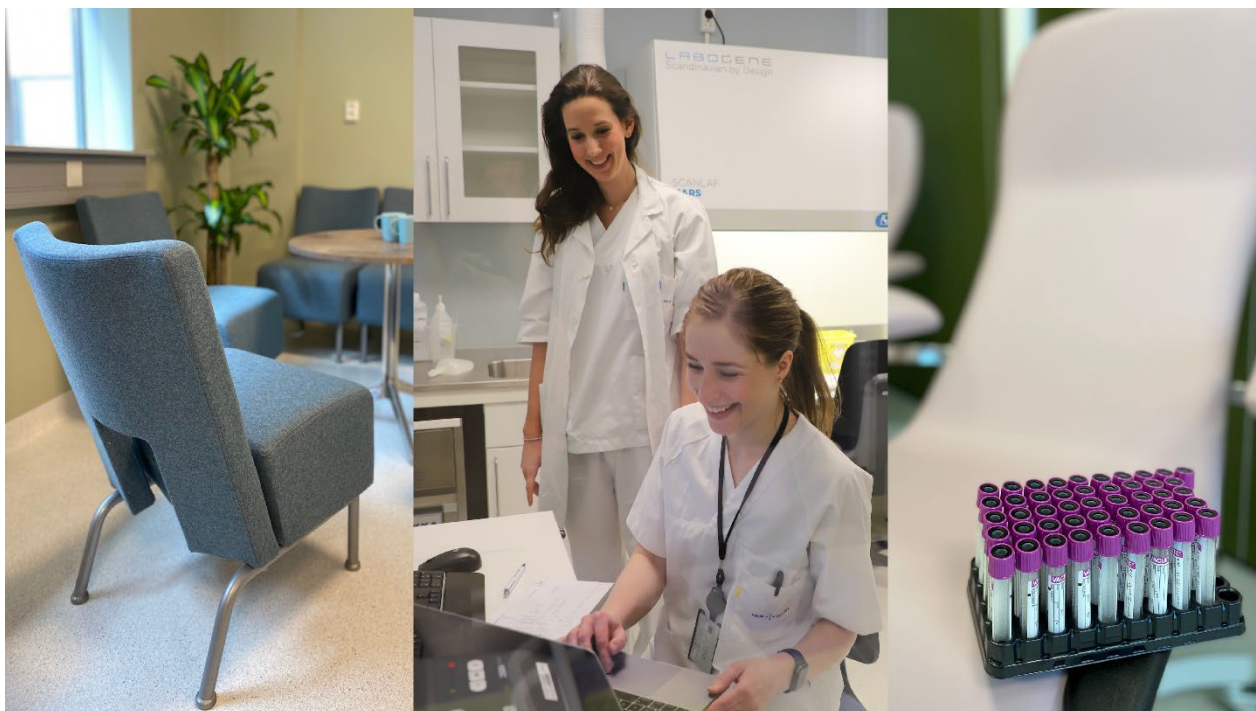


## Research at Akershus University Hospital 2019



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## 1. Summary

A main objective for Akershus University Hospital in 2019 has been to strengthen and highlight the university function. This is a continuation of a long-term commitment to research that over time has resulted in an increasing number of scientific articles and public defences from the hospital.

A total of 322 scientific articles were published from Akershus University Hospital in 2019, compared with 323 the year before. 24 percent of the articles were published in level 2 journals. The number of participants enrolled in the PhD programme is increasing, and in 2019 13 employees defended their dissertation.

The number of publication points, calculated on the basis of publications and doctoral degrees, was 256 in 2019. This was a decrease from 2018, when the hospital had 289 points. In 2018, Akershus University Hospital was ahead of Stavanger University Hospital in the number of points, and we have retained this position for the second year in a row.

The publication list from Akershus University Hospital for 2019 shows that researchers from other institutions collaborate closely with researchers, especially researchers from the University of Oslo and Oslo University Hospital. The list also shows that there is increasing cooperation with international institutions.

