

# Annual report 2020

## Greenland Centre for Health Research

Institute of Nursing and Health Research, Ilisimatusarfik -  
University of Greenland



---

## Content list

Preface from the Head of the Institute .....	2
Letter from the chair .....	3
Newly appointed professor .....	4
Greenland Centre for Health Research .....	5
Collaborative relationships.....	7
Centre Activities in 2020 .....	8
PhD Students .....	13
Newly assigned researchers .....	16
News from researchers .....	17
Upcoming activities in 2021 .....	24
Publications in 2020 .....	25
Publications from previous years.....	28
Appendix: Grønlandsmedicinsk Selskab 50 år .....	38

In this annual report, the advisory committee is presenting its scientific activities conducted in 2020. Greenland's Centre for Health Research aspires this annual report to serve as an overview of health research in and to be an inspiration for future research projects in Greenland.

---

## Preface from the Head of the Institute

The year 2020 has indeed been a special year with many restrictions. Therefore, I am specially delighted to present this thorough overview report of the activities at Greenland's Centre for Health Research at the Institute of Nursing and Health Research. Thus, despite the many restrictions, the center has continued its development and we can congratulate one more professor. I will also use the opportunity to welcome Steno Diabetes Center Greenland, we are looking very much forward to the collaboration in the future.

I also want to share my gratitude for the good collaboration with Greenland's health care system as well as the municipalities.

We continue to focus on increasing this development and are looking forward to an exciting new year, hopefully with less restrictions, in collaboration with both internal and external partners.

With kind regards

Anna Kleist Egede

Head of Institution of the Institute of Nursing and Health Research

---

## Letter from the chair

I am pleased to present to you our annual report of 2020, which provides an overview of another active year despite the Covid-19 situation.

The Covid-19 pandemic has been a stress-test for resilience across Greenland and the Arctic, particularly for our health and wellbeing. The results of this test have been uneven, for example the Arctic's remoteness has been a benefit in some areas, but it has hindered readiness and response in others. Around the region, we have heard stories of both resilience and vulnerability, the lessons learned and how resilience can strengthen us moving forward.

Despite Covid-19, we succeeded together with our research colleagues to complete an international PhD course at the Greenland Center for Health Research at Ilisimatusarfik. The participants came from Canada, Russia, the USA, Denmark, Sweden, Norway, the Faroe Islands and Greenland. The students and lecturers from Nuuk met in the auditorium at Ilisimatusarfik, while students and lecturers outside Greenland tuned in via the course's virtual platform. There was a total of 21 participants, which was arranged by the Greenland Center for Health Research at Ilisimatusarfik on the basis of a grant from the University of the Arctic. "I am amazed at how well everything worked out when being so many together online. It is a fantastic group of students who have engaged and openly thrown themselves into discussions about their own and their fellow students' projects", said senior researcher at Ilisimatusarfik, Christina Viskum Lytken Larsen.

The Lancet commission on arctic health has also been affected by the Covid-19 pandemic, but the work and the report will culminate with an international roadmap for improving Arctic Health, and we will identify key priorities for further research and advocacy to be done in conjunction with Indigenous peoples and other communities. The vision, strategy, and evidence presented will serve as a catalyst for future work in Arctic Health, furthering policy development across sectors, and allowing for ongoing adaptation as new circumstances arise.

The relation between Steno Diabetes Center Greenland (SDCG) and Greenland Center for Health Research is important for health research in Greenland. Strengthening research is one of the SDCG's core efforts. Therefore, the continuing collaboration will be expanded.

Greenland's natural conditions, the rapid social changes taking place in the Greenlandic society, and the inequality seen over the expired years, place great demands on people in Greenland and create unique health challenges. The nature and extent of health challenges differ from those of other countries.

The health care efforts in Greenland must therefore be based on a combination of general medical knowledge and knowledge generated through studies of health conditions in Greenland's population. Finding and applying a solution to Greenland's health problems must take place on the country's own premises under the participation of Greenland's own healthcare and health research system.

The Greenland Center for Health Research promotes and strengthens Greenlandic health research for the benefit of the Greenlandic population and society. This is done in collaboration with Greenlandic healthcare system and society through research training and capacity building, and by promoting high quality research through solid network-building.

*Gert Mulvad*

---

## Newly Appointed Professor



In May 2020 RN, MHH, PhD Lene Seibæk was appointed professor at Institute of Nursing and Health Science at Ilisimatusarfik.

In continuation of her work as clinical cancer nurse, Lene has led, completed, and published a large number of research projects within the fields of nursing and healthcare. As researcher with a close connection to clinical practice, Lene is focusing on patient care and pathways, reflecting a holistic approach to patient and family. In addition, Lene has developed and tested methods for increased citizen, patient and relative involvement, using both qualitative and quantitative research methods.

Lene supervises and teaches nurses and doctors at bachelor, master's and PhD level, performs assessment tasks, prepares and assesses fund applications, and take part in the development of university education courses and career paths.

In addition, Lene is associate professor at Aarhus University in Denmark, and senior researcher at Department of Gynaecology and Obstetrics, Aarhus University Hospital. Further, she is affiliated with the Centre for Patient Involvement Research (ResCenPI).

In close collaboration with GCHR, Lene is currently concerned with development and support of research and research based teaching in the Department of Nursing and Health Sciences.

---

# Greenland's Centre for Health Research

## Our vision

---

Improving the health status in Greenland through initiation and coordination of health research.

## Our mission

---

- Increasing coordination among research institutions
- Developing, exchanging, disseminating and applying scientific knowledge
- Creating national and international networks
- Building local capacity through PhD programs and mentoring
- Improving community involvement and local partnerships

## Our objectives

---

The aim of the Centre is to enhance cooperation between researchers from other countries and health professionals in Greenland, to facilitate research cooperation within Greenland, and to facilitate the interaction of researchers from other countries with the Greenland community at large. The Centre is active in teaching at all levels from classroom teaching of nursing students to supervision of PhD students. In a longer perspective, the Centre will work for the establishment of data archive and archive of specimens collected in Greenland.

## The Centre's history

On the 28th of May 2008 Greenland's Centre for Health Research (GCHR) was established. Back then a number of research-interested professionals working in Greenland's health care system had been discussing how a health research institute physically placed in Greenland was lacking. The ambition was that such an institute could facilitate the transfer of competencies to Greenland, be the base for PhD students, provide affiliated researchers with a Greenlandic identity for their international research network, and provide evidence-based content for the nursing education, health professionals' training and perhaps at some point arctic MPH and PhD educations. Since 2008, seven PhD students have graduated from the Centre and currently eight PhD students are affiliated with the Centre.

## Our partnerships & networks

The Centre works to forge links between research centres, independent scholars and students as well as health professionals in Greenland. GCHR is organised within the Institute of Nursing and Health Research at the University of Greenland. We collaborated with the Greenland Institute of Natural Resources on building project for the Centre. The Centre has signed *Memorandum of Understanding* with Canadian Institute for Circumpolar Health in Yellowknife (North West Territories) and the UArctic.

The Centre cooperates with:

- Centre for Care Research at the Arctic University of Norway (UiT)
- Arctic Transatlantic Telehealth Research Network

Furthermore, GCHR is co-organisation of NUNAMED, part of Thematic Network on Health and Well-being in the Arctic under University of the Arctic, and member of the Circumpolar Health Research Network.

---

## Advisory Board

---

- **Gert Mulvad**, MD, GP, Dr. h.c. (Chairman)
- **Anna Kleist Egede** (Vice chairman) Head of institute - Institute of Nursing and Health Science
- **Berit Bjerre Handberg**, Chief physician - Board of Health and Prevention
- **Tine Pars**, PhD. Head of Department of Health
- **Sten Lund**, Research coordinator at Department of Research and Environment
- **Henrik L. Hansen**, National Doctor at the national doctor's Office
- **Lene Seibæk**, Professor - Institute of Nursing and Health Science
- *Appointed:* **Michael L. Pedersen**, MD, GP, PhD, Dr. Med. - Greenland Centre for Health Research

### Researchers

- **Gert Mulvad**, MD, GP, Doctor h.c.
- **Lise Hounsgaard**, PhD, RN, Professor
- **Lene Seibæk**, PhD, RN, Professor
- **Aviaaja L. Hauptmann**, PhD, Postdoc
- **Ingelise Olesen**, Research Coordinator

### PhD students

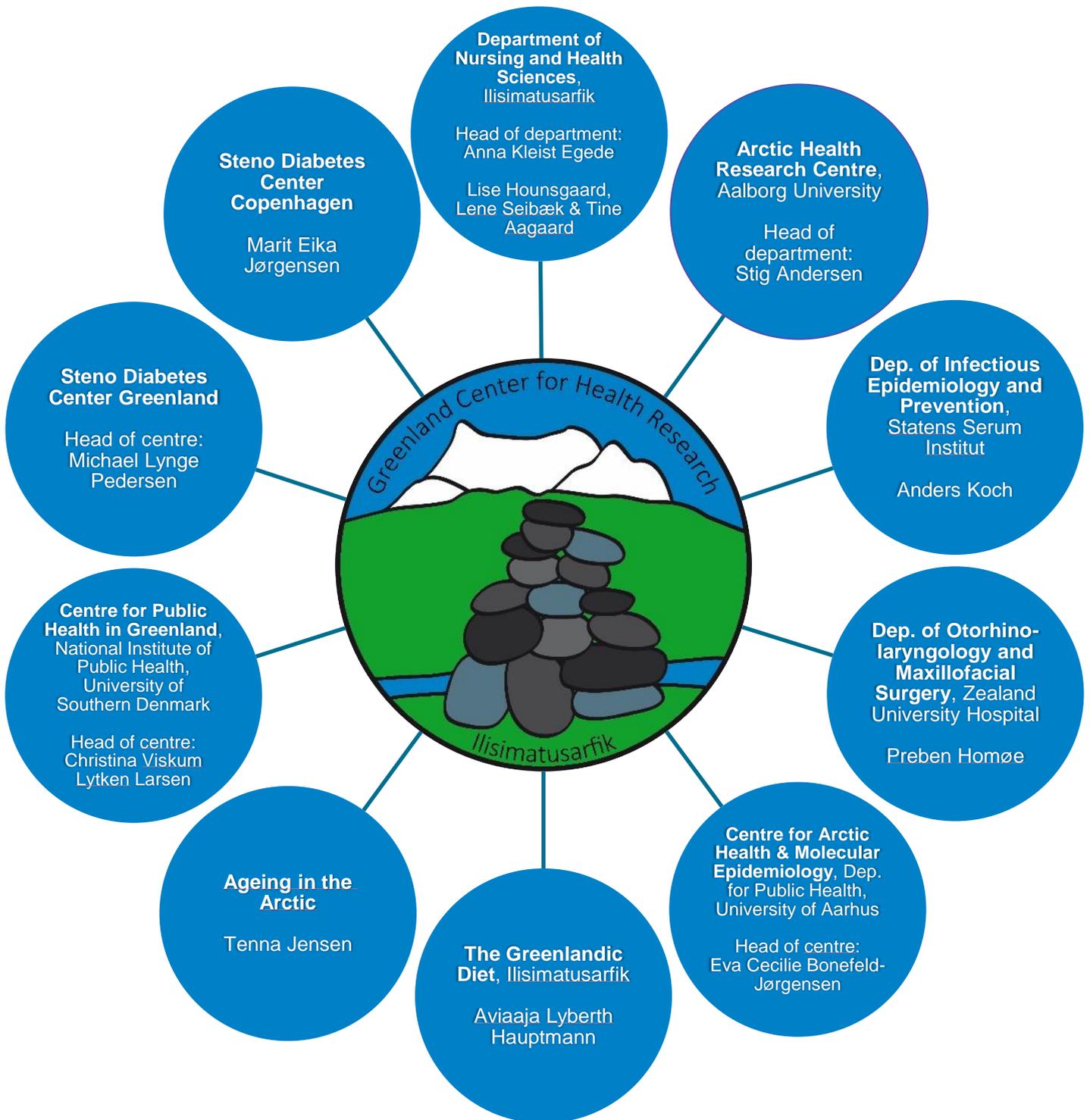
- **Anna Maria Anderson**, MD
- **Christine Ingemann**, BScN & (Res)MSc Global Health
- **Hjalte Erichsen Larsen**, MD
- **Ivalu Sørensen**, MSc Public Health
- **Julie Flyger Holflod**, PhD student
- **Mette M. Schlütter**, MA Anthropology
- **Nadja Albertsen**, MD
- **Paneeraq Noahsen**, MD
- **Trine Jul Larsen**, BScN & MSc Public Health

### Assigned researchers

- **Anders Koch**, MD, PhD, Professor, MPH
- **Christina VL Larsen**, PhD, cand.scient.-soc., Senior Advisor, Director of Centre for Public Health in Greenland
- **Eva C. Bonefeld-Jørgensen**, PhD, Professor, Director of Centre for Arctic Health & Molecular Epidemiology
- **Karen Bjørn Mortensen**, MD, PhD
- **Karsten Rex**, MD, GP, PhD
- **Marie Balslev Backe**, PhD, Research Coordinator SDCG
- **Marit E. Jørgensen**, MD, PhD, Professor
- **Michael Lynge Pedersen**, MD, GP, PhD, Dr. Med. Associate Professor
- **Nils Skovgaard** PhD
- **Preben Homøe**, MD, PhD, Dr. Med., Professor
- **Stig Andersen**, MD, PhD, PGCME, Clinical Professor, Department Head
- **Tenna Jensen**, PhD, Associate Professor
- **Tine Aagaard**, PhD, Senior Researcher

Contact information and biographies of the researchers associated with GCHR can be found on our homepage ([www.uni.gl](http://www.uni.gl)).

