



News from the chair

I am delighted to announce that Associate Professor [Deirdre Cronin Fenton](#) has been appointed Vice Chairman of the Personalised Medicine Network. Dee has been an active and inspiring member of our Steering Committee from the start and it is highly appreciated she will now devote even more time and energy into driving our activities forward.

On 25 November 2021, we were finally able to meet and celebrate the inauguration of the Personalised Medicine Network. The interest for this first annual meeting was overwhelming, and more than 100 researchers signed up for the event, which actually exceeded the capacity of the available rooms. We are looking forward to meeting you again at our **next annual meeting on 8 November 2022**. Don't forget to mark your calendar!

We have also been able to revive our seminar series "Approaches to Personalised Medicine at Health" and held several in-person seminars. Being able to meet physically post corona and interact informally in smaller groups has underscored the importance of face-to-face events for exploring new research collaborations. Stay updated and register for the next seminar on 20 April, where Associate Professor [Caroline Adolphsen](#) from Dept. of Law will give an overview of the relevant legislation concerning research in health data and Professor [Lars Dyrskjøt](#) from Dept. of Clinical Medicine will tell us how tumour centric- and liquid biomarkers are used to guide treatment decisions in bladder cancer.

Last but not least we are happy to introduce a new network initiative; the formation of special interest or focus groups. The Personalised Medicine Network will serve as a platform for these special interest groups, the purpose of which is to provide opportunities for researchers with similar interests to meet and exchange ideas. Read more in the next section about the first of several special interest groups in the pipeline – the so-called OMICS Focus Group, which was officially launched on the 10th March.

On the international scene, I'd like to direct your attention to the Nordic Society of Human Genetics and Precision Medicine, NSHG-PM. It is clear that much can be gained by uniting forces and resources across the Nordics, with our similar health care systems, comprehensive health-related data

sets and personalised medicine approaches. Check-out the [NSHG-PM homepage](#) and the PM position paper authored by the founding members of the NSHG-PM [here](#).

I'd also like to flag the International Common Disease Alliance, ICDA and their M2M2M (Maps to Mechanisms to Medicine) motto, signifying a main aim that is shared by our Network: "to improve prevention, diagnosis, and treatment of (common) diseases by accelerating discovery from genetic maps to biological mechanisms to physiology and medicine, to benefit people around the world." You can read more about ICDA [here](#).

Finally, I'd like to mention that the application deadline for the new Master's degree programme in personalised medicine is 1 May 2022.

Anders Børghlum

New cross-faculty OMICS focus group

Assistant Professors and [AIAS fellows](#) [Joanna Kalucka](#) and [Christian Damsgaard](#) from Dept. of Biomedicine at Health and Dept. of Biology at Natural Sciences, respectively, are the initiators of a new cross-faculty special interest group at AU that connects scientists using "omics" techniques in their research.

"In recent years, "omics" techniques have emerged as a powerful tool in the life and biomedical sciences, and have already changed the way we think about gene regulation, cell identity and tissue heterogeneity. Therefore, we would like to establish a "single cell / spatial transcriptomics" group that would connect researchers within Aarhus University and Aarhus University Hospital, who are using these technologies in their projects. The aim of this focus group is to provide a platform where everyone could discuss experimental planning, data generation, analysis, and interpretation. If you would like to be part of the network, please contact us at: focus_omics@au.dk".

Joanna & Christian



Approximately 50 people showed up for the kick-off meeting on 10 March and, at the time of writing, 75 researchers have signed up for the OMICS focus group. The organisers envision to organise bi-monthly meetings with research presentations, workshops on laboratory workflows, data analysis, and data interpretation as well as weekly data analysis get-togethers. [Read more about the focus group and register](#) for the next meeting in the OMICS Focus group on Thursday 19 May.

AU's national supercomputer GenomeDK is expanding

GenomeDK is a (DeiC) national, cross-faculty, cross-disciplinary high-performance computing facility at Aarhus University with a capacity of 5500+ cores and 12 PB of storage. GenomeDK gives researchers and students at Health, Natural Sciences, and Tech, and their collaborators, easy access to extensive compute - and storage resources in an ISO 27001-compliant environment as often required by personalized medicine applications. GenomeDK provides extensive, friendly documentation and custom workshops for your research group covering data management, software installation, and best practices for reproducible research. We also provide a free "sandbox" for getting started. GenomeDK is continuously improved and expanded, with plans to increase both the number of cores and the total storage capacity significantly in 2022. It only takes a few minutes to request an account and get started. See our website for more information.

