02 NEWSLETTER



AARHUS THE INFLAMMATION UNIVERSITY

News from the chair

HEALTH

With this newsletter from the Inflammation Network we wish to welcome you back from summer holidays, hopefully after an inspiring and relaxing break and with renewed energy. We are pleased to announce the second issue of the Inflammation Network newsletter with several topics, updates, and important meeting dates.

NETWORK

First of all, we will strongly encourage all members to sign up for the upcoming 2nd Inflammation Network Day on 31 August 2022. The registration deadline has been extended to 15 August to allow people returning from holiday to sign-up for the meeting, so please help us spread the word. We invite in particular young researchers to submit an abstract for a flash talk. This represents a great opportunity for PhD students, postdocs, research year students, and the like to practice research presentation. The best presentation will be rewarded with a flash talk award.

We also wish to welcome the following new members of the steering committee of the Inflammation Network: Anne Margrethe Troldborg, Holger Brüggemann and Christian Lodberg Hvas, who have joined the committee to strengthen representation from both clinical and basic science and expand the inflammation network within areas of inflammation and autoimmunity in rheumatic diseases, research into opportunistic bacteria and microbiome, as well as translation into treatment of patients with dysregulated immunity and microbiome in the clinic.

At the time of writing and during the next couple of years, the network steering committee will focus mainly on: 1) Continuous promotion and bridging of basal and clinical research within diseases related to inflammation, infection, and immunopathology, 2) Internationalisation including Circle U. initiatives, 3) Engagement of younger researchers in the network, including the steering committee, and 4) establishment of subgroups/themes related to specific topics, methodologies, and diseases to further encourage and promote networking, research collaborations, grant applications etc. Read more about the network 's vision and strategy at our website.

Trine Mogensen, Managing Professor

Register now | 2nd Inflammation Network Day 31 August

31 AUG On August 31st, the Inflammation Network is again bringing together researchers from different departments and faculties across the university for the 2nd Inflammation Network Day. In November last year, more than 100 researchers gathered to share their latest research within the fields of infection and inflammation (see photos).

This year, the network has set out to do it again, with an exciting cross-disciplinary event with keynote speakers from four different countries, focusing on, among other things, infection immunology, tumour immunology, and autoimmunity. The speaker list includes keynotes Professor Isabelle Meyts from University Hospital Leuven and KU Leuven in Belgium and Professor Karin Broberg from Karolinska Institutet in Sweden. For more details, please see the <u>programme</u>.

Registration: Please register <u>here</u> no later than **15 August 2022**.



The Inflammation Network offers unique opportunities for young researchers

What's in it for early career researchers?

Why should PhD students and other younger researchers bother to engage in interdisciplinary research networks? We all know that PhD students are very busy conducting research, writing papers, teaching, attending conferences and PhD courses etc. Therefore, it may be tempting to turn down academic opportunities such as interdisciplinary research networks that are not completely related to the PhD project. However, from a career point of view, joining a network is one of the most important things you could do to further your career. Networks are likely to open doors to new opportunities and, as a young researcher, you could benefit from sparing with experienced peers about your future career and connecting with peers, who share your passion. Also, the interdisciplinary research networks offer you an opportunity to expand your research network – both nationally and internationally, which may ultimately lead to development of long-lasting professional relationship that your future research projects could benefit from.

The Inflammation Network is used by researchers of all levels of age, including those who are still under education. PhD student <u>Morten Kelder Skouboe</u>, who is member of a research group at Dept. of Biomedicine, says: "I've signed up to get a better idea of what's going on in other areas, and perhaps to get a clearer understanding of how my research skills can be used in other research groups working on things that I find really exciting". You can read more about what the Inflammation Network offers and the full-length interview in this <u>June issue of 'Inside Health'</u>.

1-2 open positions for PhD students in the steering committee

The steering committee of the Inflammation Network will soon be recruiting 1-2 PhD students. Thus, if you are a young inflammation researcher, who wants to leave your mark on infection and inflammation research at the Faculty of Health, Aarhus University, while you at the same time expand your network and boost your CV, stay updated about the <u>vacancies at our network website</u>.