## Collaborative relationships



---

## Centre activities in 2020

Gert Mulvad, the chairman of the GCHR's advisory board, participated and contributed in several cross-arctic events in 2020. Here a short overview of these activities.

### **Workshop on Contaminants in Wildlife and Humans (AMAP Human Health)**

In June 2020, Gert Mulvad discussed Inuit food security during an AMAP Human Health workshop. He described how Inuit food security comprises a range of interconnecting elements covering physical and mental health, child development, and identity, among others. Gert Mulvad stated that there is a concern in Greenland regarding the transition to a greater consumption of imported food, which is creating health problems in the population. There is much local food in Greenland that has health benefits, but there is a problem with environmental contaminants that requires global solutions. The local food is more nutritious than imported food, but there is a delicate balance with regard to its contaminant levels. This was further highlighted by other workshop participants representing the Lancet Commission on Arctic Health and NERISA – a Arctic Food Cluster network in Greenland highlighting.

Some of the recommendations to create greater food security in Greenland include: increasing the general knowledge about which foods are healthy and about proper hygiene for food storage and handling; increasing general knowledge of good cooking methods; and reduction of pollution to promote food security.

### **Part of review committee of Sentinel North**

As a leading authority on food security and the health and wellbeing of populations living in the changing Arctic, Gert Mulvad has been invited to be a member of the Sentinel North's international scientific review committee (SRC).

#### *About the Sentinel North program*

In 2016, Université Laval (Quebec City) received a \$CAD 98 million grant from the Canada First Research Excellence Fund in support of its Sentinel North program. In a context of accelerating climate change and social and economic development in the arctic and subarctic regions, Sentinel North allows the institution to build on its existing research strengths to conduct transformative research, develop innovative new technology, train the next generation of transdisciplinary researchers and improve our understanding of the northern environment and its impact on human beings and their health.

Entering the second Phase (2020-2025) of the program, a major \$CAD 10 million Call for proposals was launched in the Fall of 2019 to solicit ULaval's research community to join forces with its collaborators and partners and submit proposals for concerted, transdisciplinary projects that will address one of 3 priority research axes:

- Axis 1. Impact of environmental change on northern ecosystems and infrastructure
- Axis 2: Environment-health interactions in the North
- Axis 3: Data analysis, predictive modelling and knowledge transfer

## The Arctic Youth Network Webinar on: Wellness, Strength and Balance in a Changing North

In 2020 the Arctic Youth Network organized a webinar series, where Gert Mulvad was invited to speak on the “Wellness, Strength and Balance in a Changing North” session in October. In the session initiatives and best practices that youth can take to improve their mental health were presented. These include day-to-day activities that contribute to healthy lifestyles as well as recommended steps to access care in their respective regions. The session speakers showcased successful youth-centric initiatives that will reduce mental health stigma and provide wellbeing resources in circumpolar communities.

The Arctic Youth Network Webinar Series is part of the larger AYN engagement plan that enables youth from around the world to learn about new projects, gain insight into new ideas or skills, and contribute their experiences.



## Arctic Resilience Forum: Human Health and Pandemics. Wed., Oct. 28, 2020

In October 2020, Gert Mulvad contributed to the ‘Human Health and Pandemics’ session at the Arctic Resilience Forum. During this session the Covid-19 pandemic was discussed, which has been a stress-test for resilience across the Arctic, particularly for the health and wellbeing of Northerners. The results of this test have been uneven – for example the Arctic’s remoteness has been a benefit in some areas, but it has hindered readiness and response in others. Around the region stories of both resilience and vulnerability have been told, but throughout it all the unique strengths of the North show through. Lessons-learned so far and how resilience can best be supported going forward were discussed.



---

## **Activities under the UArctic Thematic Network on Health and Well-being in the Arctic**

Many of the activities have continued despite the Covid-19 situation, e.g. courses and webinars. The online PhD course organised by the Greenlandic Center for Health Research, University of Greenland, in October 2020 will open new possibilities for making courses from remote areas in the future. Furthermore, it will enable new capacities in remote areas for organising and hosting teachers from other remote areas for teaching activities.

Due to the Covid-19 situation, more 'stable' studies were preferred instead of fieldworks within the application submitted to the Nordic Council of Ministers by members of the Thematic Network on Health and Well-being in the Arctic. New funding will permit a continuation of the work of the Thematic Network. News regarding funding possibilities are available on the UArctic website.

The Thematic Network on Health and Well-being in the Arctic is finally now collaborating with more UArctic Thematic Networks, e.g. Ageing and Gender in the Arctic & Arctic in Asia and Asia in the Arctic. Three panels have been submitted by the Thematic Network on Health and Well-being in the Arctic for the year 2021: Arctic Science Summit Week, UArctic Congress and ICASS X. Finally, the Thematic Network on Health and Well-being in the Arctic aims to attract and motivate network members to participate more actively in the activities related to the Network.

## **UArctic – Networking Activities on Arctic Research and Education**

In 2020 we received in collaboration with our partner universities (UiT – The Arctic University of Norway, Umeå University, University of Southern Denmark, and University of Copenhagen) funding for organising a PhD course and research seminar at GCHR. Below you can read about the activities and how we adjusted it to an online version, due to Covid-19 restrictions.

### *Background*

Health research in Greenland has increasingly moved towards Community-Based Participatory Research (CBPR). In CBPR, partnerships are built with communities and studies are based on communities' views and strengths, to increase the well-being of the population as well as the individual.

Finding and applying a solution to Greenland's health problems must take place on the country's own premises with participation of Greenland's own healthcare and health research system. Essential to reaching a satisfying and improved healthcare is having necessary quality controls carried out continuously. However, these must be supported with ongoing innovative research to optimize health promotion as well as preventive and therapeutic efforts.

The Greenland Centre for Health Research (GCHR) at the Institute for Nursing and Health Sciences, Ilisimatusarfik – University of Greenland, has increased its capacity over the past decade. Currently, it consists of more than 20 (assigned) researchers and PhD students. The GCHR promotes and strengthens Greenlandic health research for the benefit of the Greenlandic population and society. This is done by anchoring research in the Greenlandic healthcare system and society through research training and capacity building, and by promoting high quality research through solid network-building. The Centre contributes to the transfer of competencies in research to Greenland, provides a base for PhD students, and a Greenlandic identity for assigned researchers. The aim of the Centre is to enhance cooperation between researchers from other countries and health professionals in Greenland, and to facilitate research cooperation within

---

Greenland and interaction between researchers from other countries and the Greenlandic community at large.

### *Purpose and overall goal of the activities*

The objective of this project was to further develop research and capacity of the GCHR at the University of Greenland, by setting the agenda for future directions for health research in Greenland and for the positioning of GCHR. Due to Covid-19 travel restrictions we had to adjust our activities.

### *PhD course*

Despite Covid-19 we were able to conduct a three-day very successful transarctic PhD course from the 31<sup>st</sup> of November to the 2<sup>nd</sup> of December. First it was planned to use the funding for granting PhD students and researchers travel-funding to come to Greenland. Due to travel restrictions, we decided to continue with the course but re-shaping it to an almost full online course.

21 PhD students from Canada, Russia, USA, Denmark, Sweden, Norway, Faeroe Islands and Greenland participated in the course. Nine of these students were at the time living in Nuuk and therefore physically present at Ilisimatusarfik – University of Greenland. The majority of students came from the field of health research, but some were also from field of indigenous studies and practical theology.

The lecturers contributing to the course came from Ilisimatusarfik (Greenland), UiT – The Arctic University of Norway, Umeå University (Sweden), The Qaujigiartiit Health Research Centre (Nunavut, Canada), University of Southern Denmark and University of Copenhagen. The lecturers of the course who live in Nuuk, gave their lectures at the University, while live-streaming it on our online platform to the other students present online.

The program was carefully prepared to ensure that each course day topic build upon the next: we discussed Ethics on day one, followed by Community-based participatory approaches on day two, and finally Implementation of interventions and results. Furthermore, prior to the course PhD students had prepared video-presentations of their project on which they gave each other feedback in groupwork sessions during the course. Groupwork at the end of each course day, and the use of “check-in” and “check-out” rounds of all participants ensured a great feeling of unity among the PhD students. We experienced a great motivation, engagement and positive atmosphere among all PhD students, who participated actively in pre-course video-presentations, groupwork and plenary discussions. The individual feedback and results of the course evaluation have been very positive.

In the evening of the last day of the course we held a public online lecture and panel-discussion on “Lessons learned of Covid-19 across the Arctic”. The event was announced online and to peers across the Arctic.

Since this predominantly virtual course was such a great success, we wish to repeat it annually or every second year as a basic online course for Arctic PhD students on the topics of ethics, community-based participatory methods and implementation of interventions and results.

### *Researcher seminar*

Originally it was our plan to hold a two-day seminar for the researchers at the Greenland Centre for Health Research (GCHR). However, due to the Covid-19 travel restrictions we decided to reform the program to be fully online and only to last half-a-day.

---

The aim of the research seminar was to gather all affiliated researchers at the Centre in order to strengthen collaboration across, discuss focus areas important for health research in Greenland, and agree on a vision for the future direction of the Center and health research in Greenland.

First Gert Mulvad and Christina VL Larsen shortly presented on the topics of “Ethical and legal guidelines along with securing data archives and processing in Greenland” and “Lancet Commission on Arctic Health ‘Urgently Accelerating Indigenous health and wellbeing’”. Following this, 11 research units/groups within GCHR gave a short overview of their research activities in Greenland, while also pointing out how they worked with implementation of their research results in Greenland. Afterwards all participants discussed the topics “Education, teaching and supervision; research dissemination in Greenland and the Arctic region” or “Ethics and participant involvement; Genetic research, bio- and databanks” in two groups.

The group discussions were very fruitful as they increased understanding and agreement across researchers, especially around finding a common ground on similar challenges and ideas to increased collaboration and best use of the available professional resources and knowledge.

Next step is to follow up on ideas and discussions by organizing a research seminar in 2021, to establish working groups and turn ideas into practice.

### *Public event*

Besides the first mentioned public online event on “Lessons learned of Covid-19 across the Arctic”, we also organized a local public event in the evening at the University in Nuuk. 45 people from Nuuk took part in the event: local researchers, students, health personnel, policy workers and more.

The public event was a fusion of several occurrences that we celebrated in one evening. Besides giving the participants a short overview of the fruitful discussions from the PhD course and the researcher seminar, we also celebrated the professor accession of Lene Seibæk and the 25<sup>th</sup> anniversary of the Danish Greenlandic Society for Circumpolar Health.

*Christine Ingemann*

---

## PhD Students

### **Ivalu Katajavaara Sørensen, MSc Public Health, PhD student**

In August, the Centre for Public Health in Greenland's former research assistant **Ivalu Katajavaara Sørensen** started as a PhD student. Ivalu has a background in Public Health Science and has been working with health research in Greenland for the past three years. Her research approach is primarily epidemiology and her research interests are mainly mental health and youth. Ivalu has spent several years developing her PhD project on suicide titled "Trajectories, risk factors and risk patterns for youth suicide in Greenland - A systematic approach based on registries and surveys". The study has been developed on the basis of many conversations and interviews with important stakeholders, front personnel and researchers. A short description is provided below:



The suicide rate in Greenland has remained unchanged for the past 40 years with an average suicide rate of 100 suicides per 100,000-person years and especially young people are at risk. Arctic research points towards the importance of social determinants as well as adverse childhood experiences in youth suicides. Research in a non-indigenous population found different life trajectories affected the risk of suicide where especially adverse childhood experiences differentiated youth suicide from suicide in adults. This is the first project to conduct a nationwide and systematic investigation of risk trajectories, risk factors and risk patterns for suicide and suicide behavior based on register and survey data. The study population is youth and young adults aged 15-40 years in Greenland from 2006-2017. The hope is that the results will allow for identification of not only risk factors but also their co-occurrence and timing further allowing for identification of different at-risk groups. The findings will provide a basis for screening and a more tailored preventive approach.

