Uku Vainik

Research Fellow (UTARTU) & Adjunct Professor (McGill)

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@ukuv

Curriculum Vitae 2021-11-02

I. General data

- ➤ I am an Estonian researcher, using psychology, neuroscience, and genetics to understand health behaviour.
- ➤ Languages: Estonian native; English excellent; French & English conversational; Russian & Spanish beginner

Education

2011-2015	PhD in Pschology Tartu, Estonia	University of Tartu
2009-2011	MA in Psychology Tartu, Estonia	University of Tartu
2004-2008	BA in Social Sciences Tartu, Estonia	University of Tartu

Professional experience

01/01/2020 - 31/12/2023	Adjunct Professor McGill University	Montreal Neurological Institute, Faculty of Medicine and Health Sciences
01/03/2017	Research Fellow University of Tartu	Institute of Psychology
18/02/2016 - 16/04/2019	Postdoctoral Researcher, prof. MD Dagher La McGill University	ab Montreal Neurological Institute, Faculty of Medicine
01/01/2016 - 28/12/2017	Project Manager Institute of Psychology	Institute of Psychology
01/02/2013 - 31/12/2015	Lab Manager, prof. acad. Allik Lab Institute of Psychology	Institute of Psychology
01/08/2011 - 30/08/2012	Research Assistant, prof. MD Fellows Lab McGill University	Montreal Neurological Institute, Faculty of Medicine
01/01/2011 - 01/05/2011	Research Assistant, prof Tannock Lab University of Toronto	Ontario Institute for Studies in Education

II. Teaching related activites

Teaching

2019 - ... Data Analysis and Research Methods

SOPH.00.270

University of Tartu

- ➤ Contribution: I am resposible teacher, I developed the program. Every year, I invite 5 other scientists to teach, conduct 2 lectures, 3 seminars, and grade 3 sets of papers.
- ➤ Feedback: Above average ratings in almost all categories. 100% of students fully agreed that the course was intellectually challenging. Students appreciated my clear explanation style and logical structure of the course.

2019 - ... Special Seminar in Personality and Social Behaviour

SOPH.00.313

University of Tartu

- ➤ Contribution: As a guest lecturer I have 1 lecture, 1 seminar, and I grade 2 sets of papers.
- ➤ Feedback: Average ratings for course as a whole. I was not specifically evaluated, but students commented on the intellectually stimulating nature of the lecture.

2020 - 2020 Why SEM? How structural equation modelling can help you make the most of your data Rīga Stradinš University

➤ Contribution: I prepared and conducted 2 days of lectures and 1 day hands-on seminar on using structural equation models in psychology. Online material: 1) www.rsu.lv/sites/default/files/imce/Dokumenti/prezentacijas/vpa_2020/why_sem_vainik.pdf 2) panopto.rsu.lv/Panopto/Pages/Viewer.aspx?id=dfe23734-209d-45c6-bd24-abb900f6d847

➤ Feedback: Participants liked my clear overview of a very complex topic. A few applied the knowledge gained in their own analyses and published their own manuscripts.

2021 - ... Health Behaviour

SVPH.00.002

University of Tartu

- ➤ Contribution: As a guest lecturer I have 1 lecture.
- > Feedback: NA

2021 - ... Master's Thesis

SOPH.00.522

University of Tartu

- ➤ Contribution: As a member of Master's in psychology thesis committe, I hear all defences, read in detail 7 theses and evaluate 10+ research proposals.
- Feedback: NA

2021 - ... Personality and Individual Differences

SVPH.00.043

University of Tartu

- ➤ Contribution: As a guest lecturer I have 1 lecture.
- > Feedback: NA

2019 - ... Research Seminar in Experimental Psychology

SVPH.00.052

University of Tartu

- ➤ Contribution: As a research group member I conduct 2 lectures/year and evaluate student presentations.
- ➤ Feedback: NA

2019 - 2020 **Research Paper**

SOPH.00.477

University of Tartu

- ➤ Contribution: As a member of undergraduate research paper committe, I hear all defences, read in detail 10 papers and evaluate 10+ research proposals.
- > Feedback: NA
- ➤ 2015-2015 I was involved in teaching courses on health psychology, statistics, research methods, and brain mechanism of cognition and emotion.

Supervision

- ➤ Ongoing and finished PhD and Master's level supervisions are listed below. Most of them have been at University of Tartu, Estonia, and one at McGill University, Canada. * co-supervisor's role.
- ➤ At undergraduate level I have successfully supervised 11 students and I am currently supervising 5 students.

xx/xx/2023 Kadri Arumäe
Body weight influencing personality: clarifying causality with genetic, longitudinal, and experimental studies

xx/xx/2022 Vivian Aun

MA

Adapting vocabulary and memory tests into Estonian

xx/xx/2022 Deniss Kovaljov MA

Adapting vocabulary and memory tests into Russian

xx/xx/2022 Kadri-Ann Vilk

Polygenic and personality scores predicting health and mental disorders

11/06/2021 Yueh En Wang * MSc @ McGill

Body mass index (BMI) and structural brain connectivity in the human connectome project dataset

21/06/2017 **Kadri Arumäe** MA

Validating and comparing measures of food reward

21/06/2017	Hedvig Sultson * Automatic processing of visual food stimuli during hunger: a visual mismatch response study	MA
21/06/2017	Laura Viljasto Overeating and everyday situations: an ecological momentary assessment study	MA
20/06/2015	Helen Kond Mindfulness Based Brief Intervention to Reduce the Amount of Chocolate Eaten. A Double Blind Experient	

