysiological arousal in adolescent insomnia. *DIGITAL HEALTH*, 8:20552076221107887, 2022.

[29] E. Alzueta, P. B. Perrin, D. Yuksel, D. Ramos-Usuga, O. **Kiss**, S. Iacovides, M. de Zambotti, M. Cortes, L. Olabarrieta-Landa, J. C. Arango-Lasprilla, et al. Sleep health. *South Asia*, 3:0–3, 2022.

[30] E. Alzueta, P. B. Perrin, D. Yuksel, D. Ramos-Usuga, O. **Kiss**, S. Iacovides, M. de Zambotti, M. Cortes, L. Olabarrieta-Landa, J. C. Arango-Lasprilla, et al. An international study of post-covid sleep health. *Sleep Health*, 8(6):684–690, 2022.

[31] D. Yuksel, D. Prouty, O. **Kiss**, L. Volpe, N. Arra, T. Dulai, I. Durley, T. Obilor, F. Baker, and M. de Zambotti. Clinical characterization of insomnia disorder in adolescence. *Sleep*, 44:A227, 2021.

[32] O. **Kiss**, K. Oláh, L. J. Fehér, and J. Topál. Social categorization based on permanent versus transient visual traits in neurotypical children and children with autism spectrum disorder. *Scientific Reports*, 11(1):6549, 2021.

[33] O. **Kiss**, E. Alzueta, D. Yuksel, I. Durley, L. Volpe, T. Dulai, N. Arra, T. Obilor, K. Pohl, M. de Zambotti, et al. Poor sleep as a predictor of covid-19 related stress, fear and sadness in young adolescents: a longitudinal study. *Sleep*, 44(Supplement_2):A90–A91, 2021.

[34] A. Marshall, D. Hackman, F. Baker, F. Breslin, S. Brown, A. Dick, M. Gonzalez, M. Guillaume, O. **Kiss**, K. Lisdahl, et al. Resilience to covid-19: Socioeconomic disadvantage associated with higher positive parent-youth communication and youth disease-prevention behavior. *Research Square*, 2021.

[35] Á. Galambos, A. Gergely, A. B. Kovács, O. **Kiss**, and J. Topál. Affect matters: Positive and negative social stimulation influences dogs' behaviour in a subsequent situation involving an out-of-reach object. *Applied Animal Behaviour Science*, 236:105242, 2021.

[36] H. Bolló, O. **Kiss**, A. Kis, and J. Topál. The implicit reward value of the owner's face for dogs. *Iscience*, 24(8), 2021.

[37] E. Alzueta, S. Podhajsky, Q. Zhao, S. F. Tapert, W. K. Thompson, M. De Zambotti, D. Yuksel, O. **Kiss**, R. Wang, L. Volpe, et al. Risk for depression tripled during the covid-19 pandemic in emerging adults followed for the last 8 years. *Psychological medicine*, pages 1–8, 2021.

[38] O. **Kiss**, A. Kis, K. Scheiling, and J. Topál. Behavioral and neurophysiological correlates of dogs' individual sensitivities to being observed by their owners while performing a repetitive fetching task. *Frontiers in psychology*, 11:1461, 2020.

[39] O. **Kiss**. Responsiveness to social-affective signals in dogs and humans: neurocognitive and comparative perspectives. 2020.

[40] A. Gergely, O. **Kiss**, V. Reicher, I. Iotchev, E. Kovács, F. Gombos, A. Benczúr, Á. Galambos, J. Topál, and A. Kis. Reliability of family dogs' sleep structure scoring based on manual and automated sleep stage identification. *Animals*, 10(6):927, 2020.

[41] O. **Kiss** and J. Topál. How do dogs monitor the human's attentional state after challenged by the presence of forbidden food? *Biologia Futura*, 70(2):103–111, 2019.

[42] O. **Kiss**, K. Kovács, F. Szánthó, and J. Topál. Similarity between an unfamiliar human and the owner affects dogs' preference for human partner when responding to an unsolvable problem. *Learning & Behavior*, 46:430–441, 2018.

[43] J. Topal and **Kiss** Orsolya. How and why the dogs have become the "new chimpanzees" for cognitive scientists? *Magyar Pszichológiai Szemle*, 72(4):591–608, 2017.

[44] K. Oláh, F. Elekes, B. Turcsán, O. **Kiss**, and J. Topál. Social pre-treatment modulates attention allocation to transient and stable object properties. *Frontiers in psychology*, 7:1619, 2016.