### **Julie Flyger Holflod, PhD student**

In August Julie started her PhD studies enrolled at University of southern Denmark and is in the process of being enrolled at Ilisimatusarfik as well to do a joint degree. Her research project will evaluate the implementation and effects of the national treatment service for alcohol and other addictions, Allorfik. Allorfik was established in 2016 and has provided a whole new form of treatment service as well as more direct access to treatment for a large part of the population with treatment facilities in the 5 largest cities. Allorfik is based on best practice and evidence from western counties and not much is known or documented from indigenes or Inuit populations. Julie has engaged a local reference group for the project and will have two main studies. The first will use qualitative methods and investigate the implementation process of Allorfik: intentions, barriers and facilitators as well as how the service is suited for the local population. The second study will

---

investigate the effects of the service before and after implementation using quantitative methods to measure changes in alcohol intake, wellbeing etc.

### **Hjalte Larsen, MD.**

In September 2020, Hjalte started a 3-year PhD, enrolled at the university of Greenland Ilisimartusarfik. The PhD project is about Heart Failure among the Greenlandic population. It has been a clinical perception that Heart Failure is the cause for many admissions and that the age at diagnosis is lower than expected. The project consists of 2 register studies and 1 clinical study. The register studies will investigate the development of the incidence of cardiovascular disease since 1987, based on diagnosis from the electronic medical journal and the national patient register. And secondly investigate the prevalence of heart failure in 2020, based on registered diagnosis or received medical treatment. The clinical study is planned as a Genome-Wide Association Study including patients with non-ischemic heart failure compared to genomes from people without heart failure.

Hjalte has been working at the Medical Department at Queen Ingrid's Hospital in Nuuk since December 2018. The employment is divided between Ilisimartusarfik and the medical department at Queen Ingrid's Hospital.

### **Anna Maria Andersson, MD.**

Anna Maria Andersson, a MD and a Ph.D.-student at the University of Greenland and Copenhagen University, has one year left to complete her PhD-thesis Atopic dermatitis among children in Greenland and Denmark. During 2019 and 2020 she visited daycare institutions in Nuuk, Sisimiut and Qaqortoq and examined more than 800 children in the age 0-7 years old for atopic dermatitis. As a direct consequence of the COVID-19 pandemic, her last and final field trip to Eastern Greenland was postponed and will hopefully be possible in 2021.

Currently she is completing the data-analysis and working on several manuscripts that will be published later this year.

### **Paneeraq Noahsen, MD.**

Paneeraq Noahsen, a MD and a part-time PhD-student at the University of Greenland and University of Aalborg, enrolled in November 2017 and has 2 and a half years left to complete her PhD-thesis "Thyroid function and autoimmunity among populations in Greenland with 10 and 20 years follow-up".

An article has been published in a well esteemed endocrine, peer-reviewed journal. This paper documents an understanding of the dynamics and the short-term impact of iodine on thyroid function. The first population paper has been submitted and awaits peer-review.

The follow-up data from Nuuk was collected in July and August 2018 in Nuuk. The collection of data was continued in November 2018 to add the number of participants that were not able to attend due to holidays abroad or leisure time in the fjord during the summer.

The collection of data in Ammassalik district took place in spring 2019. Due to unpredicted ill-fated events, the research group was reduced to two researchers and one East Greenlandic interpreter. These unfortunate events, a tight time schedule and weather conditions (a storm from north-east) made it impossible for the two remaining researchers to visit all the small settlements

---

in East Greenland that are only accessible by helicopter with limited service. The settlements excluded in 2018/2019 data are Tiniteqilaaq, Sermiligaaq and Kuummiut, all scarcely inhabited.

The postponence of courses worldwide due to the COVID-19 pandemic and the strict travel restrictions in and out of Greenland has delayed the general course attendance.

Paneeraq is working at The National Board of Health in Nuuk as a doctor specialising in Public Health and will complete her specialist training in the spring 2023.

### **PhD enrolment at the university of Greenland**

Double PhD enrolment (double/joint degree): The PhD School at the University of Greenland (Ilisimatusarfik) offers an international research education in three different programs: 1) Arctic Studies - Health and Social Conditions, 2) Arctic Studies - Pedagogy and the Science of Education, and 3) Arctic Studies - Culture, Language and Social Conditions. The purpose of the education is to qualify the student to do research, development and instructional tasks and to transmit scientific problems and issues in the Arctic. All students must be assigned to one of the programs. The PhD School offers two kinds of PhD educations with various lengths: an ordinary program (for an expected three years) and an assistant professor with PhD-program (for an expected six years). The PhD School is willing to make partnership agreements with other research institutions and foreign universities e.g. regarding double enrolment (double /joint degree). Double enrolment as an assistant professor with a PhD program requires an individual agreement approved by the PhD council and the head of the institute. The application to apply for enrolment as a PhD student at Ilisimatusarfik is available at the university website.

*If interested, please feel free to contact head of PhD council at Arctic Studies, Health and Social Conditions, Head of Research, Professor Lise Hounsgaard, lhounsgaard@health.sdu.dk.*

---

## Newly assigned researchers

### Marie Balslev Backe, PhD

1st of July 2020, Steno Diabetes Center Greenland was established in Nuuk. As Research Coordinator, Marie Balslev Backe organizes research activities in the Steno center while conducting research and tutoring students of medicine. Since opening of the center, two students of medicine have carried out their candidate project; one focusing on usage of antidepressant medicine in Greenland, and the other estimating the prevalence and quality-of-care of chronic obstructive pulmonary disease in Greenland. The findings of both projects are currently in preparation for submission to peer-reviewed journals. The goal of the Steno center is to improve health in general and quality of life for all citizens with diabetes and lifestyle-related illnesses. In order to evaluate the effects of the center, Marie Balslev Backe is currently carrying out register-based research to determine a baseline for the prevalence, incidence and mortality rate of diabetes in the five-year period prior to opening of the Steno center, as well as for hypertension.



### Nils Skovgaard, PhD

Nils Skovgaard currently works in the Greenlandic health care system as a health care analyst and statistician, analyzing outcomes of the former and current health care data registration. His primary assignments include handling day-to-day requests for data on the current clinical processes, sustainable development of the data structure and larger analytic reports reflecting the current medical trends in the Greenlandic population. Nils has lived in Nuuk for 3 years with his Greenlandic wife and two kids relocating to Greenland after finishing his PhD at University of Copenhagen. Nils has a master and a PhD in pharmaceutical sciences from Denmark and USA and worked prior to his employment in Greenland with point-of-care diagnostic devices and systems biology. During his time in Greenland Nils has been involved with various research projects aiming to provide a better understanding of the health care quality in Greenland and to uncover environmental influences on the health in Greenland. He is also a frequent presenter on the use of statistical feedback as support for improvements of the health care quality in Greenland at various events including Nunamed and ICCH.



---

## News from researchers

### Steno Diabetes Center Greenland

July 1, 2020, Steno Diabetes Center Greenland became a reality as a part of the Greenlandic Health Care System. It was a result of a corporation between Novo Nordisk foundation and the Government of Greenland. Establishing a strong international environment for arctic health research in Greenland in corporation with Center for Health Research in Greenland is essential for Steno Diabetes Center Greenland. Senior researchers at Steno Diabetes Center Greenland work in corporation with Greenland Center for Health Research in Greenland as well as with international partners. General health in Greenland are the overall focus for the research while diabetes and other chronic conditions related to lifestyle and life conditions are of special interest.

*Dr. Med. Michael Lynge Pedersen*

### Research project: “Collaboration on the good life for old persons living in a retirement home in Greenland”

*A cooperation between Kommuneqarfik Sermersooq, Department for Welfare, Labour Market and Elder Care, and Institute for Nursing and Health Sciences, Ilisimatusarfik/University of Greenland. Project leaders: Tine Aagaard, PhD, Greenland Center for Health Research, and Anna Kleist Egede, cand. cur., head of department, Institute for Nursing and Health Sciences.*

The project takes point of departure in elder care as a fundamental welfare institution and is carried out as an action research project where both frontline employees, residents and relatives are involved.

In any welfare practice human relations are the product of the work, and so the relational abilities and competencies of the employees are central for the quality of the work. Consequently, this project aims at exploring practice in a retirement home from the perspectives of both the employees and of the people who are the objectives of the work, namely the residents and their relatives. The insight into the perspectives of the users of the retirement home are to be related to the perspectives of the employees and to political and administrative strategies and practical frameworks for elder care. In this way, it is the intention to create opportunities for translating political visions and strategies into practice, with respect to both the given frameworks and to users' and employees' perceptions of what a good practice and a good life in a retirement home can be.

### The Greenland Diet Revolution, GUTCYCLES project, UMAMI project

The project The Greenland Diet Revolution was concluded in 2020 after three years of interesting research. So far two publications have been published (links below) and one manuscript is in review while others are under preparation. The published results show that traditional ways of drying fish in Greenland impacts which microbes are on the fish and notably, that industrially dried fish have a poorer diversity of microbes compared to traditionally dried fish. Together with the second study these findings highlight that traditional Inuit foods are sources of microbes from nature. How this impacts the human intestinal ecosystem positively or negatively we do not yet know. To understand this we are working hard to analyse results from the GUTCYCLES project after more than a year of sampling gut microbiomes in Northern Greenland. Finally, the research from the Greenland Diet Revolution continues with the UMAMI project in the

---

Unusual Microbiomes And Metabolites of Inuit foods funded by the Carlsberg Foundation and led by Aviaja L. Hauptmann.

- <https://www.sciencedirect.com/science/article/pii/S0740002019303909>
- <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0227819>

Together with collaborator Inge Høst Seiding, Aviaja Lyberth Hauptmann was granted funding for a preliminary project, Forgotten Friends I. The project will look into the development of hygiene through Greenland's colonial history. The aim of the project is do lay the foundation for a larger project in which the impact of living in and off nature on the human microbiome and immune health is assessed.

*Aviaja Lyberth Hauptmann, Ph.D*

## **Cardiometabolic research and activities in 2020**

With the accomplishment of several large studies in 2019, we dedicated 2020 to the dissemination of scientific results, primarily related to genetic studies and to studies of late diabetes complications. Of importance, with the emerging body of genetic studies in Greenland, knowledge on perceptions on genome-based research has been collected from Sharing Circles, showing general strong support in the population to genetic studies of diabetes.

Ninna Senftleber defended her PhD on diet and health and documented that N-3 fatty acids are not associated with risk of cardiovascular disease in Greenland.

Maria Overvad defended her PhD and showed that the diabetogenic variant TBC1D4 seems not to increase the risk of cardiovascular disease, and the study even indicated a protective effect on the kidney.

Trine Jul Larsen showed in her first PhD article that diabetic eye disease is surprisingly uncommon in Greenland, supporting the notion from previous register studies. Trine will expand her findings to a register-study comprising the entire Greenlandic diabetes population.

A PhD study conducted by Marie Mathilde Bjerg Christensen on cardiac- and peripheral neuropathy has been initiated. In March 2020 supplementary data were collected in Qasigiannuit aiming to establish a normative reference material for adult Greenlanders.

Another PhD study funded by Karen Elise Jensen's Foundation was initiated in 2020. Hjalte Erichsen will study incidence and risk factors of heart failure in Greenland in collaboration with the Medical Department at Queen Ingrid's Hospital and Steno Diabetes Center Greenland.

Finally, we recently received a grant from the Novo Nordisk Foundation focusing on climate and metabolism. The study will be carried out in collaboration with Steno Diabetes Center Greenland, Steno Diabetes Center Copenhagen, University of Copenhagen, Region Zealand, Harvard University, and Aalborg University Hospital.

*Professor Marit Eika Jørgensen*

*Steno Diabetes Center Copenhagen, Ilisimatusarfik & University of Southern Denmark*

## **Ageing in the Arctic (AgeArc) – research and activities 2020**

AgeArc has, despite the challenges resulting from Covid-19, conducted and completed a number of activities. The project has published several peer-review articles, book chapters and a photo essay. Researchers have conducted fieldwork and research activities in Sisimiut and Nuuk. Moreover, two subprojects have been conducted and completed, and the project has produced

---

two smaller reports on dementia. We also continued the internship programme for students of physiotherapy and psychomotorical therapy in two municipalities.

The sub-project *Aktivering af Svage Ældre Mennesker* which was funded by NIS-Grønlands Forskningsråd in 2019 and hosted at GCHR, was completed. The project resulted in the production of a series of posters with pictures for use in reminiscence work in old age homes. Videos with instructions for care staff regarding a series of physical exercises for frail older people have also been translated.

The sub-project *Involvering af Ældre Mennesker i Digital Formidling af Kulturarv* was funded by NIS – Grønlands Forskningsråd in 2020. The project was a pilot project conducted in collaboration Grønlands Nationalmuseum og Arkiv NKA. A co-design process was developed, and several workshops with older people in Nuuk were held. A podcast is currently under development.

Also, the project *Alliartorneq* in which we develop intergenerational camps with focus on health, nature and cultural identity was commenced in 2020. *Alliartorneq* is based at Center for folkesundhed i Grønland ved Statens Institut for Folkesundhed (Syddansk Universitet) and GCHR and conducted in collaboration with Qeqqata Kommunia and Kommunqarfik Sermersooq. It is funded by Karen Elise Jensens Fond

In 2020 AgeArc has been part of a successful network application for the network NORRUS-Age working on healthy ageing policies and practices in Greenland, Finland, Norway and Russia. The network is funded by the Nordic council and had its kickoff workshop in the autumn of 2020.