III. Science

- ➤ My main research topic has been understanding the behavioural roots for obesity and overeating. Behaviour is measured either by *personality tests*, capturing our typical thougts, feelings, and behaviour, or *cognitive tests* characterising our thought processes. I have conducted multiple large-scale data analyses and reviews showing that both personality and cognition have robust links with obesity (Vainik et al., 2013; Vainik et al., 2018; Vainik, Dagher et al., 2019; Vainik, Garcia-Garcia, et al., 2019).
- ➤ I also seek to test lay theories of behavior with actual data. For instance, obesity has been proposed to have behavioural similarities with addictions, resulting in the concept of food addiction. To test that idea, I developed a method that compares personality profiles of health behaviours. We found that obesity has only limited behavioural similarity with addictions (Vainik et al., 2020). We are now seeking to extend this method, building an online database of personality profiles, comparable to genetic correlation database LD-Hub.
- ➤ My most recent passion is to **test the causal role of behaviour in health**. Psychologists like to think that personality traits and cognitive abilities cause health behaviours, such as obesity, smoking, or depression. However, these theories have been rarely tested, since randomised controlled trials are expensive. I **now seek to utilise genomic causal inference methods, such as Mendelian randomisation and Direction of Causation**. We have recently found that against expectations, **obesity seems to cause personality traits** (Arumäe et al, 2021).
- ➤ Besides those three topics, I have extensive experience in psychological test development and refinement in the health domain (Vainik et al., 2015, Vainik, Garcia-Garcia, et al., 2019). Most recently, I was been part of US National Institutes of Health effort to choose most promising cognitive tests for obesity and diabetes trials (D'Ardenne et al., 2020).
- ➤ As a practical outcome, together with René Mõttus and testmybrain.org, I have developed an optimal set of quick and detailed measures of personality and cognition.
- ➤ Altogether, I have published **28 papers**, **cited 939 times**, **resulting in a h index of 14**. I have also 8 preprints available online. Within the last 5 years, I have published 23 papers, cited 490 times. Selected papers are presented below.
- ➤ In addition to publishing, I have given 24 invited talks at various seminars all over the world. I have given 13 oral presentations and 20 poster presentations at major meetings on eating behaviour (Society for the Study of Ingestive Behaviour), genetics (American Society for Human Genetics, Behavioral Genetics Association, World Congress of Psychiatric Genetics), brain imaging (Organisation for Human Brain Mapping), and personality (Association for Research in Personality, European Congress of Personality).
- ➤ I am well involved with the scientific community, as I have done 73 reviews for 27 journals https://publons.com/researcher/1216231/uku-vainik/peer-review/
- ➤ I have also participated as session chair, posted judge, and conference program organiser at the Society for the Study of Ingestive Behavior.

Published papers

- 1. Arumäe, K., Briley, D., Colodro-Conde, L., Mortensen, E.L., Jang, K., Ando, J., Kandler, C., Sørensen, T.I.A., Dagher, A., Mõttus, R., & Vainik, U. (2021). Two genetic analyses to elucidate causality between body mass index and personality. *International Journal Of Obesity*, 45 (10), 2244-2251
- 2. Hercberg, S., Touvier, M., Salas-Salvado, J., & Europe, G.E.N.-S. (2021). The Nutri-Score nutrition label: A public health tool based on rigorous scientific evidence aiming to improve the nutritional status of the population. *International Journal For Vitamin And Nutrition Research*
- 3. Lenneis, A., **Vainik, U.**, Teder-Laving, M., Ausmees, L., Lemola, S., Allik, J., & Realo, A. (2021). Personality traits relate to chronotype at both the phenotypic and genetic level. *Journal Of Personality*
- 4. Ausmees, L., Talts, M., Allik, J., **Vainik, U.**, Sikka, T.T., Nikopensius, T., Esko, T., & Realo, A. (2021). Taking risks to feel excitement: Detailed personality profile and genetic associations. *European Journal Of Personality*, 08902070211019242
- 5. Šuriņa, S., Martinsone, K., Perepjolkina, V., Kolesnikova, J., **Vainik, U.**, Ruža, A., Vrublevska, J., Smirnova, D., Fountoulakis, K.N., & Rancans, E. (2021). Factors related to COVID-19 preventive behaviors: A Structural Equation Model. *Frontiers In Psychology*, 12

6. Garcia-Garcia, I., Neseliler, S., Morys, F., Dadar, M., Yau, Y.H.C., Scala, S.G., Zeighami, Y., Sun, N., Collins, D.L., **Vainik, U.**, & Dagher, A. (2021). Relationship between impulsivity, uncontrolled eating and body mass index: a hierarchical model. *International Journal Of Obesity*

