



News from the chair

We are pleased to announce the July issue of the Inflammation Network newsletter with several topics, updates, and important meeting dates.

Our latest Inflammation Network Day took place on March 8th. To make it easier for clinicians to attend, the Inflammation Steering Committee decided to move this year's annual meeting to Aarhus University Hospital (AUH) and transform it into a late afternoon meeting. We believe that one of the network's foremost duties is to bridge the yellow buildings in the University Park and the red buildings in Skejby. By arranging this annual meeting today, the Inflammation Network fulfils this aim by bringing together researchers from different academic disciplines and clinicians from different medical specialities – to create synergy.

Three new initiatives:

- On February 8th, we launched our new LightRail Seminar series with a seminar on the Human Microbiome. The next LightRail symposium will be held on January 18, 2024, with the topic Infection and inflammation in the CNS.
- The Inflammation Network's Interview Series – a new initiative, which includes interviews with 2-3 researchers from the Inflammation Network in each issue of the newsletter. The idea is to provide members of the Inflammation Network with an overview of local expertise covered by the network and it's academic breadth, and thereby promote knowledge sharing and interaction across disciplines and faculties at AU and AUH.
- Finally, as a new initiative we have included two PhD students in the steering committee with the aim to promote inclusion of young researchers in the network and also to receive valuable input to our initiatives and activities in research, education, and networking! We are glad to welcome [Lotte Lindgreen Eriksen](#) and [Fernando Valentim Bitencourt](#) (see Network's Interview Series below). The contributions by the PhD students include booth at PhD Day to attract PhD students, participation in Circle U. AU meeting, and co-chair at annual meeting.

With best wishes for a wonderful summer (vacation)

Trine Mogensen, Managing Professor of the Inflammation Network

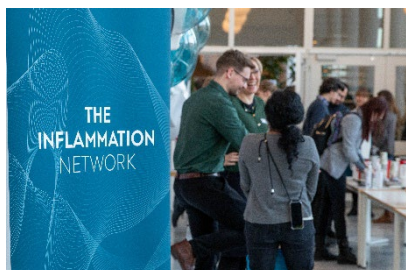
Annual Inflammation Network Day | 2023 & 2024

On March 8th 2023, around 140 researchers from different departments, and units of Aarhus University and Aarhus University Hospital met for the [3rd Inflammation Network Day](#) to share their latest research within the fields of infection and inflammation. The meeting included excellent keynotes by Dr. Lena-Christin Conradi from Göttingen University Medical Center in Belgium and Professor Margaret Sällberg Chen from Karolinska Institutet in Sweden as well outstanding talks by local researchers from Aarhus University (AU) and the hospital departments, including Professor [Ellen Margrethe Hauge](#), Associate Professor [Christian Lodberg Hvas](#), Professor [Ole Schmeltz Sogaard](#), and Professor [Christian Kanstrup Holm](#). Least but not less importantly, the day also featured exciting flash talks by younger researchers. Congratulations to PhD student [Kristian Wiborg Antonsen](#), who was awarded the best flash talk award for his talk on “Pro-inflammatory polarization inhibits macrophage phagocytosis of cancer cells in vitro”.



**6 March
2024**

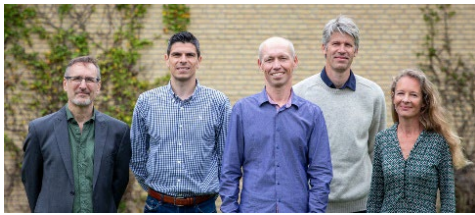
Please mark your calendar and save the date for the next Inflammation Network Day, which has been scheduled for **6 March 2024**. Stay updated at our [website](#).



PhD students can obtain ECTS credits when presenting at our annual meeting

We would like to bring your attention to the possibility for PhD students presenting at our Inflammation Network Day to obtain ECTS credits. This presentation can be in the form of either a flash talk or a poster presentation. When presenting at our annual meeting, 1 ECTS credit can be granted (a maximum of 1 ECTS credit per year for conference activity). [Read more about the criteria](#) for obtaining ECTS credits at conferences and meetings.

Official opening of the Centre for Immunology of Viral infections (CiViA)



The DNRF (Danish National Research Foundation) research center CiViA, which is based at the Department of Biomedicine at AU and will run for at least 6 years with a DKK 60 million budget, has been inaugurated. The centre is headed by Professor Søren Riis Paludan and consists of research groups from AU and the Technical University of Munich in Germany:

- Professor [Søren Riis Paludan](#), Dept. of Biomedicine, AU
- Professor [Trine Hyrup Mogensen](#), Dept. of Biomedicine, AU & AUH
- Professor [Jacob Giehm Mikkelsen](#), Dept. of Biomedicine, AU
- Associate Professor [David Olganier](#), Dept. of Biomedicine, AU
- Professor [Andreas Pichlmair](#), Technical University of Munich, Germany

Please visit the [centre website](#) to read more and subscribe to the CiViA newsletter.