In the coming year we look forward to publishing of the book *Eqqaamaviuk? Atuagaq Oqaloqatigiissutissaq Nunatsinneersunik Assiliartalik/Husker Du? En Samtalebog med Billeder fra Grønland* and a national conference on dementia.

*Tenna Jensen &  
Kamilla Nørtoft*

## **Update on research activities from the Bachelor Education in Nursing, Ilisimatusarfik**

In August cand. cur. Louise Lennert Olsen defended her master thesis: 'The significance in meetings with health professionals'- A Ricoeur inspired study of the experiences of elderly Greenlandic citizens with lifestyle-related chronic illness when meeting health professionals.

The main findings were 1) that continuity and professional attitude had the most important impact on the perceived quality of chronically ill persons' meetings with healthcare staff members. 2) lack of continuity and professional attitude could result in the citizen losing confidence in health care, not seeking assistance despite needs. Dissemination of the study findings will take place during 2021.



---

The project *'Patient involvement in Greenland hospital care'* by Lene Seibæk, Helle Mougaard-Frederiksen and Lise Hounsgaard has now entered its final phase.

In this project, it has been investigated in what way patient involvement can be defined and implemented in a Greenlandic hospital context. The project has been conducted in close cooperation with Institute for Nursing and Health Science and Queen Ingrid's Hospital, Nuuk. Data consisting in three individual and focus-group interviews, 12 observations with a total of 23 health professionals from eight different disciplines at the hospital, and 11 interviews and three observations with a total of 14 patients has been analysed. At present the dissemination of the findings and implementation of patient involvement in clinical practise is ongoing.



During 2020 the project *'Working together for a good life in old age in retirement homes'* by Anna Egede Kleist & Tine Aagaard has been prepared for start-up in 2021.



The aim of the study is to develop knowledge about residents and relatives' perspectives and resources in daily life as old persons and as part of a family. Further, to investigate staff perspectives and resources to contribute professionally and humanly to the daily living of residents and relatives. Based on the results concepts and tools for dialogue and cooperation between residents, relatives and staff will be developed and evaluated.

---

The project 'Children with otitis media and their parents - Improving treatment efforts through parental involvement' has been prepared during 2020 and is now ready for the initial start-up.

The background is that the incidence of otitis media among Greenlandic children is one of the highest in the world. Studies among Greenlandic families have shown that parents of children with frequent and prolonged episodes of otitis media are often worried about and burdened by their children's condition, and some are dissatisfied with health care service.

The aim of the study is to develop and test parent-based initiatives for improved care and treatment of children with otitis media in terms of 1) implementation of the right care and treatment 2) cooperation, support and information for the affected children and their families.

The study will be conducted by Lene Seibæk, Monica Nedergaard Ejsing, Malene Nøhr Demant and Preben Homøe along with representatives from the municipal health nurses and Paarisa; it has received financial support from the Greenland Research Council.



*Lene Seibæk, professor*

## Research at Centre for Arctic Health & Molecular Epidemiology 2020



**Researchers at Centre for Arctic Health & Molecular Epidemiology (CAH-ME) from the left:**  
*Eva Cecilie Bonefeld-Jørgensen, Professor, Centre Director; Manhai Long, Associated professor; Gunnar Toft, Associated professor; Maria Wielsøe, Post. Doc.; Magnus Kok Groveff, Research Assistant.*

### *Update on the Greenlandic geographic Birth Cohort ACCEPT*

The ACCEPT birth cohort was established during 2010-2015 in a collaboration between the Greenlandic Health Care, Greenland Centre for Health Research, Ilisimatusarfik and CAH-ME, Aarhus University. ACCEPT includes approximately 600 pregnant Inuit women and their child from five regions (North, Disko Bay, West, South and East) with a participation reflecting the population density. The pregnant women's belongings were set to where they had lived longest (more than 50% of their life). As reported for 2019, we published eight ACCEPT related papers in the period 2015 – 2019 (Knudsen et al. 2015, Long et al. 2015, Terkelsen et al. 2017, Bjerregaard-Olesen et al. 2017, Knudsen et al. 2018, Bank-Nielsen et al. 2019, Hjermitslev et al. 2019, Rasmussen et al. 2019).

The BioSund-ACCEPT project is running during 2018-2021. The project is a collaboration between CAH-ME, Aarhus University, Greenland Centre for Health Research, Ilisimatusarfik and

Health Care, Nuuk. BioSund-ACCEPT includes 101 ACCEPT families (mother, father, and child) with follow-up on the ACCEPT child health and development at 3-5 years of age and follow-up on the mother's lifestyle and health including also the father's data. Blood, hair, nail and urine are collected for measurements of Persistent Organic Pollutants and metal and toxicological analyses. Data analyses are ongoing expected finalized end 2021.

During 2019 and 2020, we conducted a follow-up study on the 101 ACCEPT mothers, 76 fathers, and their children (102) in Nuuk, Ilulissat and Sisimiut. In 2020, we have three papers submitted (or ready) on the following topics 1-3:

**1) Dietary habits among men and women in West Greenland: Follow-up on the ACCEPT birth cohort.**

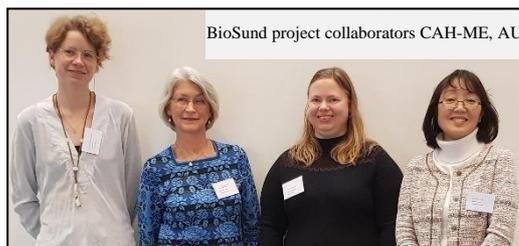
We found the following overall results. Comparable to the previously data in the ACCEPT birth cohort and supported by other Greenlandic studies, the distribution between the frequency intake for traditional and imported food groups was 14% and 86%, respectively. In line with other studies, women seem to have more healthy dietary habits, although there was significant positive correlations between parents living together. There was a relation between age, living town and several socioeconomic and lifestyle factors and the food intake. This indicate that social class highly influence the dietary habits, participants with higher education generally have healthier dietary habits, while current smokers generally eat more unhealthy food than never smokers. The present follow-up study suggest that the women changed their diet during pregnancy and that the dietary habits went back to non-pregnancy habits after pregnancy. This suggest that some of the women adapt to some of the food recommendations given to pregnant women in Greenland. However, further studies with dietary information before, during and after pregnancy might confirm our data. For further diet recommendations, it is important to monitor the dietary and lifestyle habits frequently to follow the transition in Greenland.



**2) Anthropometric measurements and blood pressure of Greenlandic children 3-5 years of age.** This study present updated anthropometric data and blood pressure of Greenlandic preschool children and the effects of maternal smoking during pregnancy. The prevalence of overweight and obesity was higher than previously reported and maternal smoking during pregnancy affected the child data, highlighting a need for age and ethnicity specific investigations.

**3) Prenatal exposure to Persistent Organic Pollutants, Metals, and Problematic Child Behavior at 3-5 Years of Age.** In this study, we found that prenatal organochlorine pesticide exposure associated significantly with problematic behavior in 3-5 year old children, boys might be more sensitive than girls might.

The BioSund-ACCEPT project is still ongoing, and we also plan to elucidate data for how exposure to environmental chemicals can affect child immune defense/infection frequency, child motoric capacities and preschool performance.



---

Moreover, during 2020 we have evaluated Greenlandic biomonitoring data and submitted a manuscript on “Time trend of persistent organic pollutants and metals in Greenlandic Inuit during 1994-2015”. We found during 1994 to 2015 a decreasing trend of the regulated POPs and metals while a potential increasing trend of the non-regulated PFASs in the Greenlandic population. The environmental contaminants is still of concern and continuing biomonitoring is important to protect the Arctic population health.

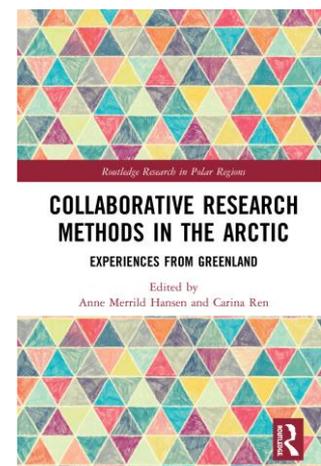
*Eva Cecilie Bonefeld-Jørgensen  
CAH-ME Professor & Centre Manager*

## **Contributions by Arctic Health Research Centre in Aalborg 2020**

Another eventful year has passed with developments and progress of projects. 1) *Paneeraq Noahsen* has submitted her second paper, while managing the results from the 20-year follow-up completed the year before. This work is essential for her PhD for a joint degree at Ilisimatusarfik and Aalborg University. The topics covered include metabolism, thyroid function and diet, vitamin D and skeletal health, hepatitis, BMI and obesity with a physical workup including detection of arrhythmia. 2) *Nadja Albertsen* has taken up the study of cardiac arrhythmias including the relation to thyroid function contributing to her PhD joint degree at Ilisimatusarfik and Aalborg University supported by Karen Elise Jensen Foundation. The study is conducted in collaboration with the Department of Internal Medicine at Queen Ingrid’s Hospital and the Clinic for General Medicine in Nuuk. 3) *Nadja* has extended her activities to the study on activities of daily living, comorbidity and polypharmacy among nursing home residents covering two thirds of Greenland completing the first paper based on data of which she collected the majority. 4) *Inaluk Kleist* is completing her project on workup of dementia in Greenland based on a donation from the Velux Foundation. The importance of her work is emphasized by the impact of cultural background on the reliability of the tools used. These tools were transformed to fit into a Greenlandic context and the evaluation of data and scheme are about to be finalised. 5) Finally, *Karsten Rex* has extended his topic of hepatitis in Greenland and new evaluations are underway leaning on his everyday clinical commitment.

In conclusion, activities at AHRC extend into and beyond 2020 with promises for continuing developments in 2021. Needs and requests from everyday clinical health issues inform the research questions asked, and collaborative methods are pivotal to Arctic Health Research Centre.

*Stig Andersen  
Professor, Head of Department, Aalborg University Hospital; AAU Arctic & Ilisimatusarfik*



---

## Planned activities for 2021

### **Continuation of research forum discussions**

With the remaining funding from the 'UARctic – Networking Activities on Arctic Research and Education' GCHR received in 2020, we will continue the discussions we had during our researcher seminar. We will follow up on ideas and discussions to establish working groups and turn ideas into practice.

### **Reforming the PhD course into a fundamental course for PhD students in the circumpolar region**

In 2021, GCHR is planning together with its partners and with the remaining funding from the 'UARctic – Networking Activities on Arctic Research and Education' to reform the held PhD course in 2020 to a fundamental course for PhD students in the circumpolar region. A course we wish to repeat annually or every second year on the topics of ethics, community-based participatory methods and implementation of interventions and results.

---

## Publications in 2020

### *Peer-reviewed articles*

**Aagaard T, Hounsgaard L:** Forord. I Aagaard, T., Hounsgaard, L. (Red.): Menneske – sundhed, samfund og kultur. 2020

**Aagaard T:** Rehabilitering eller et godt liv som gammel. I Nielsen FAJ, **Hounsgaard L**, Lauritsen AN, Pedersen K, Øgaard A (Red.): Grønlandsk kultur- og samfundsforskning 2020-21

**Aagaard T:** Patientperspektiver: en vidensform. I **Aagaard T, Hounsgaard L** (Red.): Menneske – sundhed, samfund og kultur. 2020

**Aagaard T:** Patienters viden, og hvordan vi kan interviewe om den. I **Aagaard T, Hounsgaard L** (Red.): Menneske – sundhed, samfund og kultur. 2020

**Aagaard T & Hounsgaard L.** 2020 (red.). "Menneske – sundhed, samfund og kultur". Aarhus: Klim.

**Aagaard T.** 2020. Conditions-, meanings-, and reasonings analysis. In: Hackett PMV & Hayre CM (eds.), Handbook of Ethnography in Healthcare Research. UK: Taylor & Francis Routledge. Accepted.

Andersen MK, Jørsboe E, Skotte L, Hanghøj K, Sandholt CH, Moltke I, Grarup N, Kern T, Mahendran Y, Søborg B, Bjerregaard P, **Larsen CVL**, Dahl-Petersen IK, Tiwari HK, Feenstra B, Koch A, Wiener HW, Hopkins SE, Pedersen O, Melbye M, Boyer BB, **Jørgensen ME**, Albrechtsen A, Hansen T. The derived allele of a novel intergenic variant at chromosome 11 associates with lower body mass index and a favorable metabolic phenotype in Greenlanders. PLoS Genet. 2020 Jan 24;16(1):e1008544. doi: 10.1371/journal.pgen.1008544. eCollection 2020 Jan.