- 7. Khundrakpam, B., Choudhury, S., **Vainik, U.**, Al-Sharif, N., Bhutani, N., Jeon, S., Gold, I., & Evans, A. (2020). Distinct influence of parental occupation on cortical thickness and surface area in children and adolescents: Relation to self-esteem. *Human Brain Mapping*, 41 (18), 5097-5113
- 8. Robinson, E., Roberts, C., **Vainik**, **U.**, Estonia, T., & Jones, A. (2020). The psychology of obesity: an umbrella review and evidence-based map of the psychological correlates of heavier body weight. *Neuroscience & Biobehavioral Reviews*
- 9. D'Ardenne, K., Savage, C.R., Small, D., **Vainik, U.**, & Stoeckel, L.E. (2020). Core Neuropsychological Measures for Obesity and Diabetes Trials: Initial Report. *Frontiers In Psychology*, 11
- 10. Khundrakpam, B., **Vainik**, **U.**, Gong, J., Al-Sharif, N., Bhutani, N., Kiar, G., Zeighami, Y., Kirschner, M., Luo, C., Dagher, A., & Evans, A. (2020). Neural correlates of polygenic risk score for autism spectrum disorders in general population. *Brain Communications*, 2 (2), fcaa092
- 11. **Vainik**, **U.**, Misic, B., Zeighami, Y., Michaud, A., Mõttus, R., & Dagher, A. (2020). Obesity has limited behavioural overlap with addiction and psychiatric phenotypes. *Nature Human Behaviour*, 4 (1), 27-35
- 12. Wood, A.C., **Vainik, U.**, Engelhardt, L.E., Briley, D.A., Grotzinger, A.D., Church, J.A., Harden, K.P., & Tucker-Drob, E.M. (2019). Genetic overlap between executive functions and BMI in childhood. *The American Journal Of Clinical Nutrition*, 110 (4), 814-822
- 13. **Vainik, U.**, García-García, I., & Dagher, A. (2019). Uncontrolled eating: a unifying heritable trait linked with obesity, overeating, personality and the brain. *European Journal Of Neuroscience*, 50 (3), 2430-2445
- 14. **Vainik, U.**, Dagher, A., Realo, A., Colodro-Conde, L., Mortensen, E.L., Jang, K., Juko, A., Kandler, C., Sørensen, T.I.A., & Mõttus, R. (2019). Personality-obesity associations are driven by narrow traits: A meta-analysis. *Obesity Reviews*, 20 (8), 1121-1131
- 15. Arumäe, K., Kreegipuu, K., & Vainik, U. (2019). Assessing the overlap between three measures of food reward. *Frontiers In Psychology*, 10, 883
- 16. Sultson, H., **Vainik**, **U.**, & Kreegipuu, K. (2019). Hunger enhances automatic processing of food and non-food stimuli: A visual mismatch negativity study. *Appetite*, 133, 324-336
- 17. Vainik, U., Han, J. E., Epel, E.S., Tomiyama, A. J., Dagher, A., & Mason, A.E. (2019). Rapid Assessment of Reward-Related Eating: The RED-X5. *Obesity*, 27 (2), 325-331
- 18. **Vainik, U.**, Baker, T.E., Dadar, M., Zeighami, Y., Michaud, A., Zhang, Y., Alanis, J.C.G., Misic, B., Collins, D.L., & Dagher, A. (2018). Neurobehavioral correlates of obesity are largely heritable. *Proceedings Of The National Academy Of Sciences*, 115 (37), 9312-9317
- 19. Yau, Y., Zeighami, Y., Baker, T.E., Larcher, K., **Vainik**, **U.**, Dadar, M., Fonov, V.S., Hagmann, P., Griffa, A., Mišić, B., Collins, D.L., & Dagher, A. (2018). Network connectivity determines cortical thinning in early Parkinson's disease progression. *Nature Communications*, 9 (1), 1-10
- 20. Mõttus, R., Realo, A., **Vainik, U.**, Allik, J., & Esko, T. (2017). Educational attainment and personality are genetically intertwined. *Psychological Science*, 28 (11), 1631-1639
- 21. Michaud, A., **Vainik**, **U.**, Garcia-Garcia, I., & Dagher, A. (2017). Overlapping neural endophenotypes in addiction and obesity. *Frontiers In Endocrinology*, 8, 127
- 22. Mason, A.E., **Vainik**, **U.**, Acree, M., Tomiyama, A.J., Dagher, A., Epel, E.S., & Hecht, F.M. (2017). Improving assessment of the spectrum of reward-related eating: the RED-13. *Frontiers In Psychology*, 8, 795
- 23. Rääsk, T., Mäestu, J., Lätt, E., Jürimäe, J., Jürimäe, T., **Vainik, U.**, & Konstabel, K. (2017). Comparison of IPAQ-SF and two other physical activity questionnaires with accelerometer in adolescent boys. *Plos One*, 12 (1), e0169527
- 24. Vainik, U., Konstabel, K., Lätt, E., Mäestu, J., Purge, P., & Jürimäe, J. (2016). Diet misreporting can be corrected: confirmation of the association between energy intake and fat-free mass in adolescents. *British Journal Of Nutrition*, 116 (8), 1425-1436
- 25. **Vainik**, **U.**, Dubé, L., Lu, J., & Fellows, L.K. (2015). Personality and situation predictors of consistent eating patterns. *Plos One*, 10 (12), e0144134
- 26. **Vainik, U.**, Mõttus, R., Allik, J., Esko, T., & Realo, A. (2015). Are trait-outcome associations caused by scales or particular items? Example analysis of personality facets and BMI. *European Journal Of Personality*, 29 (6), 622-634
- 27. **Vainik, U.**, Neseliler, S., Konstabel, K., Fellows, L.K., & Dagher, A. (2015). Eating traits questionnaires as a continuum of a single concept. Uncontrolled eating. *Appetite*, 90, 229-239
- 28. **Vainik, U.**, Dagher, A., Dubé, L., & Fellows, L.K. (2013). Neurobehavioural correlates of body mass index and eating behaviours in adults: A systematic review. *Neuroscience & Biobehavioral Reviews*, 37 (3), 279-299

Book chapters and comments

1. **Vainik**, **U.**, Kööts-Ausmees, L., & Mõttus, R. (2019). Personality loosely mirrors the geography of the world. *In Praise Of An Inquisitive Mind*: A Festschrift In Honor Of Jüri Allik On ...