Stem cell focus group

Associate Professor <u>Rikke Nørregaard</u> from Dept. of Clinical Medicine has together with her colleague Associate Professor <u>Marco Eijken</u> from Dept. of Renal Medicine at Aarhus University Hospital (AUH) established a stem cell focus group:

"Stem cell medicine is delivering hope for new treatment strategies across many currently untreatable diseases. Stem cells are found throughout the human body and are critical for a healthy life. Recent scientific advances have allowed us to identify, isolate and engineer stem cells to repair injured tissue. We have established a "Stem cell focus group" that connect researchers within Aarhus University and Aarhus University Hospital, who perform various types of stem cell research. The aim of this stem cell focus group is to discuss experimental planning, data analysis and data interpretation. We have regular in-person meetings, where everyone can interact and get to know each other in order to stimulate discussion and collaboration as well as increase the understanding of stem cell biology in tissue repair and disease mechanisms. If you would like to be a part of this focus group, please contact us at <u>m.eijken@clin.au.dk</u> or <u>rn@clin.au.dk</u>."

Marco Eijken & Rikke Nørregaard

New research centre at AU Health – CIVIA

A new research centre – "Center for Immunology of Viral Infections (CIVIA) – has seen the light of the day at the faculty of Health. Behind the centre, which is funded by a 60 million DKK grant from the Danish National Research Foundation, is Professor <u>Søren Riis Paludan</u> and co-principal investigators Professor <u>Trine Mogensen</u>, Associate Professor <u>David Olagnier</u>, and Professor <u>Jacob Giehm Mikkelsen</u> from Dept. of Biomedicine as well as Professor Andreas Pichlmair from Technical University Munich in Germany. <u>Read more about the new centre</u>, which overall aim is to investigate how we can combat viral infections.

Circle U. – What's in it for me?

You have probably heard the word "Circle U." over and over again. But what is Circle U.? Why does the faculty management keep talking about Circle U.? What 's in it for me?

What

Relevant links

<u>Circle U. main website</u> Opportunities <u>academic staff</u> <u>AU Circle U. website</u> Apply <u>Health travel grants</u> Sign-up <u>Circle U. newsletter</u> <u>Circle U.</u> is a European University Alliance of nine partner universities collaborating on research, education, and innovation. In addition to Aarhus University, the alliance includes King´s College London, Humboldt-Universität zu Berlin (and Charité), UC Louvain, Université Paris Cité, University of Belgrade, University of Oslo, University of Pisa, and University of Vienna. The long-term

overall aim of Circle U. is to achieve a seamless European University that can foster transnational cooperation among partner universities within the alliance. Or, put another way, to make collaboration among researchers and teachers from the partner universities easier with less rules.

What's in it for me?

Right now, Circle U. is a strategic focus area at Health (and AU), meaning that there is political will to support Circle U. initiatives. For you as a researcher/teacher, the chance of getting support might therefore be higher, if you focus on collaborations involving Circle U. universities. At Health, academic staff can apply for individual, or group travel grants to visit a partner university (*cf.* link in fact box). Note that there are no requirements to the length of the stay, *i.e.*, you can visit a partner university just for a couple of days or longer.

How to get started – ideas for activities

- Identify relevant Circle U. researchers within you research area, initiate (online) meetings and visits (apply for Health travel grant)
- Invite Circle U. guest speakers at existing (online) courses or summer schools
- Offer guest lectures at Circle U. universities
- Arrange joint seminars/symposia/guest lectures with speakers from Circle U. universities
- Arrange PhD and undergraduate student exchange at partner universities
- Establish joint undergraduate/PhD courses or summer schools

For inspiration about how to get started, please check out the fact box. At Health, Associate Professor <u>Christian Wejse</u> has been appointed <u>Academic Chair for the Global Health Knowledge Hub</u>, whom you might also contact for inspiration. We will recommend a bottom-up approach to get started, for instance, by contacting a research group within one's own research area at another Circle U. university and in collaboration with this group establish a summer school or a joint course. An even more bottom-up approach would be to invite international speakers from Circle U. universities to contribute with a guest lecture to an already existing course. Please feel free to contact us at <u>research-networks.health@au.dk</u>, if you need more information.

Do you already have a collaboration with a Circle U. university?

The steering committee of the Inflammation Network would like to map existing collaborations between infection and inflammation researchers at AU and researchers from other Circle U. universities. Therefore, we would appreciate if you would send us an email at <u>research-networks.health@au.dk</u>; if you already collaborate with a Circle U. partner university.