Andersen S, **Noahsen P**, Fleischer I, **Jørgensen ME**, **Pedersen ML**, **Mulvad G**. [Vitamin D and Vitamin D-related diseases in Greenland]. Ugeskr Laeger. 2020 Jun 8;182(24):V12190684.

Athanasiadis G, Speed D, Andersen MK, Appel EVR, Grarup N, Brandslund I, **Jørgensen ME**, **Larsen CVL**, Bjerregaard P, Hansen T, Albrechtsen A. Estimating narrow-sense heritability using family data from admixed populations. Heredity (Edinb). 2020 Apr 9. doi: 10.1038/s41437-020-0311-2

**Backe MB & Pedersen ML** (2020). Prevalence, incidence, mortality, and quality of care of diagnosed diabetes in Greenland. Diabetes Research and Clinical Practice, 107991.

Boesen SAH, Long M, Wielsøe M, Mustieles V, Fernandez MF, **Bonefeld-Jørgensen EC**. Exposure to Perfluoroalkyl acids and foetal and maternal thyroid status: a review. I: Environmental Health: A Global Access Science Source, Bind 19, Nr. 1, 107, 10.2020

**Bonefeld-Jørgensen EC**, Long M. Early-life environmental influences on growth. Early-life environmental exposure and disease: facts and perspectives. red. / Yankai Xia. Singapore : Springer Nature, 2020. s. 113-140.

**Egede AK, Hounsgaard L, Seibæk L:** Grønlandske hjertepatienter i Danmark. I **Aagaard T, Hounsgaard L**. (Red.): Menneske – sundhed, samfund og kultur.2020

**Hauptmann AL**, Paulová P, Hansen LH, Sicheritz-Pontén T, **Mulvad G**, Nielsen DS (2020). Microbiota in foods from Inuit traditional hunting. PLoS ONE 15(1): e0227819. <https://doi.org/10.1371/journal.pone.0227819>

---

**Hauptmann AL**, Paulová P, Castro-Mejía JL, Hansen LH, Sicheritz-Pontén T, **Mulvad G** & Nielsen DS (2020). The microbial composition of dried fish prepared according to Greenlandic Inuit traditions and industrial counterparts. *Food microbiology*, 85, 103305.

**Ingemann, C.**, Hansen, N. F., Hansen, N. L., Jensen, K., **Larsen, C. V. L.**, & Chatwood, S. (2020). Patient experience studies in the circumpolar region: a scoping review. *BMJ open*, 10(10), e042973.

**Jensen T**, Nørtoft K: Livskvalitet i alderdommen – hverdagstemaers indflydelse på den gode alderdom. I **Aagaard T, Hounsgaard L** (Red.): *Menneske – sundhed, samfund og kultur*.2020

**Jørgensen ME, Pedersen ML.** [Diabetes in Greenland]. *Ugeskr Laeger*. 2020 Jun 8;182(24):V12190696. (c)

**Koch A, Bjørn-Mortensen K**, Johansen MB, Homøe AS, Homøe P. Infectious diseases with public health impact in Greenland. *Ugeskr Laeger*. 2020 Jun 8;182(24):V12190689

Mathiesen L, Mørck TA, Poulsen MS, Nielsen JKS, Mose T, **Bonefeld-Jørgensen EC**, Manhai Long, Bossi R, Knudsen LE, 2020. Placental transfer of pesticides studied in human placental perfusion. *Basic & Clinical Pharmacology & Toxicology*, June 2020; <https://doi.org/10.1111/bcpt.13456>

Luo J, Xiao J, Gao Y, Ramlau-Hansen CH, Toft G, Li J, Obel C, Andersen SL, Deziel NC, Tseng WL, Inoue K, **Bonefeld-Jørgensen EC**, Olsen J. Prenatal exposure to perfluoroalkyl substances and behavioral difficulties in childhood at 7 and 11 years. *Environmental Research* 191 (2020) 110111

Mougaard-Frederiksen H, **Aagaard T**: Rekruttering og fastholdelse i det grønlandske sundhedsvæsen set fra sygeplejerskers perspektiver. I **Aagaard T, Hounsgaard L** (Red.): *Menneske – sundhed, samfund og kultur*.2020

Mougaard-Frederiksen H, **Seibæk L**: Sundhedsprofessionelle perspektiver på patientinddragelse i det grønlandske sundhedsvæsen. I Nielsen FAJ, **Hounsgaard L**, Lauritsen AN, Pedersen K, Øgaard A (Red.): *Grønlandsk kultur- og samfundsforskning 2020-21*

**Mulvad G, Aagaard T**: Videnskabsetik i sundhedsforskning i et postkoloniale samfund med en lille befolkning. I **Aagaard T, Hounsgaard L** (Red.): *Menneske – sundhed, samfund og kultur*. 2020

**Mulvad G, Aagaard T**: Familier og velfærd: Mere udvikling – mindre behandling. I **Aagaard T, Hounsgaard L** (Red.): *Menneske – sundhed, samfund og kultur*.2020

Møller S: Sygeplejerskeuddannelsen set i et uddannelseshistorisk perspektiv. I **Aagaard T, Hounsgaard L** (Red.): *Menneske – sundhed, samfund og kultur*.2020

Niclasen BV, Poulsen BK: Rusmidler i en grønlandsk sammenhæng – historie, forebyggelse og behandling. I **Aagaard T, Hounsgaard L** (Red.): *Menneske – sundhed, samfund og kultur*.2020

Nørtoft K, Jensen H & **Jensen T** (e-pub ahead of print 14/12-2020) Meningsfulde aktiviteter og Stille og rolig omsorg – To spor i grønlandsk demenspleje, *Tidsskriftet Gerontologi*

Olsen MALF, **Jensen T.**: Grønlands første alderdomslov fra 1926 – politiske opfattelser af ældre mennesker ved alderdomslovgivningens indførelse i Grønland. I Nielsen FAJ, **Hounsgaard L**, Lauritsen AN, Pedersen K, Øgaard A (Red.): *Grønlandsk kultur- og samfundsforskning 2020-21*

---

Rasmussen KV, Nielsen KK & **Pedersen, M. L.** (2020). No association between early maternal HbA1c and offspring birthweight among women without pre-existing diabetes in Greenland. *International Journal of Circumpolar Health*, 79(1), 1702798

Rønn PF, Andersen GS, Lauritzen T, Christensen DL, Aadahl M, Carstensen B, Grarup N, **Jørgensen ME.** Abdominal visceral and subcutaneous adipose tissue and associations with cardiometabolic risk in Inuit, Africans and Europeans: a cross-sectional study. *BMJ Open*. 2020 Sep 14;10(9):e038071. doi: 10.1136/bmjopen-2020-038071.

Schlütter M, **Houngaard L:** Når helbredet svigter i alderdommen – ældres møde med uvished i behandlingsforløb i det grønlandske sundhedsvæsen. I **Aagaard T, Houngaard L** (Red.): *Menneske – sundhed, samfund og kultur*. 2020

**Seibæk L:** Patientinddragelse i klinisk hospitalspraksis. I **Aagaard T, Houngaard L** (Red.): *Menneske – sundhed, samfund og kultur*. 2020

Senftleber NK, Albrechtsen A, Lauritzen L, Larsen CL, Bjerregaard P, Diaz LJ, Rønn PF, **Jørgensen ME.** Omega-3 fatty acids and risk of cardiovascular disease in Inuit: First prospective cohort study. *Atherosclerosis*. 2020 Sep 8;312:28-34. doi: 10.1016/j.atherosclerosis.2020.08.032. Online ahead of print. PMID: 32949835

Senftleber N, **Jørgensen ME,** Jørsboe E, Imamura F, Forouhi NG, **Larsen CVL,** Bjerregaard P, Hansen T, Albrechtsen A. Genetic study of the Arctic CPT1A variant suggests that its effect on fatty acid levels is modulated by traditional Inuit diet. *Eur J Hum Genet*. 2020 Jun 19. doi: 10.1038/s41431-020-0674-0.

Vinggaard AM, **Bonfeld-Jørgensen EC,** Jensen TK, Fernandez MF, Rosenmai AK, Taxvig C, Rodriguez-Carrillo A, Wielsøe M, Long M, Olea N, Antignac JP, Hamers T, Lamoree M. Receptor-based in vitro activities to assess human exposure to chemical mixtures and related health impacts. I: *Environment International*, Bind 146, 106191, 14.10.2020.

Wielsøe M, Tarantini L, Bollati V, Long M, **Bonfeld-Jørgensen EC** 2020. DNA methylation level in blood and relations to breast cancer, risk factors and environmental exposure in Greenlandic Inuit women. *Basic & Clinical Pharmacology & Toxicology* <https://doi.org/10.1111/bcpt.13424>.

### *Other publications*

Nørtoft K og **Jensen T** (2020) Kvalitativ viden om demensområdet i relation til Demensplan 2013: Fokus på indsatsområderne 2, 3, 4 og 7, *Arktisk Aldring*, Københavns Universitet

Nørtoft K og **Jensen T** (2020): Undersøgelse blandt pårørende til mennesker med demens i Kommuneqarfik Sermersooq, *Arktisk Aldring*, Københavns Universitet

### *Oral & poster presentations*

**Aagaard T:** Patient perspectives. Presentation for the Health Committee of Greenland, sept. 2020.

Nørtoft K og **Jensen T** (2020) Utoqqaat innunerat – ældreliv i Grønland, *Bibliotek for Læger*, juni 2020

**Seibæk L:** The patient perspective as a source of knowledge. Inaugural lecture, Ilisimatusarfik – University of Greenland November 2020.

---

## Publications from previous years

### Publications in 2019

#### *Peer-reviewed articles*

**Aggaard T.** (2019). Procedurer for patientinddragelse og medmenneskelighed. Tikusaaq, nr. 2.

**Andersen S., Noahsen P., Florian-Sørensen HC, Rex K., Mulvad G.** (2019). Iodine in Edible Seaweed, Its Absorption, Dietary Use, and Relation to Iodine Nutrition in Arctic People. *Nutrition in Arctic People Journal of Medicinal Food*. 22(4):421-426.

Bank-Nielsen P. I., Long M. & **Bonefeld-Jørgensen EC** (2019). Pregnant Inuit Women's Exposure to Metals and Association with Fetal Growth Outcomes: ACCEPT 2010–2015. *International journal of environmental research and public health*, 16(7), 1171.

Berntsen S, **Mulvad G.**, Jensen JS, Poulsen P, Hansen HL, **Pedersen ML** (2019). Susceptibility patterns in *Neisseria gonorrhoeae* in Nuuk, Greenland, 2015-2018: a short communication. *International Journal of Circumpolar Health*, 78:1.

Bjerregaard-Olesen, C., Bach, CC, Long, M., Wielsøe, M., Bech, BH, Henriksen, TB, ... & **Bonefeld-Jørgensen, EC** (2019). Associations of Fetal Growth Outcomes with Measures of the Combined Xenoestrogenic Activity of Maternal Serum Perfluorinated Alkyl Acids in Danish Pregnant Women. *Environmental health perspectives*, 127(01), 017006.

Budtz AES, Lynge AR, Budtz CS, & **Pedersen ML** (2019). Weight among children born 2005-2011 in Nuuk at the time of school entry. *International Journal of Circumpolar Health*, 78(1).

**Demant MN, Larsen CVL, & Homøe P.** (2019). Parental Perceptions and Management Strategies for Otitis Media in Greenland. *International journal of pediatric otorhinolaryngology*.

**Demant MN, Jensen RG., Bhutta MF, Laier GH, Lous J, & Homøe P** (2019). Smartphone otoscopy by non-specialist health workers in rural Greenland: A cross-sectional study. *International journal of pediatric otorhinolaryngology*, 126, 109628.

Grundsøe TL., & **Pedersen ML** (2019). Risk factors observed in health care system 6 months prior completed suicide. *International journal of circumpolar health*, 78(1), 1617019.

Haugaard Rasmussen IM, **Bonefeld-Jørgensen EC, & Long M.** (2019). Greenlandic women's lifestyle and diet during pregnancy and child risk for asthma, eczema and allergy: an ACCEPT-substudy. *International journal of circumpolar health*, 78(1), 1682421.

**Hauptmann AL, Paulová P, Castro-Mejía JL, Hansen LH, Sicheritz-Pontén T, Mulvad G., Nielsen DS.** (2019). The microbial composition of dried fish prepared according to Greenlandic Inuit traditions and industrial counterparts. *Food Microbiology* Pub Date : 2019-08-13.

Healey Akearok G., Cueva, K., Stoor JPA, **Larsen CVL, Rink, E., Kanayurak, N., ... & Hiratsuka, VY** (2019). Exploring the Term "Resilience" in Arctic Health and Well-Being Using a Sharing Circle as a Community-Centered Approach: Insights from a Conference Workshop. *Social Sciences*, 8(2), 45.

Hjermitslev, MH, Long, M., Wielsøe M, & **Bonefeld-Jørgensen EC** (2019). Persistent organic pollutants in Greenlandic pregnant women and indices of foetal growth: The ACCEPT study. *Science of the Total Environment*, 698, 134118.