A visit to the Charité – a Circle U. visit

One of Europe's largest hospitals, the Charité, is on several Berlin campuses. With its long history, it remains one of medical and other health-related research powerhouses. As especially watchers of the German television series with the eponymous name will know, the Charité was the site of significant discoveries in immunology and infectious diseases, with researchers such as Paul Ehrlich, von Behring, and Robert Koch on the staff. Of course, Ehrlich described on theoretical and experimental grounds antibodies ("Antikörper"), von Behring initiated early immunotherapy against infectious diseases, and Koch's postulates defined the principles of establishing infectious microbes as the etiological agents of disease.

In late April, I was a member of a small delegation from the Dept. of Biomedicine, AU – Health, led by [Hanne B. Møller](#). We were invited through the Circle U. programme to exchange views and insight on medical education and strengthen the possibility of student exchange. Educational programs are never easy to match, but an opening was found in our BSc thesis training, where both the duration and topics seem reasonably similar in both institutions to permit such an exchange.

But why then do it? Science is international, and new thoughts should be sought out both by younger and older researchers. Writing a short dissertation in Aarhus may work well enough. But having the offer to work in the intense environment of the Charité should be a welcome expansion of horizons for the Aarhusian student to meet with peers from around the World. And, not at least, in a setting

that has answered the question “What has science got to do with it?” in medical training for so long. In Aarhus, our German visitors will probably find uniquely close contact with supervisors and other staff across the university and hospital campuses. Charité and Aarhus University are strong in research in many aspects of inflammation and infectious diseases. Our collaboration can further increase student interest and work in these areas.

This collaboration intends to open up European contacts in our medical education. Berlin is not far away, and our host went out of their way to greet us with a friendly reception and help. I highly recommend these opportunities. If you want more information, please do not hesitate to contact me.

Thomas Vorup-Jensen, Dept. of Biomedicine

Circle U. Travel Grant & Seed Funding Scheme 2023

Travel Grants: You now have the opportunity to apply for a travel grant of DKK 20,000 for visiting colleagues at a university in the Circle U. alliance. The travel grants are part of the faculty's strategic efforts to support internationalisation with a focus towards education and the active participation in the Circle U. alliance. The grants are a supplement to other funding opportunities, such as Erasmus scholarships for employees. Read more about Circle U. and how to apply at the [faculty Circle U. website](#).

Seed Funding Scheme: Staff and students can apply for support (EUR 5,000-10,000) for projects or activities involving at least three Circle U. universities. The scope of what is supported ranges from organising lectures to conducting preliminary research activities, examples including:

- Supporting learning and training activities
- Developing joint courses or programmes
- Organising public lectures
- Supporting student-driven learning activities

Read more at the [Circle U. website](#). Application deadline: **15 October 2023**

The Inflammation Network's Interview Series – a new initiative

The Inflammation Network has recently set out to create a new initiative, consisting of interviews with the network's members. This will hopefully help us, as well as our readers, to gain an understanding of what our network consists of and the breadth of our membership community.

The interview series will be an ongoing element of the newsletter. In our first interview series we have interviewed three members of our steering committee. You can read about their research,

implications of their research, and what it means to be part of the Inflammation Network's steering committee below.



Lotte Lindgreen Eriksen, 28

PhD student, Dept. of Hepatology and Gastroenterology, AUH

Member of the steering committee of the Inflammation Network

Can you give us an insight in your research?

For the past 5 years, I have been affiliated at the Department of Hepatology and Gastroenterology at Aarhus University Hospital. My research has focused on patients with liver diseases, the gut-liver interactions, and the immunological impairment of these patients. I started as a research year student where I spend time both at Department of Hepatology and Gastroenterology and Department of Biomedicine in the Deleuran lab. Since the summer 2020, I have been a PhD fellow at the department where I am working on a randomized, placebo-controlled, double-blinded, multicenter trial examining the effect of faecal microbiota transplantation (FMT) for patients with liver cirrhosis.

What do you hope to gain from this research?

We hope this treatment will improve the prognosis and quality of life for the patients. Further, the study - and my PhD - will examine the mechanistic effects of FMT on the gut microbiota, gut barrier function, and immune system.