A total of 183.6 man-years were used for research at Akershus University Hospital in 2019. Much of the research was externally funded. In 2019, the hospital was allocated NOK 64 million in external research funding, a decrease from 2018 when the grant was just over NOK 83 million. Important sources of funding are the South-Eastern Norway Regional Health Authority, the Research Council of Norway and The Norwegian Cancer Society. NOK 6 million was allocated as internal strategic research funding. The allocation was based on external peer review of submitted applications, and funding will go to research areas that are considered important to the hospital.

Clinical research is a strategic focus area, and Akershus University Hospital has since 2014 seen a steady increase in the number of clinical trials at the enterprise. In 2019, 38 new clinical treatment trials/appointments were reported to the Data Protection Officer, this was a decrease in the number of new clinical treatment trials/appointments compared to previous years. The research environment in the hospital participates actively in NorCrim, and thus contributes to the national collaboration in clinical research.

In 2019, work started on establishing a Clinical Research Outpatient Clinic at the hospital. The focus in 2019 has been on the design and conversion of premises, in addition to the purchase and receipt of elementary equipment for the implementation of clinical trials.

## 2. Organisation of research at Akershus University Hospital

The function of Director of Research and Innovation was elevated from level 3 to level 2 in the organisation in September 2016. The reporting line for research follows the lead line in the hospital. The Division of Mental Health, the Division of Medicine, the Division of Gynaecology and Obstetrics and the Division of Paediatric and Adolescent Medicine have their own research departments. The Head of Research sits on the Division's management team and acts as an advisor to the Division Director on research issues. Divisions without a research department have research managers who are part-time employed on the division director's staff.

Akershus University Hospital (Ahus) has a formalized collaboration with the University of Oslo (UiO) on research and teaching of medical students. The Department of Clinical Medicine at the Faculty of Medicine has a resident manager who is a scientific employee who reports to the head of department. The person in question is an observer in the hospital management. The department has local administration at Campus Ahus. The research management in the university line is organized into three clinics; Division of Medicine and Division of Diagnostics and Technology, Division of Surgery and Technology, Division of Surgery, Orthopaedic Clinic and Division of Gynaecology and Obstetrics, as well as Division of Health Services Research and Psychiatry (Health Services Research Unit organized directly under the Research and Innovation Division and Division of Mental Health).

A significant proportion of the researchers at Ahus have combined positions with UiO, and thus also have a connection to the university line. These report to the head of the clinic at the University for their University Tasks and to the head of department for tasks related to the employment relationship at Ahus.

Research committees have been established in most divisions and clinics and joint research committees for Ahus and Campus Ahus. The committee consists of representation from the research management, research managers from the clinic/division and clinic managers from the university. The joint research committee, which is a strategic advisory body for the CEO in research matters, is anchored in the collaboration agreement with the university.

### 3. Resource use

In 2019, a total of 183.6 man-years were used for research and development work (R&D). Of this, research man-years accounted for 167.9. In addition, 44.5 man-years are associated with UiO. Ahus also has employees who have side positions/doctoral scholarships at OsloMet and OsloMet has employees with side positions at Ahus.

The research support at the hospital is partly financed by UiO and partly by Ahus. The research support includes library, data capture, statistics, biobank, administrative and technical services.

Table 1 shows the distribution of research man-years and the number of employees per division/clinic at Ahus. Table 2 shows the distribution of man-years associated with Campus Ahus, UiO.

*Table 1: Distribution of man-years and employees in R&D by division. Akershus University Hospital 2019*

<b>Ahus 2019</b>	DDT	PSYK	KIR	Orto	MED	KK	BUK	FID/ HØKH	FID/Forskings- støtte/andre	Analyse/ Datafangst	Medisin og helsefag	Totalt
<b>Internt finansiert</b>	11,1	25,2	7,9	5,0	27,6	2,9	4,4	7,7	13,1	0,0	1,4	<b>106,3</b>
<i>Antall ansatte</i>	48,0	118,0	32,0	70,0	62,0	9,0	15,0	12,0	24,0	1,0	4,0	
<b>Eksternt finansiert</b>	4,6	4,6	2,2	0,9	46,4	4,0	3,5	10,4	0,6	0,3		<b>77,3</b>
<i>Antall ansatte</i>	8,0	11,0	6,0	9,0	87,0	11,0	6,0	22,0	3,0	2,0		
<b>Ahus totalt årsverk</b>	<b>15,6</b>	<b>29,8</b>	<b>10,1</b>	<b>5,9</b>	<b>73,9</b>	<b>6,9</b>	<b>7,8</b>	<b>18,1</b>	<b>13,8</b>	<b>0,3</b>	<b>1,4</b>	<b>183,6</b>