---

Inoue, K., Ritz, B., Andersen, SL, Ramlau-Hansen CH, Høyer BB, Bech BH, ..., **Bonefeld-Jørgensen, EC**, ... & Liew, Z. (2019). Perfluoroalkyl Substances and Maternal Thyroid Hormones in Early Pregnancy; Findings in the Danish National Birth Cohort. *Environmental health perspectives*, 127(11), 117002.

**Koch A** (2019). Diabetes in Greenland-how to deliver diabetes care in a country with a geographically dispersed population. *International journal of circumpolar health*, 1668592.

Lawaetz M, Jensen R, Friberg J, Herlow L, Brofeldt S, Fleischer JG & **Homøe P** (2018). Improved survival of head and neck cancer patients in Greenland. *International journal of circumpolar health*, 77(1), 1536252.

Long M, Ghisari M, Kjeldsen L, Wielsøe M, Nørgaard-Pedersen B, Mortensen EL, ... & **Bonefeld-Jørgensen EC** (2019). Autism spectrum disorders, endocrine disrupting compounds, and heavy metals in amniotic fluid: a case-control study. *Molecular autism*, 10(1), 1.

**Noahsen P**, Kleist I, Larsen HM, **Andersen S** (2019). Intake of seaweed as part of a single sushi meal, iodine excretion and thyroid function in euthyroid subjects: a randomized dinner study. *Journal of Endocrinological Investigations*, doi.org/10.1007/s40618-019-01122-6.

Omazic A, Berggren C, Thierfelder T, **Koch A**, & Evengard B (2019). Discrepancies in data reporting of zoonotic infectious diseases across the Nordic countries—a call for action in the era of climate change. *International journal of circumpolar health*, 78(1), 1601991.

Omazic A, Bylund H, Boqvist S, Högberg A, Björkman C, Tryland M, ..., **Koch A**, ... & Kolbasov D (2019). Identifying climate-sensitive infectious diseases in animals and humans in Northern regions. *Acta Veterinaria Scandinavica*, 61(1), 53.

Rønn PF, **Jørgensen ME**, Smith LS, **Bjerregaard P**, Dahl-Petersen IK, **Larsen CVL**, Grarup N, Andersen GS. Associations between birth weight and glucose intolerance in adulthood among Greenlandic Inuit. *Diabetes Res Clin Pract*. 2019 Mar 6;150:129-137. doi: 10.1016/j.diabres.2019.03.005. [Epub ahead of print]

Schnohr C, Frid KEC, Jensen RG, **Homøe P** & Niclasen BV (2019). Self-reported hearing impairment among Greenlandic adolescents: Item development and findings from the Health Behaviour in School-aged Children study 2018. *International journal of pediatric otorhinolaryngology*, 126, 109629.

**Seibæk L**. Patientinvolvering i grønlandsk hospitalspraksis - et igangværende forskningsprojekt [Patient involvement in Greenland hospital care: an on-going research project] *Ilisimatusaat* 2019.

**Seibæk L**. Sundhedsprofessionelle perspektiver på patientinddragelse i det grønlandske hospitalsvæsen [Health professional perspectives on patient involvement in Greenland hospital care] contribution to article in *Tikusaaq* 2019.

Timm H, **Aagaard T**, Augustussen M (2019). Palliation i Grønland. *Omsorg – Nordisk tidsskrift for palliativ medicin*, nr. 3.

#### *Other publications*

**Nørtoft K, Bjerregaard P, Hounsgaard L, Larsen CVL, Olesen I, Jensen T** (2019). Ældre menneskers liv og helbred i Grønland. En rapport fra forsknings- og udviklingsprojektet *Arktisk Aldring*. Syddansk Universitet.

---

Nørtoft KPJ, **Houngaard L & Jensen T**, Udearealer ved ældreboliger i Sisimiut - et samskabelsesprojekt i Arktisk Aldring 2019, I : ILISIMATUSAAT - Information om forsknings- & udviklingsprojekter på Ilisimatusarfik. s. 1

Nørtoft K, **Jensen T** (2019). Ildsjæle I ældreplejen I Grønland, Omsorg, 36, 3, 44-48

**Schlütter M** (2019). At rejse for at leve, Omsorg, 36, 3, 18-23

### *Oral & poster presentations*

**Mulvad G** (2019). Health and Wellbeing in relation to Climate Change. Klimadag Nuuk; February 2019.

**Mulvad G** (2019). The ethics of research with indigenous populations. NordForsk Bioethics conference, Torshavn; september 2019.

**Mulvad G** (2019). Mental Sundhed - Seksuelle overgreb. Foredrag - Rådet for Grønlands Retsvæsen; september 2019.

**Mulvad G** (2019). Seksuelle overgreb. Undervisning ved Politiets efteruddannelse; september 2019.

**Mulvad G** (2019). Åbningstale fra Grønlands Center for Sundhedsforskning, NUNAMED.

**Mulvad G** (2019). Fordele og ulemper ved Grønlands Kost. Abstract and presentation NUNAMED.

Rask de Neergaard R, **Houngaard L**, Gerfelt M, Jensen AB. Tuberkulose og social udsathed, - Screening af brugere af Herberg i Nuuk, Abstract, NUNAMED 2019

**Seibæk L** (2019). Patient involvement in Greenland hospital care. Ilulissat, september 2019.

## **Publications in 2018**

### *Peer-reviewed articles*

**Aagaard T & Borg T** (2018). Patient Participation in Health Practice in Greenland: Local Challenges and Global Reflections. Outlines – Critical Practice Studies. Vol. 19(1). <https://tidsskrift.dk/outlines/article/view/105528>

**Aagaard T** (2018). Betingelses-, betydnings og begrundelsesanalyse. In: Houngaard, Lise og Gildberg, Frederik Alkier (red.): Kvalitative Analysemetoder i Sundhedsforskning. Forlaget Klim. Aarhus.

**Aagaard T** (2018). Everyday Life with Chronic Illness: Physical health or wellbeing?. In: Exner-Pirot, H., B. Norbye and L. Butler (eds.) (2018). Northern and Indigenous Health and Health Care. Saskatoon, Saskatchewan: University of Saskatchewan. ISBN: 978-0-88880-627-7. Available from: [openpress.usask.ca/northernhealthcare](http://openpress.usask.ca/northernhealthcare)

**Aagaard T & Houngaard L** (2018). Everyday Life with Chronic illness: Developing a Democratic and Culture-Sensitive Healthcare Practice. In: Braithwaite, Jeremy, Mannion, Russell, Matsuyama, Yukihiro, Shekelle, Paul G., Whittaker, Stuart (eds.): Health Care Systems: Future Predictions for Global Care. Boca Raton: CRC Press, Taylor and Francis.

Adlard B, Donaldson SG, Odland JO, Weihe P, Berner J, Carlsen A, **Bonefeld-Jorgensen EC**, Dudarev AA, Gibson JC, Krümmel EM, Olafsdottir K, Abass K, Rautio A, Bergdahl IA, **Mulvad G** (2018). Future directions for monitoring and human health research for the Arctic Monitoring and Assessment Programme. Global health action, 11(1), 1480084.

Albertsen N, Fencker IM, Noasen HE, **Pedersen ML**. (2018). Immunisation rates among children in Nuuk. Int J Circumpolar Health;77(1):1426948. doi: 10.1080/22423982.2018.1426948.

---

**Andersen S, Noahsen P, Rex KF**, Fleischer I, Albertsen N, **Jørgensen ME**, ... & Laursen MB (2018). Serum 25-hydroxyvitamin D, calcium and parathyroid hormone levels in Native and European populations in Greenland. *British Journal of Nutrition*, 119(4), 391-397.

Appel EVR, Moltke I, **Jørgensen ME, Bjerregaard P**, Linneberg A, Pedersen O, Albrechtsen A, Hansen T, Grarup N. (2018). Genetic determinants of glycated hemoglobin levels in the Greenlandic Inuit population. *European Journal of Human Genetics*; 26: 868-875.

Augustussen M, **Pedersen ML, Hounsgaard L**, Timm H, Sjøgren P. (2018). Development of health-related quality of life and symptoms in patients with advanced cancer in Greenland. *Eur J Cancer Care (Engl)*:e12843. doi: 10.1111/ecc.12843.

Bourgeois AC, Zulz T, Bruce MG, Stenz F, **Koch A**, Parkinson A, ... & Proulx JF (2018). Tuberculosis in the Circumpolar Region, 2006–2012. *The International Journal of Tuberculosis and Lung Disease*, 22(6), 641-648.

Birch Kristensen E, Yakimov V, **Bjørn-Mortensen K**, Soborg B, Koch A, Andersson M, Birch Kristensen K, Michelsen SW, Skotte L, Ahrendt Bjerregaard A, Blaszkewicz M, Golka K, Hengstler JG, Feenstra B, Melbye M, ... Geller F (2018). Study of correlation between the NAT2 phenotype and genotype status among Greenlandic Inuit. *EXCLI journal*, 17, 1043-1053. doi:10.17179/excli2018-1671

**Bjerregaard P**, Dahl-Petersen IK, Larsen CVL (2018). Measuring social inequality in health amongst indigenous peoples in the Arctic. A comparison of different indicators of social disparity among the Inuit in Greenland. *SSM Popul Health*;6:149-157. doi: 10.1016/j.ssmph.2018.08.010.

**Bjerregaard P**, Larsen CVL (2018). Three life style related issues of major significance for public health among the Inuit in contemporary Greenland. A review of adverse childhood conditions, obesity and smoking in a period of social transition. *Public Health Reviews*; DOI 10.1186/s40985-018-0085-8.

Björnsdóttir B, Geirsdóttir M, Guðmundsdóttir EE, Þorkelsson G, Jónsdóttir R, Þórðarson G, Groben R, Knobloch S, **Hauptmann AL**, Vang J, Gunnarsdóttir I, Jóhannsson R, Schönemann-Paul LD, Smáradóttir SE (2018). Biorefining and Biotechnology Opportunities in the West Nordic Region. *Matis Technical Report ISSN 1670-7192*

Christensen MMB, Hommel EE, **Jørgensen ME**, von Scholten BJ, Fleischer J, & Hansen CS (2018). Prevalence of Diabetic Neuropathy in Young Adults with Type 1 Diabetes and the Association with Insulin Pump Therapy. *Diabetes technology & therapeutics*.

Collins PY, Delgado RA Jr, Apok C, Baez L, **Bjerregaard P**, Chatwood S, Chipp C, Crawford A, Crosby A, Dillard D, Driscoll D, Erickson H, Hicks J, **Larsen CVL**, McKeon R, Partapuoli PJ, Phillips A, Pringle B, Rasmus S, Sigurðardóttir S, Silviken A, Stoor JP, Sumarokov Y, Wexler L. (2018). RISING SUN: Prioritized Outcomes for Suicide Prevention in the Arctic. *Psychiatr Serv*::appips201700505. doi: 10.1176/appi.ps.201700505.

GBD 2016 Alcohol Collaborators. (2018). Alcohol use and burden for 195 countries and territories, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet*;392(10152):1015-1035. doi: 10.1016/S0140-6736(18)31310-2. (Partly by **Peter Bjerregaard**)

Gjødese CU, **Jørgensen ME, Bjerregaard P**, Dahl-Petersen IK, **Larsen CVL**, Noël M, ... & Helge JW (2018). Associations between vitamin D status and atherosclerosis among Inuit in Greenland. *Atherosclerosis*, 268, 145-151.

Gounder PP, **Koch A**, Provo G, Lovlie A, Ederth JL, Axelsson M, Archibald CP, Hanley B, Mullen A, Matheson M, Allison D, Trykker H, Hennessy TW, Kuusi M, Chulanov V, ... McMahon BJ (2018). Summary of available surveillance data on hepatitis C virus infection from eight Arctic countries, 2012 to 2014. *Euro surveillance: bulletin Europeen sur les maladies transmissibles = European communicable disease bulletin*, 23(40), 1700408.