Ongoing infection & inflammation research at AU Health

February 2022

Clinical Associate Professor <u>Bjarne Kuno Møller</u> from Dept. of Clinical Medicine received <u>25 million</u> <u>DKK from the Innovation Fund Denmark</u> to explore the potential of mesenchylam stem cells as a remedy against a variety of diseases, including degenerative and inflammatory bowel diseases.

Professor <u>Martin Roelsgaard Jakobsen</u> and colleagues from Dept. of Biomedicine and collaborators at Dept. of Infectious Diseases at AUH showed in a paper published in <u>EMBO Journal</u> that a specific immune cell, the so-called plasmacytoid dendritic cell, plays a key role in identifying SARS-CoV-2 and initiate multiple immunological reactions, thereby strengthening the immune response against SARS-CoV-2 infection. <u>Read more about the research project</u> that identifies a crucial role but distinct role for the TLR2 and TLR7 (Toll-like receptors).

May 2022

Professor <u>Trine Mogensen</u> and colleagues from Dept. of Biomedicine showed in collaboration with researchers from Newcastle University in a paper published in <u>Journal of Experimental Medicine</u> that 1 out of 1500 Inuit people carry a homozygous mutation of the gene IFNAR2 encoding Interferon Alpha Beta Receptor 2. <u>Read more about the study</u> that revealed a lack of cell-surface expression of the defective receptor for interferon, resulting in increased vulnerability to multiple viruses.

Research assistant <u>Jesper Damsgaard Gunst</u> from Dept. of Clinical Medicine received <u>2.5 million</u> <u>DKK from the Lundbeck Foundation</u> to explore the use of neutralising antibodies in the treatment HIV at an early stage of infections.

Assistant Professor <u>Henricus Mutsaers</u> received <u>10 million DKK from the Lundbeck Foundation</u> to investigate chronic kidney disease in adult patients suffering from non-alcoholic fatty liver disease.

Clinical Associate Professor <u>Christian Lodberg Hvas</u> from Dept. of Clinical Medicine – Hepatology and Gastroenterology, who recently joined the steering committee of the Inflammation Network to support and strengthen research in microbiota, received 9,994,530 DKK from the <u>Novo Nordisk foundation</u> to investigate <u>intestinal microbiota modulation</u> through faecal microbiota transplantation and micronutrient supplementation.

Ten researchers from Health received <u>a grant from the Independent Research Fund Denmark</u>. Amongst them are Professor <u>Martin Roelsgaard Jacobsen</u> from Dept. of Biomedicine who received 6,174,000 DKK for his project that uses CRISPR-Cas gen editing to add anti-cancer properties to stem cells, Associate Professor <u>Lene Niemann Nejsum</u> from Dept. of Clinical Medicine who received 2,879,937 DKK to investigate liver cells in relation to metabolic associated fatty liver disease, Clinical Professor <u>Klaus Krogh</u> from Dept. of Clinical Medicine who received 2,879,206 DKK to explore the use of intestinal bacteria from healthy donors in the treatment of systemic scleroderma and diarrhoea, and Professor <u>Ebbe Briggs Bødtkjer</u> from Dept. of Biomedicine who received 2,877,264 DKK to investigate the mechanisms that limit the immune system's access to and effect on breast cancer.

The so-called <u>ILIT.NU</u> study (Intralymphmatic Immunotherapy), a <u>multicenter study funded by</u> <u>Innovation Fund Denmark</u> and led by Professor <u>Hans Jürgen Hoffmann</u> from Dept. of Clinical Medicine, has successfully recruited, randomised, and treated 575 patients in the past winter. Opposed to the regular vaccination in the arm, the project is giving vaccines through the lymph node in the groin. "We had good treatment success, and no severe side effects" says PhD student <u>Bjarke</u> <u>Hviid-Vyff</u>, who is working on the project.

June 2022

Associate Professor <u>David Olagnier</u> from Dept. of Biomedicine received the <u>ICIS-Regeneron New</u> <u>Investigator Award for Excellence</u> for his extraordinary contributions to international research on interferons.