Annual meeting | 8 November, 2022



On 25 November 2021, more than 100 researchers from different university departments, research units, and hospital departments set off to celebrate the inauguration of the Personalised Medicine Network with pomp and circumstance (read more here about the [network annual meeting](#)). The day included, among others, excellent keynotes from Mark Daly, Director of Institute of Molecular Medicine Finland at University of Helsinki and Professor Ulrik

Lassen from the University of Copenhagen, as well as inspiring talks by local experts and flash talks and poster presentations by younger researchers from Aarhus University and University Hospital. It was a great pleasure to finally meet in person, interact and explore new research collaborations during the more informal discussions that took place at posters and during breaks. Congratulations to



the winners of the Poster Competition Assistant Professor [Anna Starnawska](#) and PhD student [Julie Donskov](#)!



The next annual meeting for the Personalised Medicine Network will take place on 8 November 2022 at Aarhus University. For the latest updates, please visit [our website](#) that will regularly be updated with information about the second annual meeting.

Master's degree in personalised medicine | Application deadline 1 May



Last year, Health – AU launched together with four other universities a new professional Master's degree programme in personalised medicine, which is intended for both health, technical and natural science graduates in the healthcare system, as well as for people in university research environments, public institutions, government agencies, and the pharmaceutical industry. [Read more about the PM Master's degree](#), which is now open for application again (deadline 1 May 2022).

Ongoing research within personalised medicine at AU faculties

May 2021

Associate Professor [Deirdre Cronin Fenton](#) from Dept. of Clinical Medicine received almost DKK 3 million from by the Independent Research Fund Denmark to study modification of endocrine therapy adherence in premenopausal breast cancer. [Read more about the research project](#) that studies pre-menopausal breast cancer patients treated with tamoxifen.

August 2021

PhD [Karina Dalsgaard Sørensen](#), who is affiliated with Dept. of Molecular Medicine at AUH, has been appointed Professor at Dept. Clinical Medicine. [Read more about her research](#) into new methods of diagnosing prostate cancer, including treatment targeting the individual patient.

October 2021

Associate Professor [Søren Besenbacher](#) from Dept. Clinical Medicine received a grant of DKK 6.7 million from the Novo Nordisk Foundation Data Science Investigator Programme to develop new

analytical tools for examining mutations in the genome. [Read more about the research project](#) that overall aims at exploiting genetic data to advance disease knowledge.

November 2021

PhD student [Tatyana Fedorova](#) from Dept. of Clinical Medicine was awarded the Lundbeck Foundation's Talent Prize 2021 for her research into Parkinson's Disease. [Read more about her research](#) that aims at diagnosing Parkinson's Disease more precisely through subdivision of patients according to variants of the disease.

December 2021

Assistant Professor [Anna Starnawska](#) from at Dept. of Biomedicine received DKK 2,860,000 from the Independent Research Fund Denmark to analyse how environmental factors affect the risk of developing mental illness such ADHD and depression. [Read more about the research project](#) that investigates epigenetic mechanisms in children.

Professor [Jacob Giehm Mikkelsen](#) from Dept. of Biomedicine received DKK 5,776,310 from the Carlsberg Foundation to dissect biological pathways and intracellular signalling circuit by combing CRISPR technology and advanced fluorescence-activated cell sorting. [Read more about the research project](#) that examines the link between genetic variations and phenotypes and, in some cases, the development of disease.

January 2022

Professor [Bente Lomholt Langdahl](#) from Dept. of Clinical Medicine received DKK 25 million from Novo Nordisk Foundation to improve the treatment of patients with osteoporosis. [Read more about the research project](#) that aims at developing far more personalised treatment, targeting the disease of the individual osteoporosis patient.

The Danish Ministry of Higher Education and Science has granted DDK 38 million to the so-called "CellX – The Danish Single Cell Examination Platform" project, which is a collaboration among several Danish universities and Steno Diabetes Center Aarhus. [Read more about the new research infrastructure](#) for cell and tissue analysis at the single-cell level that will be headed by Professor [Søren Riis Paludan](#) and colleagues from the Faculty of Health in close collaboration with Professor [Jørgen Kjems](#) from the Faculty of Natural Sciences.

Senior researcher [Julie Werenberg Dreier](#) from National Centre for Register-based Research, clinical Associate Professor [Jakob Christensen](#) from Dept. of Clinical Medicine and colleagues from iPSYCH and Statens Serum Institut identified in a major international [study published in *Brain*](#) 7 new genes

that are associated with an with increased risk of febrile convulsions. The study revealed no correlation between genes associated with febrile convulsion and those associated with psychiatric disorders.