2. Uusberg, A., **Vainik, U.**, & Kreegipuu, K. (2019). Can't wait or want it now? Impulsivity relates to the immediacy rather than the delay sensitivity aspect of temporal discounting. *In Praise Of An Inquisitive Mind*: A Festschrift In Honor Of Jüri Allik On . . .

3. Vainik, U., & Meule, A. (2018). Jangle fallacy epidemic in obesity research: a comment on Ruddock et al. (2017). *International Journal Of Obesity*, 42 (3), 585

Preprints

- 1. Beyer, F., Horn, K., Frenzel, S., Hofer, E., Knol, M.J., Morys, F., **Vainik, U.**, Auwera, S., Wittfeld, K., Saba, Y., Adams, H., Buelow, R., Grabe, H., Homuth, G., Koini, M., Loeffler, M., Schmidt, H., Schmidt, R., Teumer, A., Vernooij, M.W., Villringer, A., Voelzke, H., Zonneveld, H., Dagher, A., Scholz, M., & Witte, A.V. (2021). Investigating the genetic and environmental basis of head micromovements during MRI. *Biorxiv*
- 2. Hang, Y., Speyer, L.G., Haring, L., Lee, B., **Vainik, U.**, Luciano, M., & Mõttus, R. (2021). Establishing a Health Network of Personality Profiles for Adolescents and Emerging Adults. *Psyarxiv*
- 3. Arumäe, K., Mõttus, R., & **Vainik, U.** (2021). Beyond BMI: Personality Traits' Associations With Adiposity and Metabolic Rate. *Psyarxiv*
- 4. Merz, E.C., Strack, J., Hurtado, H., Vainik, U., Thomas, M., Evans, A.C., & Khundrakpam, B. (2021). Educational Attainment Polygenic Scores, Socioeconomic Factors, and Cortical Structure in Children and Adolescents. *Biorxiv*
- 5. Khundrakpam, B., Bhutani, N., **Vainik, U.**, Al-Sharif, N.B., Dagher, A., White, T.H., & Evans, A.C. (2021). A critical role of brain network architecture in a continuum model of autism spectrum disorders spanning from healthy individuals with genetic liability to individuals with ASD. *Biorxiv*
- 6. Kirschner, M., Paquola, C., Khundrakpam, B.S., **Vainik**, **U.**, Bhutani, N., Al-Sharif, N.B., Misic, B., Bernhardt, B., Evans, A.C., & Dagher, A. (2021). Schizophrenia polygenic risk during typical development reflects multiscale cortical organization. *Biorxiv*
- 7. Benhajali, Y., Badhwar, A.P., Urchs, S., Moreau, C., Chouinard-Decorte, F., **Vainik, U.**, Ferré, P., Orban, P., Pérusse, D., & Bellec, P. (2020). Subtypes of brain activation are heritable and genetically linked with behavior in the Human Connectome Project sample. *Psyarxiv*
- 8. **Vainik**, **U.**, Paquola, C., Wang, X., Zheng, Y.Q., Bernhardt, B., Misic, B., & Dagher, A. (2020). Heritability of cortical morphology reflects a sensory-fugal plasticity gradient. *Biorxiv*

Research funding

➤ I am project leader / principal investigator in all of them

University of Tartu

- EUR: 10000
01/01/2021 - 31/12/2021
PSG656 Exploiting genomic lottery to understand causality between personality traits, cognition, and

health Estonian Research Council

- FUR: 96375

01/05/2019 - 30/04/2021 MOBTP94 Obesity's behavioural similarities with addictions and mental health conditions Mobilitas Pluss returning researcher grant

01/11/2021 - 15/02/2022 ATLASofBEHAVIOUR - atlas of causation between behaviour and health

Estonian Research Council

- EUR: 63420

01/05/2017 - 30/04/2019 Neurobehavioural phenotypes provide tools for genetics-based precision treatment of obesity Postdoc-

Fonds de Reserche de Québec - Santé

- EUR: 45000

01/03/2017 - 28/02/2019 PUTJD654 From genetic risk factors to obesity via psychological and brain endophenotypes Personal

Post-doctoral Research Funding Estonian Research Council

- EUR: 81359.42

01/01/2015 - 01/08/2015 The impact of personality on exposure to environmental health factors in Tartu. Example analysis on

fast food restaurants. Intedisciplinary project between University of Tartu's Department of Geography, Institute of Family Medicine and Public Health, and Institute of Psychology

ERC Incentive Grant

Personal research funding: Start-up grant

Doctoral School of Behavioural, Social and Health Sciences

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- EUR: 8155.67

01/02/2013 - 01/12/2013 The impact of eating regulation on the health indicators and biological maturation of boys in puberty.

Intedisciplinary project between University of Tartu's Institute of Sport Sciences and Physiotherapy and Institute of Psychology Doctoral School of Behavioural, Social and Health Sciences

- EUR: 6600

Oral presentations

1. Two genetic analyses to elucidate causality between body mass index and personality. *Computational Approaches in Eating Behavior Research*, Virtual, 01/2021.