Rasmus Rugaard Mikkelsen and Associate Professor <u>Tue Wenzel Kragstrup</u> from Dept. of Biomedicine and colleagues showed in systematic literature review published in <u>European Journal</u> <u>of Pharmacology</u> that immunosuppressive drugs specifically targeting the inflammatory signalling molecule interleukin-1 β might also have the potential to treat patients with type 2 diabetes and cardiovascular diseases.

Professor <u>Søren Riis Paludan</u> from Dept. of Biomedicine received the prestigious <u>Rigmor and Carl</u> <u>Holst-Knudsen Award for Scientific Research</u> for his innovative research into how viral infections activate the immune system. Søren has made significant contributions that have paved the way for new vaccines and treatment of diseases, including Covid-19.

Upcoming PhD courses

Below you will find a list of upcoming PhD courses related to infection & inflammation at Danish and NorDoc Universities. AU has entered a <u>national agreement</u> that allows PhD students at a Danish university to attend a subject-specific PhD course free of charge at another Danish university. Furthermore, all PhD students enrolled at the Graduate School of Health can participate in PhD courses in the <u>NorDoc course database</u> at the NorDoc partner institutions free of charge.

Sept. 5-Nov. 11, 2022	Bacterial biofilms and their role in chronic infections (online) (KU)
Sept. 14-16, 2022	<u>Annual meeting in graduate school of immunology 2022</u> (KU)
Oct. 24-27, 2022	<u>From gene to function – Molecular analysis of disease genes</u> (AU)
Nov. 1-Dec. 13, 2022	Basic veterinary virology (KU)
March 6-17, 2023	Infection microbiology: virulence and molecular microbiology (KU)

Job openings within inflammation research

Dept. of Biomedicine, Health, Aarhus University invites applications for a position as <u>Postdoc in</u> <u>CRISPR technology and gene therapy</u>. Application deadline: 7 August 2022.

The Inflammation Network has two open positions for PhD students in the steering committee that will be announced soon at <u>our website</u>.

Current funding opportunities for inflammation research

Neuroscience Academy Denmark (NAD) has open calls for PhD Fellowships. Application deadline is 22 August 2022: <u>16 NAD PhD Fellowships in Neuroscience</u>

The Novo Nordisk Foundation has an open call for Projects in Bioscience and Basic Biomedicine. Application deadline is 6 September 2022: <u>Project Grants in Bioscience and Basic Biomedicine</u>

Aarhus Universitets Forskningsfond (AUFF) has an open AUFF NOVA call. Application deadline is 15 September 2022: <u>AUFF NOVA</u>

Independent Research Fund Denmark has an open call for International Postdoctoral. Application deadline is 15 September 2022: <u>DFF-International Postdoctoral Grant</u>

Independent Research Fund Denmark has an open call for Research Project 1 – Medical Sciences. Application deadline is 23 September 2022: <u>DFF-Research Project1</u>

Independent Research Fund Denmark has an open call for Research Project 2 – Medical Sciences. Application deadline is 23 September 2022: <u>DFF-Research Project2</u>

Independent Research Fund Denmark has an open call for Sapere Aude. Application deadline is 23 March 2023: <u>Sapere Aude: DFF-Starting Grant</u>

European Molecular Biology Organisation has postdoctoral fellowships that enable lab visits worldwide. Application deadline is open: <u>European Molecular Biology Organisation – postdoctoral fellowships</u>

Upcoming events

August 31, 2022	2 nd Inflammation Network Day
September 1, 2022	Infection & Inflammation Day, Dept. of Biomedicine
March, 2023	3 rd Inflammation Network Day

Relevant links

The Research Support Office publishes a newsletter monthly. Register for and read the newsletter at the <u>Research Support Office website</u>.

Circle U. publishes a newsletter monthly. Register for and read the Circle U. newsletter

Link to newsletter archive at the <u>Inflammation Network website</u> Link to opportunities for academic staff at the <u>main Circle U. website</u> Link to <u>AU Circle U. website</u> and <u>Health travel grants</u>

Input for the newsletter

The Inflammation Network would like to share and promote all relevant news and activities within the network via our newsletter. The newsletter is published approx. four times a year. We therefore encourage you to submit any input and news of interest to the network (e.g. publications, grants, conferences, seminars, open positions) to <u>research-networks.health@au.dk</u>. Deadline for input to the next newsletter: **1 October 2022**