How have you experienced collaborations in your career?

During my PhD time, I have luckily stayed a part at the Deleuran lab and learned a lot from their immunological expertise. This collaboration has added great value to my project because of their feedback and suggestions for improvements.

Why did you decide to apply for the network's steering committee?

The cross field between clinical and immunological research can be challenging. I believe many other young researchers can benefit from collaborations like the one I have been a part of. This was one of my main reasons for applying for the position in the steering committee of the Inflammation Network. This network can help young – and, also, more senior – researchers meet fellow researchers from across the university to share ideas, receive feedback on projects, gain new collaborators, and together become better researchers. As a member of the steering committee, I can help make the network more accessible to young researchers and make it easier for them to broaden their network and find new collaborators.



Thomas Vorup-Jensen, 51

Professor, Dept. of Biomedicine

Member of the steering committee of the Inflammation Network

Thomas focus areas are immunology, the nanoscience of immunology, chemical principles of target recognition in the immune system, structure-function relationship in proteins of the immune system, and the role of the immune system in neurodegenerative diseases.

Can you give us an insight into your research?

We have developed an assay for characterizing nanoproteinparticles in blood. We now wish to understand how these particles integrate with the immune system. Specifically, we are examining the role of complement proteins in systemic lupus erythematosus and amyloids as ligands for Beta-2 integrins. Our results suggest that these nanoparticulate materials activate myeloid cells in blood, with possible consequence both for the cardiovascular and central nervous system.

Our scientific efforts are most translational. The outcome will both help a basic understanding of complex inflammatory processes as well as pave the way for better pharmaceutical targeting of inflammatory settings. In this way, we hope that our discoveries will help targeting inflammation-modulating therapy to diseases with a known inflammatory component as well as acting to bring these therapies into diseases where the inflammatory component is currently less understood.

Characterizing especially protein components of the immune system are quintessential to understanding cellular adhesion and regulation of immune responses in the blood. By use of binding experiments and advanced analysis of the interactions, we can deconstruct heterogeneous interactions into ensembles of single interactions. This offer a new view of how the immune system recognizes targets and how inflammation is initiated. A part of our work also involves monoclonal antibodies, both for characterizing cellular adhesion and as tools for anti-inflammatory therapy. By better understanding their modes of target recognition, we may be able to employ these powerful medicines to diseases where no therapy exists today.

What are the potential implications for your research?

Our research relies on instruments and theories from many parts of science. By doing so, we have had the chance to generate insights not obtainable through more conventional methods. Especially by seeking to understand and characterize the immune response as a heterogeneous composition of binding processes, our work wants to firmly root immunology in basic chemistry, especially with regard to protein-ligand interactions, both in solution and at the cell surface.

What are your thoughts on being part of the Inflammation Network & the steering committee?

Aarhus University, Health can benefit from the Inflammation Network by establishing contacts between researchers with like-minded, but not identical, scientific interest, mutual help is available to understand the complex reactions of inflammation. Especially for researchers with a translational motivation, the network also offers direct contact to clinicians, thereby strengthening an understanding of manifestations of inflammatory disease. The composition of the steering committee reflects the many types of researchers involved in inflammation research at AU Health. In this way, the committee is capable of making and promoting events reaching out to this audience.

What is the next big thing on the drawing board in the steering committee?

The Networks need to integrate better with the PhD training at our faculty. The Inflammation Network may constitute a thematic platform for the training of the students.



Fernando Valentim Bitencourt, 28

2nd year PhD student at Dept. of Dentistry and Oral Health, and
Steno Diabetes Center Aarhus

Member of the steering committee of the Inflammation Network

Can you give us an insight into your research?

I work with the role of non-communicable diseases, including diabetes, in the destructive oral inflammation, since they share a “dysfunctional” immune response. The altered response may reflect increasing levels of weight gain, social disparities, alcohol and tobacco consumption, poor nutrition, and others in our society.

What are the potential implications for your research?

Identifying and intervening in them will reduce the growing health disparities in the population, but to which extent is still unknown. A potential consequence of the diabetes and an increased inflammatory background is a heavier burden of oral diseases that negatively impact the quality of life of people with diabetes, as health detrimental behaviours result from a combination of psychosocial, economic and health issues. Given the various common facets of diabetes and oral inflammation, including biological, behavioural and psychosocial, my PhD project has a fundamental role in the consolidation of international partnerships and networks and strengthening of collaboration projects in this field.

What made you join the Inflammation Network?