- 2. Obesity causes personality evidence from twins. 27th Annual Meeting of the Society for the Study of Ingestive Behaviour, Utrecht, The Netherlands, 07/2019.
- 3. Hunger enhances automatic processing of food and non-food stimuli: A visual mismatch negativity study. *Neuroendocrinology and Brain Imaging*, Rome, Italy, 06/2019.
- 4. Unifying the many neurocognitive traits associated with obesity: Uncontrolled Eating. 26th Annual Meeting of the Society for the Study of Ingestive Behaviour, Bonita Springs, USA, 07/2018.
- 5. Obesity-related neural and behavioural patterns are largely heritable. *The 51st Winter Conference on Brain Research*, Whistler, Canada, 01/2018.
- 6. Uncontrolled eating is behaviourally similar to addiction, whereas obesity is associated with more diverse disorders: A personality-profile analysis across 16770 participants. The 25th Annual Meeting of the Society for the Study of Ingestive Behaviour, Montreal, Canada, 07/2017.
- 7. Obesity differs from other addictive and clinical phenotypes, but uncontrolled eating is similar. A personality profile analysis. The Biennial Association for Research in Personality Conference, Sacramento, USA, 06/2017.
- 8. BMI-brain structure associations are largely genetic and partly mediated by cognitive abilities and personality traits. 5th Annual Canadian Neurometabolic Club Meeting. Satellite of the Canadian Association for Neuroscience meeting, Montreal, Canada, 05/2017.
- 9. Marketing Food Environment and Food Consumption in Children: Moderation by Food-Related Psychosocial Factors. 37th Annual Meeting & Scientific Sessions of the Society of Behavioral Medicine, Washington DC, USA, 03/2016.
- 10. Psychosocial predictors of eating consistency. The 39th Annual Meeting of the British Feeding & Drinking Group, Wageningen, the Netherlands, 04/2015.
- 11. Eating traits as a continuum of a single concept: Uncontrolled eating. The 22nd Annual Meeting of the Society for the Study of Ingestive Behaviour, Seattle, USA, 07/2014.
- 12. Eating traits as a continuum of a single concept: Uncontrolled eating. The 38th Annual Meeting of the British Feeding & Drinking Group, Portsmouth, UK, 04/2014.
- 13. What are the core neurocognitive and personality correlates of obesity and maladaptive eating behaviours in humans? The 37th Annual Meeting of the British Feeding & Drinking Group, Loughborough, UK, 04/2013.

Invited talks

- 1. Measuring 100 personality traits and 9 cognitive domains at biobank scale under 1 hour *Core Neuropsychological Measures for Obesity and Diabetes Project: Implementation and Dissemination Objectives Meeting*, Virtual, 08/2021.
- 2. Uncontrolled eating mapping causality and relations with hundreds of phenotypes 28th Annual Meeting of the Society for the Study of Ingestive Behaviour, Utrecht, The Netherlands., Virtual, 07/2021.
- 3. Panel member Neuroscience of the self and adaptive real-world behaviour, MCCHE Virtual seminar, 02/2021.
- 4. Ennetusprogrammide mõju mõõtmine vajalikkus, õppimiskohad ja lahendused *Tervise Arengu Instituut*, Virtual, 01/2021.
- 5. Two genetic analyses to elucidate causality between body mass index and personality *University of Edinburgh*, Virtual, 12/2020.
- 6. Psühholoogia, inimgeograafia ja geenid söömise kontekstis *Mobiilsusuuringute labori suvepäevad*, Vaaba, Estonia, 08/2020.
- 7. Kas toiduga liialdamist saab võrrelda sõltuvustega ülevaade neurokäitumuslikest ja isiksuse uuringutest. *Tartu Ülikooli psühhiaatriakliiniku teaduskonverents*, Tartu, Estonia, 01/2020.
- 8. Obesity causes personality evidence from polygenic scores and twins. The Annual Conference of the Institute of Molecular and Cell Biology and Institute of Genomics, University of Tartu, Estonia, 12/2019.
- 9. Obesity causes personality evidence from polygenic scores and twins. *Polygenic Scores*, *Genetics & Brain Imaging Symposium*, Montreal, Canada, 11/2019.
- 10. Obesity causes personality evidence from polygenic scores and twins. University of Helsinki, Finland, 10/2019.
- 11. Obesity causes personality evidence from polygenic scores and twins. *Helmholtz Center Munich at the University of Tübingen*, Germany, 10/2019.
- 12. Obesity has limited neurobehavioural overlap with addictions. *Keynote at the Motivational Interviewing Network of Trainers Forum*, Tallinn, Estonia, 09/2019.
- 13. Uncontrolled Eating (UE): A common heritable trait linked with obesity, overeating, personality & the brain. *Max Planck Institute for Metabolism Research*, Cologne, Germany, 05/2019.
- 14. Factors influencing heritability of brain morphology from sensation to cognition. *Brain Imaging Centre Lecture*, Montreal Neurological Institute, Canada, 04/2019.

15. Obesity-related neural and behavioural patterns are largely heritable. *Cognition and Circuits Rounds*, Montreal Neurological Institute, Canada, 10/2018.