*Table 2: Divisional distribution of man-years and employees in scientific positions. Campus Ahus, UiO, 2019*

<b>UiO - Campus Ahus 2019</b>	DDT	PSYK	KIR	Orto	MED	KK	BUK	HØKH	Forskings- støtte*	Analyse/ Datafangst*	Adm ansatte*	Totalt
<b>Årsverk internt finansiert</b>	2,0	0,6	4,4	1,7	12,8	1,6	3,4	1,7	5,0	2	2,5	<b>37,7</b>
<i>Antall ansatte internt finansiert</i>	8,0	3,0	9,0	5,0	30,0	4,0	5,0	3,0	5,0	2	3	
<b>Årsverk eksternt finansiert</b>	0,0	0,0	0,8	0,0	3,6	0,0	0,2	1,2	1,0	0	0	<b>6,8</b>
<i>Antall ansatte eksternt finansiert</i>	0,0	0,0	4,0	0,0	6,0	0,0	1,0	3,0	1,0	0	0	
<b>Årsverk UiO totalt</b>	<b>2,0</b>	<b>0,6</b>	<b>5,2</b>	<b>1,7</b>	<b>16,4</b>	<b>1,6</b>	<b>3,6</b>	<b>2,9</b>	<b>6,0</b>	<b>2,0</b>	<b>2,5</b>	<b>44,5</b>

Research support includes the engineers at EpiGen as well as the IT manager

Analysis/data capture includes the two UiO-employed advisors

Adm employees are univ admin Campus Ahus

Table 3 shows the development in the number of man-years over the last seven years.

*Table 3: Development of divisional distribution of man-years for R&D at Ahus and Campus Ahus for the period 2013 - 2019*

	DDT	PSYK	KIR	Orto*	MED	KK	BUK	HØKH	Forsknings- støtte**	Analyse/ Datafangst	Adm ansatte**	Enhet for medisin og helsefag	TOTAL Forskning og utvikling
<b>Ahus årsverk</b>													
2013	12,8	22,2	8,5		46	7	3,3	23	8,5				131,3
2014	13	30,6	4,4	4,9	55,6	6,9	9	19,7	9,6				153,7
2015	11	29,5	5,3	7,4	64,8	6,1	12,8	21,9	10,5				169,3
2016	17,9	47,7	6,4	6,2	71,2	5,4	11,4	19,9	5,8	3,2			195,1
2017	19,3	44	6,1	6,7	69,3	6,3	10	23,4	5,8	3		0,2	194
2018	19,3	44	6,1	6,7	69,3	6,3	10	23,4	5,8	3		0,2	194***
2019	15,6	29,8	10,1	5,9	73,9	6,9	7,8	18,1	13,8	0,3		1,4	183,6
<b>UiO årsverk</b>													
2013	2,4	0,9	8,5		13	1,4	2,1	1,6	7				36,9
2014	1,4	0,4	6,2	3,2	16,7	1,9	1,4	2,8	9,8				43,8
2015	1,4	0,4	7,7	2,9	20	1,4	1,4	1,6	10,5				47,3
2016	1,4	0,4	7	2,7	19,3	1,6	2,4	2,8	6,4	2	2,7		48,7
2017	1,6	0,6	16	5	22,3	3	4	5	6	2	2,5		50,6
2018	1,6	0,6	16	5	22,3	3	4	5	6	2	2,5		50,6
2019	2	0,6	5,2	1,7	16,4	1,6	3,6	2,9	6	2	2,5		44,5

\* In 2013 Orto was organised under the Division of Surgery.

\*\* This includes the research engineers at EpiGen, statisticians and IT support. Data capture includes the two UiO employee advisors.