I have been involved in different tasks from the moment I entered Dentistry School. It's been fantastic to get to work with people from other academic backgrounds, such as the PhD Association (Faculty of Health), PhD Day Organizing Committee (OC), and the Steno Diabetes Center Aarhus. Because of these spaces I am now interested in being part of the Inflammation Network Steering Committee.

What can you gain from the Inflammation Network?

I can't reiterate how impactful the students' involvement in the Inflammation Network can be. We can build connections with other PhD students, professors, researchers, and leaders from different departments of Aarhus University. I consider that having academic experiences and representative positions at the Inflammation Network shapes my life as a PhD student. Personally, participating in these meetings have helped me navigate the complexities of the education and research. This has also helped me develop the ability to collaborate, build network, carry out research, think critically, and navigate through different components of our team. For being a welcoming and very fertile space for academic development, I encourage other PhD students to support and get involved in the Inflammation Network.

How to suggest “Paper of the Month” for the website

Every month the Inflammation Network selects one paper as their chosen “Paper of the Month” for publication at the website. By selecting “Paper of the Month”, the steering committee wants to highlight interesting papers as well as highlighting the academic breadth of the Inflammation Network.

Read more about “Paper of the Month” at [our website](#). If you have a suggestion for the next “Paper of the Month”, please send an e-mail to research-networks.health@au.dk, explaining in approx. 1000 characters:

- Why this is paper important (i.e. your motivation of choosing the paper)?
 - How this paper challenge previous concepts and/or advance the inflammation & infection field?
 - The main findings of the paper
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Intralymphatic Immunotherapy (ILIT); innovative treatment of allergy

Innovation Fund Denmark has awarded a Grand Solutions project to Professor [Hans Jürgen Hoffmann](#) to mature ILIT for commercialization with co-funding from AU and AUH. Current options for Allergen Immunotherapy have struggled to gain acceptance by patients because they last 3 years and are associated with rigid regimens and numerous side effects. ILIT lasts 2 months and is associated with few side effects. We recently reviewed the clinical studies of ILIT ([Current Opinion in Allergy and Clinical Immunology: December 2022 – Volume 22 – Issue 6 – p 387-395](#)).

Project ILIT.NU has randomized 514 patients with grass pollen allergic rhinitis (among 2100 prospective patients who enrolled in the online screening process within a month) at university clinics in Aarhus, DK, Linköping, SE and Zurich, CH, and also at ENT specialist clinics in Hobro, Randers and Fredericia, DK. To accommodate the large patient flow in Aarhus (more than 300 patients are recruited, randomized, and treated at AUH), we have used office space in C211 to recruit patients, and the area between auditorium A and Auditorium B at Aarhus University Hospital for treatment of patients (remember the sign “ILIT clinic” in the revolving door to the auditoria?). Now the project is housed in newly built 4 clinic rooms adjacent to the Allergy Center AUH in G204.

Consultant, associate professor [Johannes Schmid](#) is PI for ILIT.NU, and medical PhD student [Bjarke Hviid-Vyff](#) and nursing PhD student [Anne Poder Pedersen](#) are associated with the project. We have followed patients in 2021 without treatment, and then randomized and treated patients in the winter of 2021/2022. Patients in Scandinavia are treated with ALKs Alutard, and patients in Switzerland are treated with Allergy Therapeutics Polvac. Now we follow patients for two years with combined medication and symptom score in the grass pollen season with an extensively digitized CRF as well as skin prick test and serum IgE. Where completion with regular AIT is around 33%, we have a completion of 99.3%, and 82% of patients experienced no side effects at the injection site, and 97% no systemic side effects. In regular AIT there are significantly more frequent and more severe side effects.

We now eagerly await results and look forward to investigating mechanisms for this precise change in immune response that promises to ease the daily lives of 20% of European residents.

Hans Jürgen Hoffmann, Dept. of Clinical Medicine

Ongoing infection & inflammation research at AU Health

January 2023

Associate Professor [Marina Romero-Ramos](#) from Dept. of Biomedicine received [DKK 5 million from the Novo Nordic Foundation's Exploratory Interdisciplinary Synergy Programme](#) to explore the

interconnections of the Parkinson's disease and the gut microbiome, including the anti-inflammatory and neuroprotective potential of advanced microbiome therapeutics.

February 2023

PhD student [Victor Næstholt Dahl](#) from Dept. of Public Health and Dept. of Clinical Medicine – Infectious Diseases received an [Elite Research travel scholarship from the Ministry of Higher Education and Science of DKK 200,000](#) to study the significance of nontuberculous mycobacteria, which is rising globally, at the Radboud University Medical Centre in the Netherlands.