- 16. Uncontrolled Eating: A common heritable trait linked with obesity, overeating, personality & the brain. *Max Planck Institute*, Leipzig, Germany, 06/2018.
- 17. Linking obesity to genes, brain, and behaviour. *Cerebral Imaging Center*, Douglas Mental Health University Institute, Canada, 11/2017.
- 18. Linking obesity to genes, brain, and behaviour. University of California, San Francisco, USA, 06/2017.
- 19. Towards a comprehensive framework for the psychological mechanisms of obesity and overeating. *Cognition and Circuits Rounds*, Montreal Neurological Institute, Canada, 03/2016.
- 20. Understanding self-regulation in an obesogenic environment. Leeds University, UK, 04/2015.
- 21. Eating & environment & person. Overview and technical challenges. Netherlands Institute of Ecology, Wageningen, the Netherlands, 04/2015.
- 22. Psychological mechanisms behind obesity. *Annual conference of Estonian Association of Physiotherapists*, Pärnu, Estonia, 09/2015.
- 23. Eating & environment & person. Overview and technical challenges. Mobility lab seminar: Spacetime trajectory analyses and eating behavior, Tartu, Estonia, 02/2015.
- 24. Psychological mechanisms for gaining weight. Annual Conference of the Doctoral School of Behavioural, Social and Health Sciences, Roosta, Estonia, 05/2013.

Poster presentations

- 1. Measuring 100 personality traits and 9 cognitive domains at biobank scale under 1 hour opportunities for psychiatric genomics World Congress of Psychiatric Genetics, Virtual, 10/2021.
- 2. Measuring 100 personality traits and 9 cognitive domains at biobank scale under 1 hour *Behavioral Genetics Association*, Virtual, 06/2021.
- 3. Measuring 9 cognitive domains under 30 minutes 22nd Neuropsychology Day and Brenda Milner Lecture, Virtual, 05/2021.
- 4. Mapping eating and obesity in a behavioural atlas of 229 diseases and phenotypes *The British Feeding and Drinking Group (BFDG) 45th Annual Meeting*, Virtual, 03/2021.
- 5. Two genetic analyses to elucidate causality in the associations between body mass index and psychological traits *World Congress of Psychiatric Genetics*, Virtual, 10/2020.
- 6. Two genetic analyses to elucidate causality in the associations between body mass index and psychological traits *Behavioral Genetics Association*, Virtual, 06/2020.
- 7. Obesity causes personality evidence from twins. Gene Forum, Tartu, Estonia, 08/2019.
- 8. Heritability of brain structures follows synaptic hierarchy. Annual Meeting of the Organization for Human Brain Mapping, Rome, Italy, 06/2019.
- 9. Neurobehavioral correlates of obesity are largely heritable. *Annual Meeting of the Society for Neuroscience*, San Diego, USA, 11/2018.
- 10. Neurobehavioural correlates of obesity are largely heritable. *Back to Organization for Human Brain Mapping*, Montreal, Canada, 10/2017.
- 11. BMI-brain structure associations are largely genetic and partly mediated by cognitive abilities and personality traits. The 25th Annual Meeting of the Society for the Study of Ingestive Behaviour, Montreal, Canada, 07/2017.
- 12. More than inhibition. Diverse brain structures and cognitive tests associate with body weight. Organization for Human Brain Mapping, Vancouver, Canada, 06/2017.
- 13. Obesity is more similar to addictions, whereas diabetes is more similar to clinical phenotypes. A personality profile comparison across multiple studies. *Eleventh Annual Retreat Montreal Diabetes Research Center*, Montreal, Canada, 02/2017.
- 14. Genetic and environmental overlap between Uncontrolled Eating and obesity. *Annual Meeting of the American Society of Human Genetics*, Vancouver, Canada, 10/2016.
- 15. Cognitive accuracy partly mediates the negative association between obesity and the thickness of parahippocampal cortex. 2nd Symposium of J.A. DeSève Research Chair in Nutrition, Montreal, Canada, 05/2016.
- 16. Predictors of meal underreporting improve meal interview fat-free mass association. Annual Conference of the Doctoral School of Behavioural, Social and Health Sciences, Kääriku, Estonia, 05/2015.
- 17. Refining personality trait-outcome associations by examining measurement independence: The case of BMI. *The* 17th European Conference on Personality, Lausanne, Switzerland, 07/2014.
- 18. Refining personality- BMI associations by testing for measurement independence. The 38th Annual Meeting of the British Feeding & Drinking Group, Portsmouth, UK, 04/2014.
- 19. State hunger relates positively to power of food and Extraversion, and negatively to eating competence. The 21st Annual Meeting of the Society for the Study of Ingestive Behaviour, New Orleans, USA, 07/2013.

20. Temporal characteristics of decision-making in a delay-discounting task: An EEG time-frequency perspective. *Cognitive Neuroscience Society Nineteenth Annual Meeting*, Chicago, USA, 03/2012.

IV. Participation in leading and development of the university

- ➤ I was student member of the council of Institute of Psychology 2010-2015
- ➤ I helped to prepare an assessment report for Study Programme Group of Psychology at University of Tartu.