- 
- Grarup N, Moltke I, Andersen MK, Dalby M, Vitting-Seerup K, Kern T, Mahendran Y, Jørsboe E, **Larsen CVL**, Dahl-Petersen IK, Gilly A, Suveges D, Dedoussis G, Zeggini E, Pedersen O, Andersson R, **Bjerregaard P**, **Jørgensen ME**, Albrechtsen A, Hansen T. (2018). Loss-of-function variants in ADCY3 increase risk of obesity and type 2 diabetes. *Nature Genetics*. doi: 10.1038/s41588-017-0022-7.
- Grarup N, Moltke I, Andersen MK, Bjerregaard P, Larsen CVL, **Dahl-Petersen IK**, Jørsboe E, Tiwari HK, Hopkins SE, Wiener HW, Boyer BB, Linneberg A, Pedersen O, **Jørgensen ME**, Albrechtsen A, Hansen T. (2018). Identification of novel high-impact recessively inherited type 2 diabetes risk variants in the Greenlandic population. *Diabetologia*. doi: 10.1007/s00125-018-4659-2.
- Homø AS, Berntsen S, **Pedersen ML**. (2018). Gonorrhoea in Greenland: geographic differences in diagnostic activity and incidence of gonorrhoea in 2015. *Int J Circumpolar Health*. <https://doi.org/10.1080/22423982.2018.1445938>
- Houngaard L & Seibæk L** (2018). Evidence based nursing in Greenland-Pioneer spirit and long-term strategies for education and research. *Nordic Journal of Nursing Research*.
- Kløvgaard M, Nielsen NO, Sørensen TL, **Bjerregaard P**, Olsen B, Júlíusson PB, Roelants M, Chistesén HT. (2018). Growth of children in Greenland exceeds the World Health Organization growth charts. *Acta Paediatr*. doi: 10.1111/apa.14369.
- Knudsen AKS, Long M, Pedersen HS, **Bonefeld-Jørgensen EC** (2018). Persistent organic pollutants and haematological markers in Greenlandic pregnant women: the ACCEPT sub-study. *International journal of circumpolar health*, 77(1), 1456303.
- Larsen TJ, **Jørgensen ME**, **Larsen CVL**, Dahl-Petersen IK, Rønn PF, **Bjerregaard P**, & Byberg S (2018). Whole blood mercury and the risk of cardiovascular disease among the Greenlandic population. *Environmental research*, 164, 310-315.
- Lawaetz M, Jensen RG, Friberg J, Herlow L, Brofeldt S, Fleischer JG, **Homøe P**. (2018). Improved survival of head and neck cancer patients in Greenland. *Int J Circumpolar Health*;77(1):1536252. doi: 10.1080/22423982.2018.1536252
- Meklenborg I, **Pedersen ML**, **Bonefeld-Jørgensen EC**. (2018). Prevalence of patient treated with anti-diabetic medicine in Greenland and Denmark. A cross-sectional register study. *Int J Circumpolar Health*;77(1):1542930. doi: 10.1080/22423982.2018.1542930
- NCD Risk Factor Collaboration (NCD-RisC). (2018). Contributions of mean and shape of blood pressure distribution to worldwide trends and variations in raised blood pressure: a pooled analysis of 1018 population-based measurement studies with 88.6 million participants. *Int J Epidemiol*. doi: 10.1093/ije/dyy016. (Partly by **Peter Bjerregaard**)
- Nørtoft K, Carroll S, Siren A, **Bjerregaard P**, Larsen CVL, Brædder M, **Houngaard L & Jensen T** (2018): Enhancing Well-Being Among Older People in Greenland through Partnerships of Research, Practice and Civil Society, In: Heininen, L and H Exner-Pirot (eds.) (2018). *Arctic Yearbook 2018*. Akureyri, Iceland: Northern Research Forum. Available from <https://arcticyearbook.com/>
- Pedersen ML** (2018). Awareness of diabetes in the population of Greenland. *Clinical Nursing studies*. Vol 7 (1). DOI: <https://doi.org/10.5430/cns.v7n1p56>
- Pedersen ML** (2018). Microvascular complications in Nuuk, Greenland, among Greenlanders and non-Greenlanders diagnosed with type 2 diabetes. *Diabetes research and clinical practice*, 136, 1-6.
- Pedersen ML**, Lind O, Abelsen T, Olesen J & **Jørgensen ME** (2018). Gestational diabetes and macrosomia among Greenlanders. Time to change diagnostic strategy?. *International journal of circumpolar health*, 77(1), 1528126.
- Sonne C, Andersen-Ranberg E, Rajala EL, Agerholm JS, **Bonefeld-Jørgensen EC**, Desforges JP, Eulaers I, Jenssen BM, **Koch A**, Rosing-Asvid A, Siebert U, Tryland M, **Mulvad G**, Härkönen

---

T, Acquarone M, Nordøy ES, Dietz R, Magnusson U. (2018). Prevalence of antibodies against *Brucella* spp. in West Greenland polar bears (*Ursus maritimus*) and East Greenland muskoxen (*Ovibos moschatus*) *Polar Biology*.

Sonne C, Andersen-Ranberg E, Rajala EL, Agerholm JS, **Bonefeld-Jørgensen EC**, Desforges JP, Eulaers I, Jenssen BM, **Koch A**, Rosing-Asvid A, Siebert U, Tryland M, **Mulvad G**, Härkönen T, Acquarone M, Nordøy ES, Dietz R, Magnusson U. (2018). Seroprevalence for *Brucella* spp. in Baltic ringed seals (*Phoca hispida*) and East Greenland harp (*Pagophilus groenlandicus*) and hooded (*Cystophora cristata*) seals. *Vet Immunol Immunopathol*;198:14-18

Terkelsen AS, Long M, **Houngaard L & Bonefeld-Jørgensen EC** (2018). Reproductive factors, lifestyle and dietary habits among pregnant women in Greenland: The ACCEPT sub-study 2013–2015. *Scandinavian journal of public health*, 46(2), 252-261.

Tvermosegaard M, Rønn PF, **Pedersen ML, Bjerregaard P**, Dahl Pedersen I, Larsen CVL & **Jørgensen ME** (2018). Validation of cardiovascular diagnoses in the Greenlandic Hospital Discharge Register for epidemiological use. *International journal of circumpolar health*, 77(1), 1422668.

Wielsøe M, Eiberg H, Kern P, Lind O, Ghisari M, **Bonefeld-Jørgensen EC**. (2018). Genetic variations, exposure to persistent organic pollutants, and breast cancer risk: A Greenlandic case-control study. *Basic Clin Pharmacol Toxicol*. 2018 Sep;123(3):335-346. doi: 10.1111/bcpt.13002.

Young TK, Fedkina N, Chatwood S, **Bjerregaard P**. (2018). Comparing health care workforce in circumpolar regions: patterns, trends and challenges. *Int J Circumpolar Health*:1492825. doi: 10.1080/22423982.2018.1492825.

Yousaf U, Engholm G, Storm H, Christensen N, Zetlitz E, Trykker H, Sejersen F, **Bjerregaard P & Thygesen LC** (2018). Cancer Incidence and Mortality in Greenland 1983–2014—Including Comparison With the Other Nordic Countries. *EClinicalMedicine*, 2, 37-49.

### *Other publications*

**Aagaard T** (2018). Begreber om rehabilitering. *Tikiusaaq*, nr. 2. Available from <http://pk.gl/pk-organisering/fagblad-tikiusaaq/> In print.

**Aagaard T** (2018). Rehabilitering i hverdagslivet: Borgerperspektiver på livet som gammel i Nuuk. *Tikiusaaq*, nr. 1. Available from <http://pk.gl/pk-organisering/fagblad-tikiusaaq/>

Hansen AM, Ingebrigtsen L, Edmunds-Potvin S, Mulvad G, Weiler H, Ford J, Finner K, Lamoureux SF, Lafrenière MJ, Riva M, Larsen CVL, Healey G (2018). Chapter 4: Health and well-being. In: *Adaptation Action for a Changing Arctic: BAFFIN BAY/DAVIS STRAIT REGIONAL REPORT*.

Jensen M & **Montgomery-Andersen R** (2018). „Greenland: Building A Nation And A Dance Community” - How to develop an inclusive dance community with a global consciousness, yet with its own unique dance arena and community. *Iisimatusaat*, 2018.

**Jensen T, Schlütter M**, Olsen MALF, Jensen AL, Nørtoft K, Nielsen LO, **Houngaard L** (2018): Et godt liv for ældre i det sydlige Grønland - et eksplorativt studie af muligheder og udfordringer. *Arktisk Aldring rapport nr. 3*

**Jørgensen ME**, Tvermosegaard M, Rønn PF, **Bjerregaard P**, Dahl-Petersen IK, Larsen CV, **Pedersen ML**, Albrechtsen, Moltke I, Grarup N, Hansen T. (2018). Do Greenlandic Carriers of the TBC1D4 p.Arg684Ter Variant Have Increased Risk of Cardiovascular Disease? *Diabetes*; 67(Supplement 1): -. <https://doi.org/10.2337/db18-439-P>

**Montgomery-Andersen, R.** (2018). Skikke som kan støtte fødende i Grønland.

**Mulvad G** (2018). Food Security in Greenland. In: Exner-Pirot, H., B. Norbye and L. Butler (eds.) (2018). *Northern and Indigenous Health and Health Care*. Saskatoon, Saskatchewan: University of Saskatchewan. Available from: [openpress.usask.ca/northernhealthcare](http://openpress.usask.ca/northernhealthcare)

---

**Mulvad G** (2018). Health Research and Health Professional Education in Greenland. In: Exner-Pirot, H., B. Norbye and L. Butler (eds.) (2018). Northern and Indigenous Health and Health Care. Saskatoon, Saskatchewan: University of Saskatchewan. Available from: [openpress.usask.ca/northernhealthcare](http://openpress.usask.ca/northernhealthcare)

Nørtoft K, Carroll S, Siren A, **Bjerregaard P**, Larsen CVL, Brædder M, **Houngaard L** & Jensen T (2018). Enhancing Well-Being Among Older People in Greenland through Partnerships of Research, Practice and Civil Society, In: Heininen, L. and H. Exner-Pirot (eds.). Arctic Yearbook. Akureyri, Iceland: Northern Research Forum. Available from <https://arcticyearbook.com/>

Pedersen IB, **Andersen S** (2018). Assessment of the thyroid patient. Oxford Textbook of Endocrinology and Diabetes 2018 3rd edition

**Schlütter M** (2018): Ældres livshistorier – et bidrag til historien om Grønland. Tidsskriftet Grønland.

### *Oral & poster presentations*

**Montgomery-Andersen R**, Ireland S (2018). Worlds Apart: Exploring the logics of Indigenous women's planned birthplace locations in remote arctic Greenland and tropical Australia. Abstract & presentation at the 17th International Congress on Circumpolar Health.

**Montgomery-Andersen R**, Ireland S (2018). The EHLF Analysis: Exploring reproductive health inequity and environmental health literacy in Australian and Greenlandic Indigenous communities. Abstract & presentation at the 17th International Congress on Circumpolar Health.

**Montgomery-Andersen R** (2018). IceHot Dance Festival

**Seibæk L & Houngaard L** (2018). Patient involvement in Greenland hospital care: a clinical research project. Abstract & presentation at the 17th International Congress on Circumpolar Health.

## **Publications in 2017**

### *Peer-reviewed articles*

**Aagaard, T.** (2017). Patient involvement in healthcare professional practice—a question about knowledge. International journal of circumpolar health, 76(1), 1403258.

**Augustussen, M., Houngaard, L., Pedersen, M. L., Sjøgren, P., & Timm, H.** (2017). Relatives' level of satisfaction with advanced cancer care in Greenland—a mixed methods study. International journal of circumpolar health, 76(1), 1335148.

**Augustussen, M., Sjøgren, P., Timm, H., Houngaard, L., & Pedersen, M. L.** (2017). Symptoms and health-related quality of life in patients with advanced cancer—a population-based study in Greenland. European Journal of Oncology Nursing, 28, 92-97.

Berntsen, S., Karlsen, A. P. H., **Pedersen, M. L., & Mulvad, G.** (2017). Gonorrhoea in Greenland, incidence and previous preventive measures: a review to improve future strategies. International journal of circumpolar health, 76(1), 1350092.

Bjerregaard-Olesen, C., Bossi, R., Liew, Z., Long, M., Bech, B. H., Olsen, J., Henriksen, T.B., Berg, V., Nøst, T.H., Zhang, J.J., Odland, J. Ø., **Bonefeld-Jørgensen, E.C.** (2017). Maternal serum concentrations of perfluoroalkyl acids in five international birth cohorts. International journal of hygiene and environmental health, 220(2), 86-93.

Buckley, M. T., Racimo, F., Allentoft, M. E., Jensen, M. K., Jonsson, A., Huang, H., ... & **Jørgensen, M. E.** (2017). Selection in Europeans on fatty acid desaturases associated with dietary changes. Molecular biology and evolution, 34(6), 1307-1318.

Dahl-Petersen, I. K., Brage, S., **Bjerregaard, P., Tolstrup, J., & Jørgensen, M. E.** (2017). Physical activity and abdominal fat distribution in Greenland. Medicine and science in sports and exercise, 49(10), 2064.