DDT:	Division of Diagnostics and Technology
PSYK:	Division of Mental Health
KIR:	Division of Surgery
ORTHO:	Orthopaedic Clinic
WITH:	Division of Medicine
KK	Division of Gynaecology and Obstetrics
BUK:	Division of Paediatric and Adolescent Medicine
HØKH:	Health Services Research Unit including Head and neck research group

## 4. Scientific production

In 2019, 322 articles with the address Akershus University Hospital were registered in CRISTin (Current Research Information System in Norway)<sup>1</sup>, compared to 323 the previous year. Of these, 24 per cent were published in a level 2 journal, the rest in a level 1 journal. Table 4 shows the number of publications by level 1 and 2 for the years 2014-2019. Table 5 shows the distribution of scientific articles and publication points per division/clinic in 2019.

Figure 1 shows the divisional development of publications for the period 2011 – 2019.

*Table 4: Number of scientific publications by level 1 and 2 from 2014 - 2019*

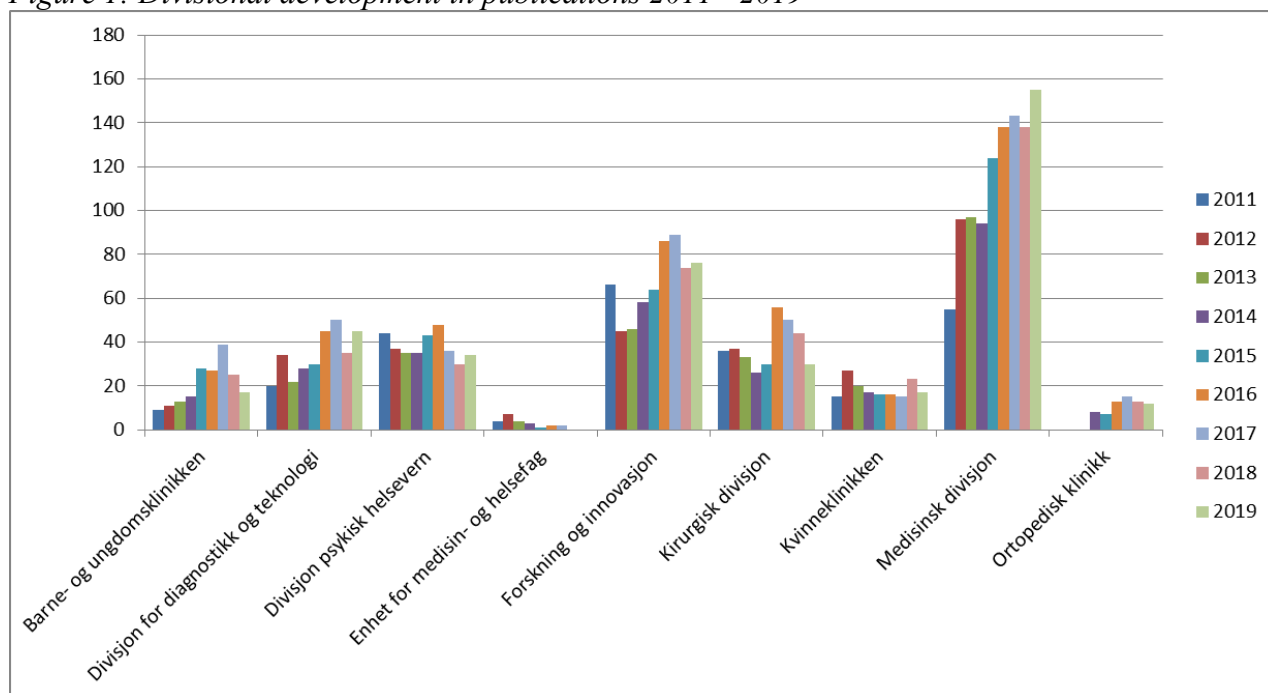
Year	Number of Level 1	Number of level 2	Total number of articles
2014	191	47	238
2015	234	51	285
2016	289	74	363
2017	297	61	358
2018	253	70	323
2019	245	77	322