V. Societal activities

Science popularisation talks

- 1. Eesti Kaubandus- ja tööstuskoda: Toidusektori tootearenduspäevad (2021) Emotsioonid ja söömine muna ja kana
- 2. TÜ psühholoogia instituut (2021) Teadlaste ÖÖ Festival
- 3. Tartu Rotary Club (2021) Kas magus elu on ikka lõbus? Mida peab teadma toidusõltuvusest?
- 4. Käo tugikeskus (2021) Psühholoogilised põhjused toiduga liialdamisel ja mida nende vastu ette võtta?
- 5. Riigi Tugiteenuste Keskus (2021) Aju, tervislik toitumine ja ahvatlused
- 6. Academy of Good Thoughts (2021) Aju, tervislik toitumine ja ahvatlused
- 7. Keskkonnaamet (2020) Kas magus elu on ikka lõbus? Mida peab teadma toidusõltuvusest?
- 8. Nõuni haridusakadeemia (2020) Kas magus elu on ikka lõbus? Mida peab teadma toidusõltuvusest?
- Toitumis- ja liikumisravi konverents Rasvtõbi (2019) Ülekaalu patsiendi motiveerimine, rasvumise psühholoogilised kõrvalmõjud.
- 10. AHHAA Teadlaste ÖÖ (2019) Ülekaal, keskkond, geenid ja käitumine

Science popularisation online

- 1. Vikerraadio: Huvitaja (2021) Orienteerumine kohalike omavalitsuste valimistel. Kaalulangetus https://vikerraadio.err. ee/1608338663/huvitaja-orienteerumine-kohalike-omavalitsuste-valimistel-kaalulangetus
- 2. Äripäeva raadio: Imeline teadus (2021) Tapvavõitu ilmastik ja kehakaalu ning isiksuse iseäralik suhe https://www.aripaev.ee/raadio/episood/tapvavoitu-ilmastik-ja-kehakaalu-ning-isiksuse-isearalik-suhe
- 3. Vikerraadio: Vikerhommik (2021) Uku Vainik. Kehakaalu efekt isiksusele on suurem kui arvati https://vikerraadio.err. ee/1608270432/vikerhommik-erle-loonurm-ja-priit-kuusk/1333377
- 4. Novaator (2021) Kehakaalu mõju isiksusele osutus seni eeldatust suuremaks https://novaator.err.ee/1608278976/kehakaalu-moju-isiksusele-osutus-seni-eeldatust-suuremaks
- 5. Postimees: Nädala keha ja vaim (2021) Mis on soomeugrilaste kõrge IQ taga: karm kliima, kole katk või hoopis miski muu? https://tervis.postimees.ee/7289728/mis-on-soomeugrilaste-korge-iq-taga-karm-kliima-kole-katk-voi-hoopis-miski-muu
- 6. Kuku Raadio: Ärataja (2021) Uku Vainik toiduainete märgisüsteem Nutri-Score https://podcast.kuku.postimees.ee/podcast/arataja-uku-vainik-toiduainete-margisusteem-nutri-score/
- 7. TerviseGeenius: Hea nõuanne (2021) Teadlaste väljatöötatud märgistussüsteem aitab lihtsasti valida tervislikuma toidukorvi https://tervise.geenius.ee/rubriik/hea-nouanne/teadlaste-valjatootatud-margistussusteem-aitab-lihtsasti-valida-tervislikuma-toidukorvi/
- 8. Nestle (2021) "Nutri-Score" toidumärgistus aitab tervislikemaid eluviise luua https://www.nestle.lt/et/media/article/nutri-score-toidumargistus-aitab-tervislikemaid-eluviise-luua
- 9. iPharma.ee (2021) Tervis toiduainete pakendi märgisel
- 10. AHHAA: Vaimse tervise teadus-e-kohvik (2021) Kust tulevad koroonakilod? https://www.facebook.com/events/293341899058719
- 11. Postimees (2021) Geneetika näitab eluviiside rolli Covid-19 diagnoosil https://leht.postimees.ee/7173000/uku-vainik-geneetika-naitab-eluviiside-rolli-covid-19-diagnoosil
- 12. TalTEch Digital Health podcast (2021) Randomised controlled trial is king but there are new alternatives https: //podcasts.apple.com/ee/podcast/5-uku-vainik-randomised-controlled-trial-is-king-but/id1538600526?i= 1000506255666
- 13. Elisa Elustiili Stuudio LIVE! (2021) Geneetika vajutab püssi aga keskkond vajutab päästikule https://www.elisa.ee/et/uudised/psuhholoogia-teadur-uku-vainik-geneetika-laeb-pussi-aga-keskkond-vajutab-paastikule
- 14. Elisa Elustiili Stuudio LIVE! (2021) Geneetika vajutab püssi aga keskkond vajutab päästikule https://www.facebook.com/elisaelustiil/videos/837956856775077
- 15. Kuku Raadio: Kuue samba taga (2020) Kuue samba taga http://podcast.kuku.postimees.ee/podcast/kuue-samba-taga-2020-12-21/
- 16. Väärikate ülikool (2020) Kas magus elu on ikka lõbus? Mida peab teadma toidusõltuvusest? https://www.uttv.ee/naita?id=30925
- 17. Eesti toidupoliitika labor: Talust Taldrikule (2020) Kuidas teha tervislikke valikuid ülesöömist soodustavas keskkonnas? https://vimeo.com/479839740

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18. Arvamusfestival: Teaduse lava (2020) Kui tervisest sõltub meie elu, millest sõltub tervis https://soundcloud.com/arvamusfestival/kui-tervisest-soltub-meie-elu