March 2023

PhD student [Thomas Emmanuel](#) from the Dept. of Clinical Medicine – Dermatology and Venereology received the [Anna and Dagny Hjerrild Foundation scholarship of DKK 200,000](#) for his use of a new and so-called Digital Spatial Profiling (DSP)-Geomix method to study psoriasis that avoids animal testing.

Associate Professor [Claus Johansen](#), who is affiliated with the Dept. of Dermatology, has been appointed Professor at the Dept. of Clinical Medicine. [Read more about his research](#), which is centred on the molecular mechanisms underlying the development of several skin diseases, including psoriasis.

Associate Professor [Lene Niemann Nejsum](#) has been appointed Professor at the Dept. of Clinical Medicine. [Read more about her research](#), which is centred on the role of aquaporins in health and disease, including cancer and kidney diseases.

April 2023

Associate Professor [Rikke Nørregaard](#) has been appointed Professor at the Dept. of Clinical Medicine. [Read more about her research](#) that aims at improving treatment options for chronic renal diseases.

June 2023

Fourteen researchers from Health received [a grant from the Independent Research Fund Denmark](#). Amongst them are Professor [Christian Kanstrup Holm](#) from Dept. of Biomedicine who received DKK 2,865,168 for his project that studies a previously unknown section of the immune system that can fight viral infections incl. influenza and Covid, Professor [Robert A. Fenton](#) from Dept. of Biomedicine who received DKK 2,879,377 to examine the significance of potassium at molecular level for high blood pressure, Professor [Rikke Nørregaard](#) from Dept. of Clinical Medicine who received DKK 2,852,352 to explore the role of specific PGE2 receptors in fibrosis in the kidneys, Professor [Ole Schmeltz Søgaard](#) who received DKK 2,877,985 to explore the characteristics of T-cells that enable them to fight HIV infection, Professor [Thomas Vorup-Jensen](#) who received DKK 2,853,219 to investigate the underlying mechanisms of protein fibrillation in patients suffering from

phenylketonuria, and Professor [Peter Nejsum](#) who received two grants of DKK 6,187,824 and DKK 2,827,728 to investigate the applicability of extracellular vesicles as a natural delivery system of drugs and the response of the innate immune system to parasitic worms, respectively.

Postdoc [Mette Julsgaard](#) from Dept. of Clinical Medicine received an [Emerging Investigator grant of DKK 9,996,490 from the Novo Nordisk Foundation](#) to establish her own research group that will study inflammatory bowel disease and other autoimmune disorders.

Current funding opportunities for inflammation research

Below are examples of current funding opportunities. Please visit the [Research Support Office website](#) for a complete list and sign up for their newsletter to receive a monthly overview.

- Neuroscience Academy Denmark (NAD) has open calls for [16 NAD PhD Fellowships in Neurosciences](#). Application deadline is 11 August 2023.
 - The Novo Nordic Foundation has an open calls for [Investigator Initiated Trials](#) and [Clinical Accelerator Programme](#). Application deadline is 16 August 2023.
 - The Lundbeck Foundation has an open call for [Lundbeck Foundation Fellow](#). Application deadline is 31 August 2023.
 - The Novo Nordisk Foundation has an open call for [Exploratory Interdisciplinary Synergy Programme](#). Application deadline is 31 August 2023.
 - The Leo Foundation has an open all for [Research Grants](#). Application deadline is 31 August 2023.
 - The Novo Nordisk Foundation has an open call for [Project Grants in Bioscience and Basic Biomedicine](#). Application deadline is 5 September 2023.
 - European Cooperation in Science and Technology (COST) has an open call for [COST Action proposals](#). Application deadline is 25 October 2023.
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Upcoming events

14-15 September 2023	Infection & Inflammation Day, Dept. of Biomedicine
23 November 2023	9th Aarhus Immunotherapy Symposium (AIS9)
18 January 2024	2 nd LightRail Seminar “Infection and inflammation in the CNS”
6 March 2024	4 th Inflammation Network Day

Relevant links

The Research Support Office publishes a newsletter monthly. Register for and read the newsletter at the [Research Support Office website](#).

Circle U. publishes a newsletter monthly. Register for and read the [Circle U. newsletter](#)

Link to [AU Circle U. website](#) and [Health travel grants](#)

Link to newsletter archive at the [Inflammation Network website](#)

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 3-4 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 research-networks.health@au.dk. Deadline for input to the next newsletter: **31 October 2023**