*Table 5: Scientific publications and publication points by division 2019*

	Total	Level 1	Publ. point	Level 2	Publ. point
Division of Paediatric and Adolescent Medicine	17	16	7,84	1	1,56
Division of Diagnostics and Technology	45	38	13,87	7	4,20
Division of Mental Health	34	26	11,68	8	11,19
Research and Innovation	76	63	21,98	13	16,07
Division of Surgery	30	21	9,84	9	10,03
Division of Gynaecology and Obstetrics	17	11	6,55	6	8,81
Division of Medicine	155	112	44,13	43	46,14
Orthopaedic Clinic	12	11	5,31	1	1,13

<sup>1</sup> <http://www.cristin.no>

Figure 1: Divisional development in publications 2011 - 2019



In 2019, 13 employees defended their dissertation. Table 6 shows the distribution of the number of completed doctoral degrees per division. Chapter 13 provides an overview of who defended their thesis with a brief summary of the various theses.

Table 6: Number of public defences per division 2013-2019

	2013	2014	2015	2016	2017	2018	2019
Division of Medicine	4	5	8	2	6	6	3
Research and Innovation	2	4	3	1	2	2	
Division of Gynaecology and Obstetrics		4	1	2		1	1
Division of Diagnostics and Technology				2	1	1	1
Division of Paediatric and Adolescent Medicine		1	2	1	2	2	4
Division of Surgery	3			1	1	3	
Division of Mental Health	1	1	1		3	6	1
Orthopaedic Clinic			2		1	1	3



The number of publication points, calculated on the basis of publication and doctoral degrees, decreased slightly from 289 in 2018 to 256 in 2019. Figure 2 shows a comparison between the Norwegian university hospitals for the period 2006 to 2019.

Figure 2: Publication points (publications and doctoral degrees) – comparison between the Norwegian university hospitals for the period 2006 – 2019.