- 19. Novaator: Kõik mida oled tahtnud jaanipäeva kohta teada, aga pole julgenud küsida (2020) Mis juhtub kui korraga liiga palju süüa? https://novaator.err.ee/1104272/koik-mida-oled-tahtnud-jaanipaeva-kohta-teada-aga-pole-julgenud-kusida
- 20. ETV: Uudishimu tippkeskus Hooaeg: 3, Osa: 31 (2019) Toidu tajumine https://etv.err.ee/1008046/uudishimu-tippkeskus
- 21. Nature Behavioural & Social Sciences: Behind the paper (2019) Recycling personality papers to understand obesity and addictions https://socialsciences.nature.com/posts/55345-recycling-personality-papers-to-understand-obesity-and-addictions
- 22. Altmetric: 7 news sites worldwide (2019) 7 news sites worldwide https://nature.altmetric.com/details/69408807
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- 25. Ottawa Citizen: Diet & Fitness (2019) Your brain could be making you fat, Montreal researchers suggest https://ottawacitizen.com/news/local-news/your-brain-could-be-making-you-fat-montreal-researchers-suggest/wcm/384359e5-044c-4174-92fc-41ac922d8d73
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- 27. McGill Tribune: Science & Technology (2018) Behind the invisible brain-print of obesity http://www.mcgilltribune. com/sci-tech/behind-the-invisible-brain-print-of-obesity-011018/
- 28. Global News: Global News (2018) Obesity linked to brain and genes, says Montreal researcher https://globalnews.ca/news/4417395/obesity-linked-to-brain-and-genes-says-montreal-researcher/
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- 31. Forbes: Healthcare (2018) Brain Structure And Genetics Influence Our Bodyweight More Than We Know, Suggests New Study https://www.forbes.com/sites/daviddisalvo/2018/08/29/brain-structure-and-genetics-may-influence-our-bodyweight-more-than-we-know-suggests-a-new-study/#3eb431ab56e6
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- 39. Õhtuleht: Toidutare | Toiduuudised (2016) Aju dikteerib, kui tervislikult sa sööd https://toidutare.ohtuleht.ee/882599/aju-dikteerib-kui-tervislikult-sa-sood
- 40. Õhtuleht: Toidutare | Toiduuudised (2016) Nälg pole kaalulangetaja sõber https://toidutare.ohtuleht.ee/743378/nalg-pole-kaalulangetaja-sober
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- 44. Tartu Ülikool: Teadlase 100 sekundit (2015) Miks dieedi pidamine nii tihti nurjub https://novaator.err.ee/256141/100-sekundi-video-miks-dieedi-pidamine-nii-tihti-nurjub
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- 47. Eesti Ekspress: Elu (2015) Mis tung paneb meid toiduga liialdama? https://ekspress.delfi.ee/artikkel/73025755/mistung-paneb-meid-toiduga-liialdama?
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- 51. Novaator: Ühiskond (2013) Mis on saledate saladus? https://novaator.err.ee/543987/mis-on-saledate-saladus
- 52. TÜ Socialia (2011) Lõpuaktus https://www.uttv.ee/naita?id=5593&keel=est
- 53. Rada7: Ülevaade (2008) Kas Internet päästab maailma? https://www.rada7.ee/kas-internet-paastab-maailma/

VI. Self-enhancement

2021 - 2 weeks

Virtual Workshop on Statistical Genetic Methods for Human Complex Traits University of Colorado, USA Structural equation modelling, heritability, genome wide associaton studies, Mendelian randomisation, pathway analysis

▶ https://web.archive.org/web/20210629082029/https://www.colorado.edu/ibg/internationalworkshop/2021-international-statistical-genetics-workshop/workshop-2021announcement

2021 - 8x6 hours Negotiation Technology Master class

Estonian Euromanagement Institute

Planning and executing negotiation, leading meetings

► https://web.archive.org/web/20201124005333/https://euroman.ee/executivecommunication/

2021 - 2 days

Mendelian Randomisation Course

Imperial College London, UK

Mendelian randomisation, bias testing

https://web.archive.org/web/20210310122813/https://www.imperial.ac.uk/schoolpublic-health/study/short-courses/mendelian-randomisation/

2021 - 1 week

Introduction to the Statistical Analysis of Genome-wide Association Studies

University of Surrey / Tartu

Genome wide association studies, population structure, quality control

https://web.archive.org/web/20210129155643/https://www.surrey.ac.uk/cpdand-short-courses/introduction-statistical-analysis-genome-wide-associationstudies

2019 - 9x2 hours Self-expression and vocal abilities for lecturers

University of Tartu

Clear vocal communication skills

https://www.is.ut.ee/pls/ois_sso/!tere.tulemast?leht=OK.KV.VA&id_ay_programm=49893&id_ay_toimumine=63

2018 - 3 weeks

Brainhack School

University of Montreal

Structural and functional brain analysis, FAIR data sharing, machine learning

2018 - 2 days **Foundations of Project Management** Mitacs Canada

Project management, team communication, Critical Path Method

https://web.archive.org/web/20210629093529/https://www.mitacs.ca/en/foundationsproject-management-i

https://web.archive.org/web/20200920050640/https://brainhackmtl.github.io/school2018/

2016 - 2 weeks

Russel Sage Foundation Summer Institute in Social-Science Genomics

Social Science Genetic Association

Twin studies, genome wide association studies, polygenic scores

https://web.archive.org/web/20210629082412/https://ccpr.ucla.edu/2016/02/01/workshopsummer-institute-in-social-science-genomics/

VII. Recognition

- ➤ 2018 Paper award, Faculty of Social Sciences, University of Tartu
- ➤ 2015 Second place in Estonian Research Council's doctoral theses, health sciences category
- ➤ 2014 Paper award, Institute of Psychology, University of Tartu
- ➤ 2013 Second place in Estonian Research Council's doctoral theses, health sciences category
- ➤ 2013 Paper award, Behavioural, Social and Health Sciences