- 
- Demant, M. N.**, Jensen, R. G., Jakobsen, J. C., Gluud, C., & **Homøe, P.** (2017). The effects of ventilation tubes versus no ventilation tubes for recurrent acute otitis media or chronic otitis media with effusion in 9 to 36 month old Greenlandic children, the SIUTIT trial: study protocol for a randomized controlled trial. *Trials*, 18(1), 30.
- Hauptmann, A. L.**, Sicheritz-Pontén, T., Cameron, K. A., Bælum, J., Plichta, D. R., Dalgaard, M., & Stibal, M. (2017). Contamination of the Arctic reflected in microbial metagenomes from the Greenland ice sheet. *Environmental Research Letters*, 12(7), 074019.
- Jensen, R. G., Johansen, H. K., Bjarnsholt, T., Eickhardt-Sørensen, S. R., & **Homøe, P.** (2017). Recurrent otorrhea in chronic suppurative otitis media: is biofilm the missing link?. *European Archives of Oto-Rhino-Laryngology*, 274(7), 2741-2747.
- Lou, S., Frumer, M., **Schlütter, M. M.**, Petersen, O. B., Vogel, I., & Nielsen, C. P. (2017). Experiences and expectations in the first trimester of pregnancy: a qualitative study. *Health Expectations*, 20(6), 1320-1329.
- Nielsen, L. O., Krebs, H. J., Albert, N. M., Anderson, N., Catz, S., Hale, T. M., ... & Spindler, H. (2017). Telemedicine in Greenland: Citizens' Perspectives. *Telemedicine and e-Health*, 23(5), 441-447.
- Madsen, S. S., Wetterstrand, V. J. R., & **Pedersen, M. L.** (2017). Dental caries and weight among children in Nuuk, Greenland, at school entry. *International journal of circumpolar health*, 76(1), 1311535.
- Pedersen, M. L.** (2017). High awareness of diabetes in the health care system in Greenland measured as a proportion of population tested with glycated haemoglobin within 2 years. *Diabetology & metabolic syndrome*, 9(1), 30.
- Rønn, P. F., Lucas, M., Sidi, E. A. L., Tvermosegaard, M., Andersen, G. S., Lauritzen, T., ... & **Jørgensen, M. E.** (2017). The obesity-associated risk of cardiovascular disease and all-cause mortality is not lower in Inuit compared to Europeans: A cohort study of Greenlandic Inuit, Nunavik Inuit and Danes. *Atherosclerosis*, 265, 207-214.
- Rønn, P. F., Andersen, G. S., Lauritzen, T., Christensen, D. L., Aadahl, M., Carstensen, B., & **Jørgensen, M. E.** (2017). Ethnic differences in anthropometric measures and abdominal fat distribution: a cross-sectional pooled study in Inuit, Africans and Europeans. *J Epidemiol Community Health*, 71(6), 536-543.
- Skotte, L., **Koch, A.**, Yakimov, V., Zhou, S., Søborg, B., Andersson, M., ... & **Pedersen, M. L.** (2017). CPT1A Missense Mutation Associated With Fatty Acid Metabolism and Reduced Height in Greenlanders. *CLINICAL PERSPECTIVE*. *Circulation: Genomic and Precision Medicine*, 10(3), e001618.
- Wielsøe, M., Kern, P., & **Bonefeld-Jørgensen, E. C.** (2017). Serum levels of environmental pollutants is a risk factor for breast cancer in Inuit: a case control study. *Environmental Health*, 16(1), 56.
- Wielsøe, M., Bjerregaard-Olesen, C., Kern, P., & **Bonefeld-Jørgensen, E. C.** (2018). Receptor activities of persistent pollutant serum mixtures and breast cancer risk. *Endocrine-related cancer*, 25(3), 201-215.

#### *Other types of publications*

- Exploring challenges and possibilities in providing welfare among the elderly in southern Greenland - an exploratory study. Nielsen, Lasse Overballe; **Schlütter, Mette; Hounsgaard, Lise**; Nørtoft, Kamilla Pernille Johansen; **Jensen, Tenna**. 2017. Poster session præsenteret ved Conference of the European Transcultural Nursing Association, Odense, Danmark.
- Nørtoft, K. P. J., & Jensen, T. (2017). Aldringsidentitet i spændingsfeltet mellem fangersamfund og velfærdsstat. In *Psyke Og Logos*.

---

# GRØNLANDSMEDICINSK SELSKAB 50 ÅR

D. 4. juni 2020 fyldte Grønlandsmedicinsk Selskab 50 år. Selskabet, hvis første formål var at '*fremme den human-biologiske forskning i Grønland gennem information, koordinering og rådgivning*', blev dannet ved et stiftende møde torsdag d. 4. juni 1970 på Medicinsk-Anatomisk institut, Nørre Allé 63, København. På det tidspunkt hed Selskabet Dansk Selskab for Medicinsk Forskning i Grønland.

Bestyrelsen bestod af seks personer med solid grønlandserfaring:

- Jørgen Balslev Jørgensen (formand), kirurg, antropolog
- Ole Berg, embedslæge, tidligere distriktslæge Narsaq
- Arne Østergaard Hansen, assisterende Landslæge for Grønland, tidligere distriktslæge Uummanaq
- Bent Harvald, prof. intern medicin Odense, tidligere overlæge DIH
- Rigmor Rørdam Holm, kasserer, Ministeriet for Grønlands medicinalkonsulent, tidligere distriktslæge Ammassalik
- Carsten Schmidt, overlæge ØNH Næstved, tidligere konsulent Østgrønland



Malt olie på lærred af Harald Molkte, hænger til den til enhver tid siddende formand. Billedet bærer på bagsiden teksten: '31.1.1983: Til Grønlandsmedicinsk Selskab. Billedet er givet til min kone, Lis, f. Storm, af hendes skolekammerat og gode veninde Jette Bang, ca. 1945. Sign. Sven Fogh, tropelæge'.

Som medlemmer kunne optages '*...enhver med interesse for medicinsk, socialmedicinsk, odontologisk, veterinærmedicinsk og anden biologisk forskning*', men der blev samtidigt lagt '*...vægt på, at ikke mindst sygeplejersker og tandlæger i Grønland blev gjort bekendt med selskabets eksistens*'.

Ved Selskabets stiftelse var der 60 medlemmer, heraf 45 læger, 4 tandlæger, 2 franske antropologer og 10 studerende, sekretærer og teknikere med grønlandsmedicinsk interesse.

1. Ved mødet blev holdt syv State of the art-foredrag:
2. Robert Gessain: Franske antropologiske undersøgelser i Østgrønland
3. Hans Olof Bang: Lipidundersøgelser i Grønland (med Jørn Dyerberg)
4. Ole Berg: Bolig og sygdom
5. Eivind Gudmand-Høyer og Allan McNair: Disaccharidmalabsorption
6. Inge Lyng: Psykiatrisk epidemiologi
7. Finn Prætorius: Mundhulemetaplasier
8. Viggo Clemmesen: Glaukomundersøgelser (med Poul Helge Alsbirk)

Flere af disse oplægsholdere har i de efterfølgende årtier været særdeles aktive i selskabet, og er fortsat medlemmer.

Siden da har selskabet naturligt nok udviklet sig:

Ved årsskiftet 2019-20 var der 183 medlemmer; 212 i 2015-16. I dag opgøres medlemsskaren ikke i helt så specifikke faggrupper, men i ordinære medlemmer, pensionister, studerende, udlandsboende, ekstraordinære og ikke-lægelige medlemmer. De ordinære medlemmer er de fleste (54%), mens de ikke-lægelige medlemmer udgør 13%.

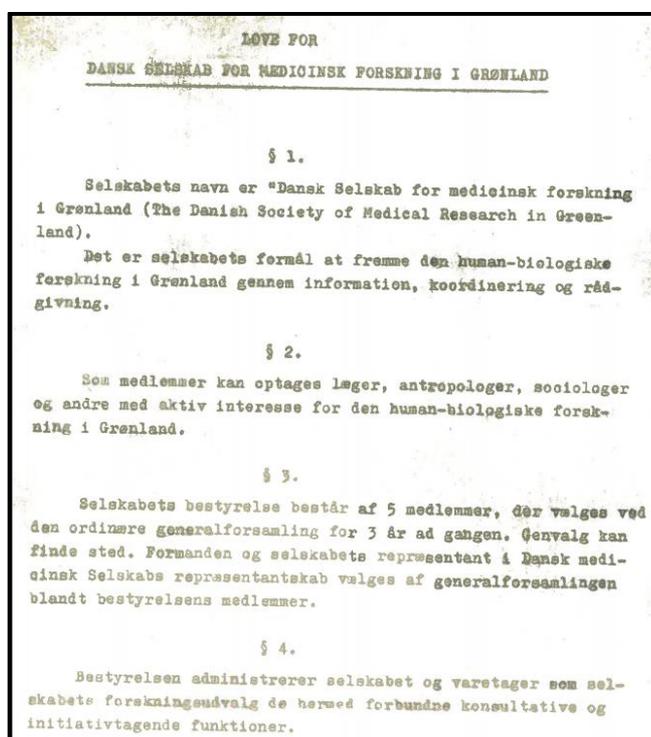
Selskabet er også med et nutidigt begreb blevet mere inkluderende. Fra at være et selskab, der fokuserede mest på forskning, er det nu blevet til et selskab omhandlende grønlandsmedicin i bredeste forstand. I 1997 skiftede selskabet navn til Grønlandsmedicinsk Selskab, og

formålsparagraffen skiftede til '...at virke for oplysning og debat om arktisk medicinske forhold og at fremme den sundhedsfaglige forskning i Grønland gennem information, koordinering og rådgivning'. Medlemmer kunne være 'alle med interesse for arktisk medicin og sundhedsfaglig forskning i Grønland', uanset faggruppe.

I 1997 dannedes også en lokalafdeling i Nuuk, som har egen bestyrelse.

Men vigtige elementer af selskabet er uændrede.

Ved 25-års jubilæet i 1997 skrev den daværende formand Lars Gehlert Johansen, 'Ærlig interesse, dybt engagement og ofte langvarig deltagelse er termer, der karakteriserer forfatterne til denne publikation og vel også Grønlandsmedicinsk Selskabs medlemsskare i Danmark og i Grønland. At drive videnskab i og om Grønland kræver meget. Det samme gør det at løfte opgaven omkring sundhed i Grønland, både hvad angår behandling og forebyggelse'. Den samme ærlige interesse, det samme dybe engagement og den samme langvarige deltagelse kendetegner også selskabets medlemmer i dag.



Selskabets vedtægter ved stiftelsen, 4. juni 1970.

Ligesom det første møde indeholdt syv videnskabelige foredrag, er medlemsmøderne med videnskabelige oplæg kernen i Selskabets virke. I vedtægterne står, at der skal holdes mindst ét videnskabeligt møde om året. Det bliver fast til fire møder, to i København og to i Nuuk. Oplæg er stadig State of the art-oplæg om grønlandsmedicinske emner, men et fast element er oplæg om andet end sundhed og sygdom, blot de er relateret til Grønland i bredeste forstand. Der har således inden for de senere år været afholdt oplæg om så forskellige emner som grønlandshajen, der bliver 500 år; kartoffelavl i Sydgrønland; krydsning af indlandsisen (ved et medlem af Selskabets bestyrelse) og Lauge Koch-striden i Grønland 1935-38.

I alt er til og med 2020 afholdt 189 videnskabelige møder i Selskabet, alle med gode oplæg, hyggeligt selskab og sædvanligvis god mad!

---

Hvert 3. år er Grønlandsmedicinsk Selskab, som medlem af the International Union for Circumpolar Health (IUCH), medarrangør af den store ICCH-konference, International Conference on Circumpolar Health, der finder sted på skiftende lokaliteter i det cirkumpolare område. Denne konference er den største konference om cirkumpolare sundhedsforhold og tiltrækker deltagere fra hele det cirkumpolare område og andre dele af verden, f.eks. så langt væk fra som Australien.

Forskudt af dette, men stadig hvert 3. år, afholder Selskabet sammen med Grønlands Lægekredsforening, Grønlands Sygeplejerskeforening og Grønlands Center for Sundhedsforskning 'NUNA MED'-konferencen, som er Grønlands svar på ICCH-konferencerne. Her fokuseres specifikt på Grønlandske sundhedsforhold, men tiltrækker også, udover mange deltagere fra Grønland og Danmark, et stigende antal deltagere fra andre lande, primært i det cirkumpolare område.

Grønlandsmedicinsk Selskab udgiver nyheder om videnskabelige resultater i form af Kvartalets Tal, om begivenheder af interesse for Selskabets medlemmer, PhD-forsvar mv., og har udarbejdet vejledninger, som f.eks. 'Vejledning om god forskningspraksis i Grønland'.

Endeligt støtter Selskabet International Journal of Circumpolar Health, det eneste tidsskrift dedikeret til sundhedsforskning i Arktis.

Selvom Selskabet efterhånden har en del år på bagen, er selskabet levende og aktivt. Alle interesserede er velkomne i Selskabet. Vi tør godt love, at man som medlem vil få mange gode oplevelser i godt selskab, også i de næste 50 år!



Deltagere ved NUNA MED konferencen i Nuuk, 2019, som Grønlandsmedicinsk Selskab var medarrangør af.

*Anders Koch, Formand, Grønlandsmedicinsk Selskab*

## Annual report 2020

---

Greenland Centre of Health Research

Manutooq 1, 3905 Nuusuaq

Institute of Nursing and Health Research

Postbox: 1061

University of Greenland

E-mail: HealthResearch@uni.gl