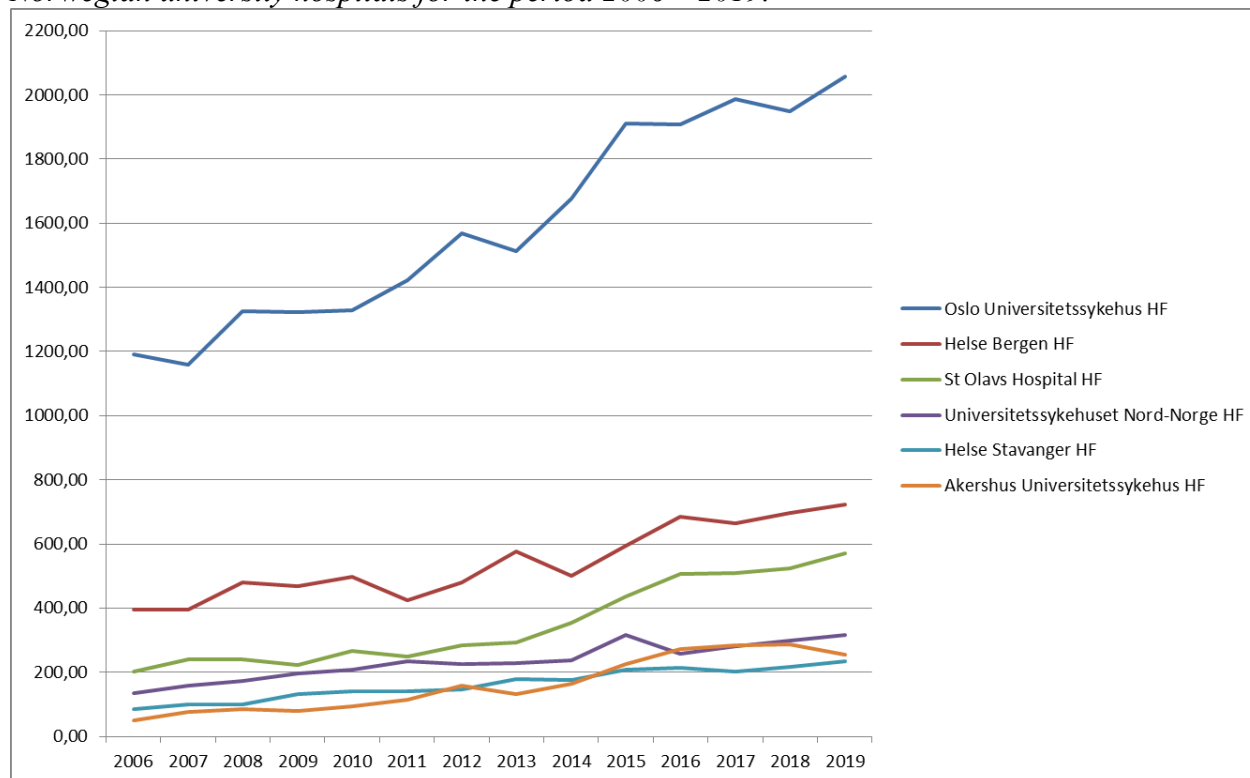


Table 7 shows the innovation activity for 2019. 9 DOFIs (report on invention) have been submitted to our TTO (Technology Transfer Office, Inven2), two patents and one license agreement.

Table 7: Innovation activity 2019 - reported from Inven2

	Number
DOFI	9
Patents	2
License Agreement	1

## 5. Development in the number of publications and doctorates 2009-2019

Table 8 and figures 3 and 4 show the development in the number of scientific publications and the number of awarded doctoral degrees in the period from 2009 to 2019. The number of published articles has shown a positive increase in recent years, but we see a slight decrease for 2018 and 2019. The number of awarded doctoral degrees has fluctuated somewhat, but there is an underlying growth from 2008 to 2019.

Table 8: Publications and doctorates 2008-2019

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Publications	107	130	210	238	228	238	285	363	358	323	322
Doctoral degrees	7	10.5	8	20	10	15	17	9	16	22	13

Figure 3: Development in the number of publications

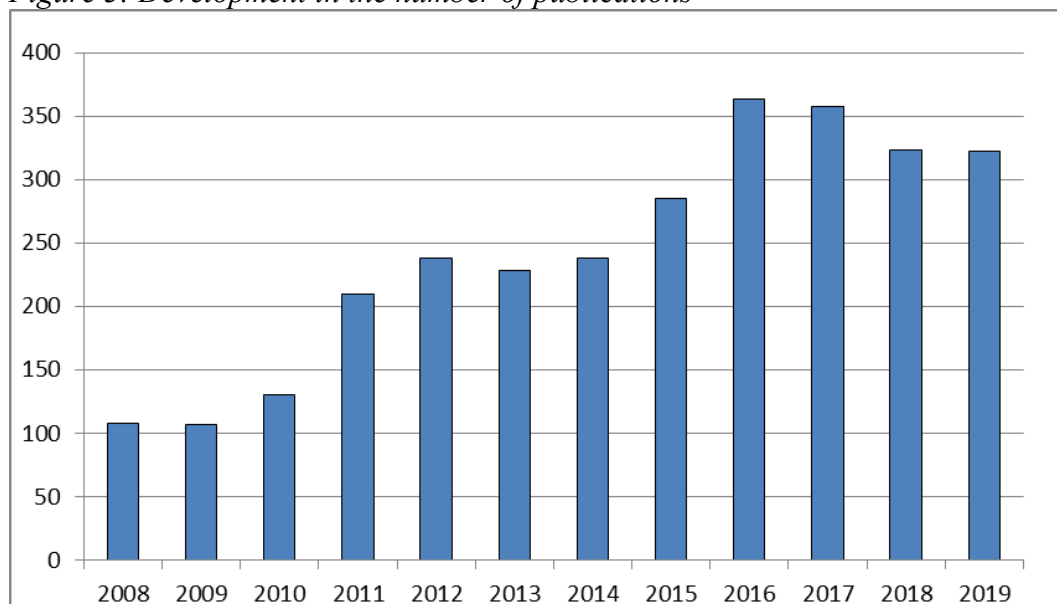
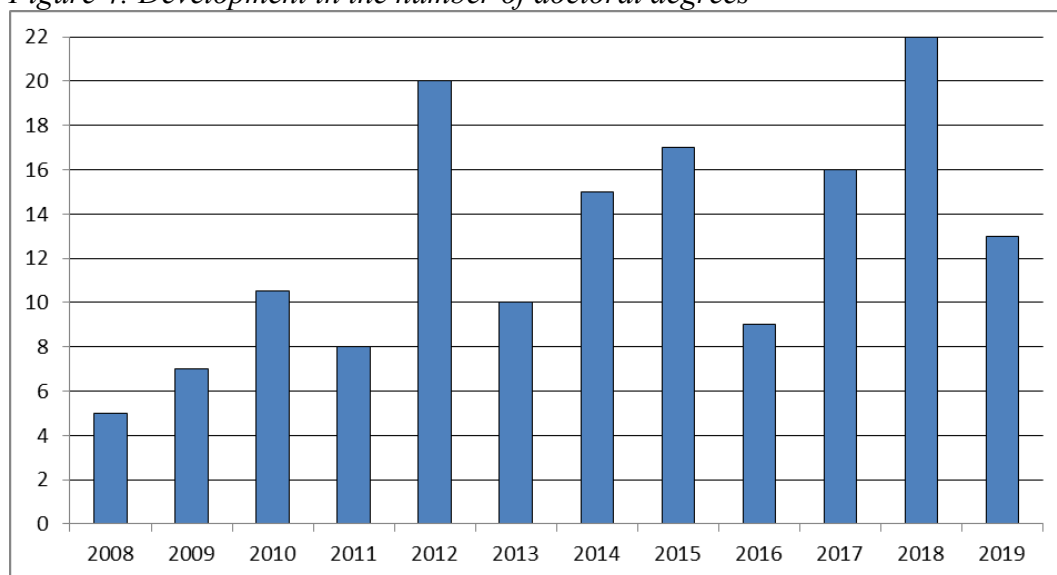