February 2022

Professor [Trine Mogensen](#) from Dept. of Biomedicine and Dept. of Clinical Medicine – Infectious Diseases will be heading a large European research project on COVID-19 that recently received DKK 50 million from the Horizon Europe programme. [Read more the European research project](#) and its AU-based part, which will be analysing genetic and immunological samples from Covid-19 children and adults with autoimmune diseases or long-term complications.

PhD [Christian Fynbo Christiansen](#) has been appointed Professor of kidney disease epidemiology at Dept. of Clinical Medicine. [Read more about his research](#) into kidney diseases, with particular focus on complications arising in connection with cancer treatment and surgery.

PhD student [Tanja Charlotte Frederiksen](#) from Dept. of Clinical Medicine – Cardiological Medicine B received the Danish Ministry of Higher Education and Science's Elite Research Travel Grant. [Read more about the grant](#) that she will use for a research stay at Boston University School of Medicine to investigate how gene-environment interactions may contribute to the development of atrial fibrillation.

March 2022

The Open Discovery Innovation network (ODIN) granted DKK 23.9 million to six AU projects performed in collaboration with the industry. [Read more about the research projects](#) that target a wide range of diseases. Examples include: 1) the BALDER project that aims at identifying new drug targets for Type 2 Diabetes carried out by senior researcher [Peter Sørensen](#) from Center for Quantitative Genetics and Genomics and colleagues together with Novo Nordisk, 2) the BioPsych project conducted by Associate Professor [Betina Elfving](#) from Dept. of Clinical Medicine and colleagues in collaboration with Omiics and Bioneer, which aims at improving the development of radiotracers for in vivo imaging and more personalised treatments.

Senior researcher [Julie Werenberg Dreier](#) from National Centre for Register-based Research and clinical Associate Professor [Jakob Christensen](#) from Dept. of Clinical Medicine showed in a [study published in *Brain*](#) that people with epilepsy experience a substantial reduction in lifespan that cannot fully be explained by the underlying neurological condition itself.

April 2022

Professor [Anders Børglum](#) from Dept. of Biomedicine and colleagues from iPSYCH revealed together with international collaborators in two large [studies published in *Nature*](#) important new knowledge on the genetic background underlying the development of schizophrenia. The affected genes appear

to be expressed exclusively in active neurons within the brain and not in the surrounding non-neuronal cells.

Current funding opportunities within personalised medicine

The Lundbeck Foundation has an open call for Ascending Investigators programme. Application deadline is 18 May 2022: [Ascending Investigators programme](#)

The Novo Nordisk Foundation has an open call for Interdisciplinary Synergy programme. Application deadline is 30 May 2022: [Interdisciplinary Synergy programme](#)

The Independent Research Fund Denmark has an open call for Enhanced clinical and independent research. Application deadline is 2 June 2022: [Enhanced clinical and independent research](#)

The Independent Research Fund Denmark has an open call for Inge Lehmann programme. Application deadline is 16 June 2022: [Inge Lehmann programme](#)

The Danish Cancer Society has an open call for younger researchers. Application deadline is 18 June 2022: [Young talented cancer researcher's grants](#)

The Novo Nordisk Foundation has an open call for Exploratory Interdisciplinary Synergy programme. Application deadline is 18 August 2022: [Exploratory Interdisciplinary Synergy programme](#)

The European Cooperation in Science and Technology (COST) has an open network call with application deadline 20 October 2022: [COST network](#)

European Molecular Biology Organisation has postdoctoral fellowships that enable lab visits worldwide. Application deadline is open: [European Molecular Biology Organisation – postdoctoral fellowships](#)

Upcoming events

20 April 2022

“[Approaches to PM at Health](#)” seminar:

- Research in Data from Biobanks and other Registers – Rules and Consent /Caroline Adolphsen, Dept. of Law, BSS
- Tumor centric- and liquid biomarkers for guiding treatment decisions in bladder cancer /Lars Dyrskjöt Andersen, Dept. of Clinical Medicine, Health

16 June 2022

“Approaches to PM at Health” seminar:

- Pervasive Transcription of the Human Genome /Torben Heick Jensen, Dept. of Molecular Biology and Genetics, Nat
- TBA / Jacob Giehm Mikkelsen, Dept. of Biomedicine, Health

8 November 2022

Second annual meeting for the Personalised Medicine Network

Your input would be appreciated

The Personalised Medicine Network would like to share and promote all relevant news and activities within the network via our newsletter.

We therefore encourage you to submit any input and news of interest to the network (e.g. publications, grants, conferences, seminars, open positions) to research-networks.health@au.dk.

Deadline for input to the next newsletter: **15 September**
