Hanna Maria Kariis

contact@hannamariakariis.xyz · www.hannamariakariis.xyz
https://github.com/hmkar · Citizenship: Estonian

Research interests

Drug usage patterns, Pharmacogenomics, Prediction of adverse effects

Education

2020 – Present **University of Tartu** – Tartu, Estonia
PhD in Genomics
Supervisors: Professors Lili Milani, Assoc. Prof. Kelli Lehto.

Selected coursework

- *Statistics*: Statistical Data Science;

- *Data analytics*: Data Munging, Visualisation, and Communication; Data Management and Data Carpentry

- *Genetics*: Genetic and Genomic Epidemiology, Behavioural Genetics

2015 – 2019 **University of Southampton** – Southampton, United Kingdom
MSc in Neuroscience (First class honors)

Grants

2024 Estonian Center of Excellence of Well-Being Sciences (Estonian Ministry of Science and Education, TK218U6)

2022 The Estonian National Mental Health Study LP1GI20539 (RITA1/02-112-03)

2021 Using real-world big data from eHealth, biobanks and national registries, integrated with clinical trial data to improve outcome of severe mental disorders" (Real-Ment, Horizon2020, 964874)

2021 Management of chronic cardiometabolic disease and treatment discontinuity in adult ADHD patients" (TIMESPAN, Horizon2020, MLTGI21029R (965381).

2020 Predicting comorbid cardiovascular disease in individuals with mental disorder by decoding disease mechanisms (CoMorMent, Horizon2020, MP1GI20003R))

2020   Mental morbidity trajectories in COVID-19 across risk populations of five nations (COVIDMENT, Horizon2020, 105668)

Publications

2024   **Cohort Profile Update: Mental Health Online Survey in the Estonian Biobank (EstBB MHoS)**
Triinu Ojalo, Elis Haan, Kadri Kõiv, [...] Kelli Lehto.
International Journal of Epidemiology.

2023   **Socio-demographic and genetic risk factors for drug adherence and persistence: a retrospective nation-wide and biobank study across 5 medication classes and 1 814 521 individuals**
Mattia Cordioli, Andrea Corbetta, Hanna Maria Kariis, [...] Andrea Ganna.
Preprint.

2023   **The role of depression and antidepressant treatment in antihypertensive medication adherence and persistence: Utilising electronic health record data**
Hanna Maria Kariis, Silva Kasela, Tuuli Jürgenson, [...] Kelli Lehto.
Journal of Psychiatric Research.

2022   **Neandertal introgression partitions the genetic landscape of neuropsychiatric disorders and associated behavioral phenotypes**
Michael Dannemann, Yuri Milaneschi, Danat Yermakovich, [...] Stefan M Gold.
Translational Psychiatry.

2022   **T59. A GENOME-WIDE ASSOCIATION STUDY OF EATING DISORDER SYMPTOMS BASED ON THE SCOFF QUESTIONNAIRE**
Tuuli Sedman, Hanna Maria Kariis, Kristi Krebs, Kelli Lehto.
European Neuropsychopharmacology.

2022   **12. CHARACTERIZING SEVERITY-BASED DEPRESSION SUBTYPES USING ELECTRONIC HEALTH RECORDS AND MACHINE LEARNING IN THE ESTONIAN BIOBANK**
Siim Kurvits, Hanna Maria Kariis, Urmo Võsa, [...] Kelli Lehto.
European Neuropsychopharmacology.

2021   **Cohort Profile: COVIDMENT: COVID-19 cohorts on mental health across six nations**
Anna Bára Unnarsdóttir, Anikó Lovik, Chloe Fawns-Ritchie, [...] Unnur Valdimarsdóttir.
International Journal of Epidemiology.

2021 **TU34. ASSOCIATION BETWEEN DEPRESSION DIAGNOSIS, POLYGENIC RISK FOR DEPRESSION AND ANTIHYPERTENSIVE MEDICATION NON-PERSISTENCE**
Hanna Maria Kariis, Silva Kasela, Tuuli Jürgenson, […] Kelli Lehto.
European Neuropsychopharmacology.

2019 **A primate-specific short GluN2A-NMDA receptor isoform is expressed in the human brain**
Hannah Warming, Chrysia-Maria Pegasiou, Aleksandra Pitera, […] Mariana Vargas-Caballero.
Molecular Brain.

Teaching experience

July 2023 **Montor (Social Engineering): Cybersecurity (Pembroke College, University of Cambridge)**
Mentoring students in conducting Open source intelligence scans against the medical sector in the United Kingdom.

Sept 2023 **Supervisor of a master's student (psychology): (University of Tartu, Estonia)**

Industry experience

July 2023 –
Present
Patrianna Limited (Data analyst) – Estonia
Provide data-driven recommendations to improve product performance, user experiences, and business outcomes.

Nov 2021 –
Present
Estonian Genome Centre (Junior researcher) – Gibraltar
Data analytics of genetic, phenotypic, and electronic health record datasets. Development of statistical analyses, bioinformatic analyses, and predictive modelling.

June 2022
-July 2023
BVGroup (Data analyst) – Gibraltar
Analysed data, and created reports on company performance, provided actionable recommendations.

April 2021 -
Oct 2021
Institute of Genomics, University of Tartu (Genomics Data Specialist) – Estonia
Data analytics of Mental Health Online Survey of mental health during the second wave of the COVID-19 pandemic among 86 000 Estonian Biobank participants.

Feb 2019 - March 2020	**The National Institute for Health Development (Analyst)** – Estonia Analysed the feasibility and cost of implementing a Lung Cancer Screening Programme in Estonia.

Talks and tutorials

Jan 2024	Investigating the genetic liability of side effects leading to discontinuation of antidepressants *Annual conference the Institute of Molecular and Cell Biology and the Institute of Genomics 2024 / oral presentation*
Jan 2023	The role of genetic and epidemiological factors in statin adherence *Annual conference of the Institute of Molecular and Cell Biology 2023 / poster presentation*
Nov 2022	The role of depression and its treatment in antihypertensive medication adherence and persistence *Nordic Society of Human Genetics and Precision Medicine 2022 (NSHG-PM 2022) / poster presentation*
Jan 2022	The association between depression and antihypertensive medication usage *Annual conference of the Institute of Molecular and Cell Biology 2022 / oral presentation*
Oct 2021	Association between depression diagnosis, polygenic risk for depression, and antihypertensive medication non-persistence *World Psychiatric Genetics Conference 2021, poster presentation*

Technical skills

Software
LaTeX, Git, R, SQL (Google BigQuery), Tableau, Looker

Languages
Estonian (fluent), British English (fluent)