Figure 4: Development in the number of doctoral degrees



## 6. Clinical studies/ testing treatment

Clinical treatment studies, or experimental treatment, include the inclusion of patients and aim to improve existing treatment routines and/or to develop and evaluate new ones. The treatment can be the use of drugs, medical technology, physiotherapy, special diets/food supplements, surgical methods, talk therapy and comparative effect studies such as evaluation of diagnostic methods, established drugs or streamlining of processes and treatment routines.

Akershus University Hospital (Ahus) has a catchment area of approx. 560,000 inhabitants and includes residents in the Follo, Romerike and Kongsvinger regions, as well as the three northernmost districts in Oslo; Alna, Grorud and Stovner. This provides an opportunity to recruit participants within diseases that affect large patient groups where the offer of participation in clinical treatment studies ensures access to new, experimental and potentially better treatment. For the health service, participation in clinical treatment studies could lead to improved treatment quality and new methods for efficient operation and priorities that can be transferred to clinical practice.

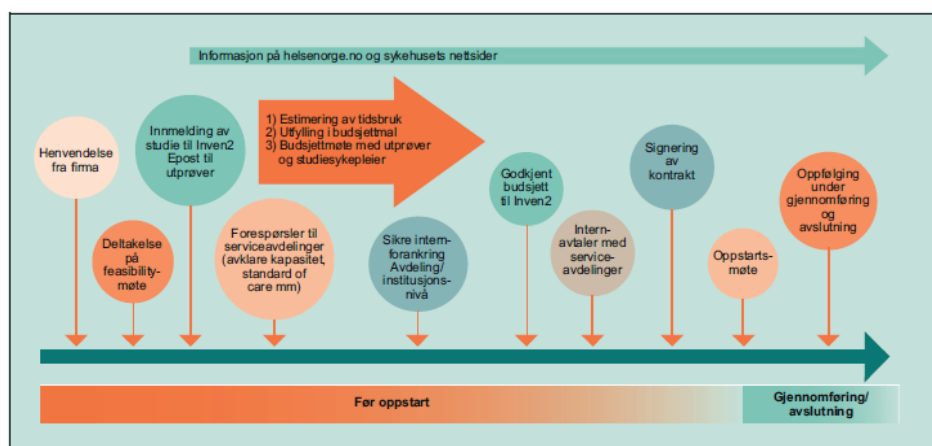
There is a strong political desire for more clinical treatment studies in Norway, something that is also discussed in the Health Care Report 2018-2019 where, among other things, it is shown the standardized course for clinical treatment studies that has been developed and implemented at Ahus (see figure 5). The purpose of the standardized course is to stimulate an increase in the number of studies at Ahus through a professional, standardized and efficient handling of new studies. The Ministry of Health and Care Services (MOH) started in 2019 to prepare an action plan for clinical studies with expected completion during 2020.

Figure 5: Standardized course for clinical studies, cf. Health industry report 2018-2019

100

Meld. St. 18  
Helsenæringen

2018-2019



Figur 8.11 Standardisert forløp for industristudier ved Akershus universitetssykehus

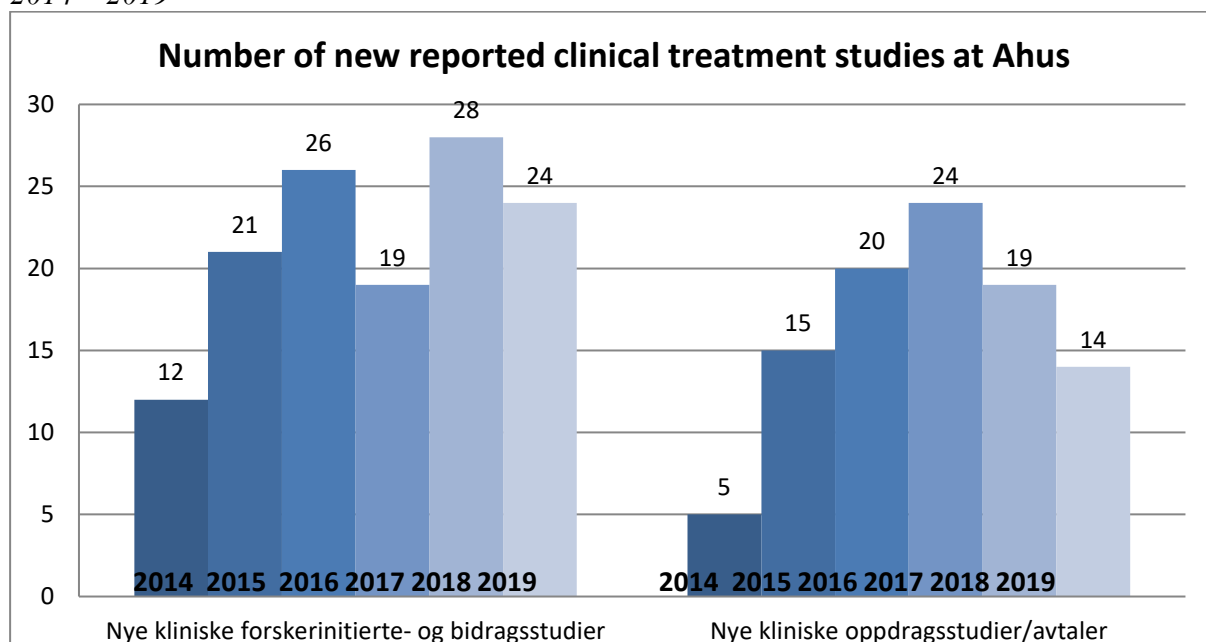
Kilde: Akershus universitetssykehus, partner i NorCRIN

### Status of clinical treatment studies at Ahus

Since 2014, Ahus has had a steady increase in the number of new clinical treatment studies at the company (see figure 6). In 2019, one of the management goals for Ahus was to increase the number of clinical treatment studies by 5% compared to 2017. The result for 2019, however, showed a decrease in the number of new clinical treatment studies compared to previous years. The reasons for this decline are probably made up of several factors, and were also observed nationally (cf. Health

industry value 2020). At Ahus, a number of measures were therefore implemented during 2019 to stimulate more clinical treatment studies at the hospital, including the establishment of a clinical research outpatient clinic and mapping of bottlenecks and challenges as a starting point for further improvement and development of research support centrally.

Figure 6: Development in the number of registered clinical treatment studies/agreements from 2014 – 2019

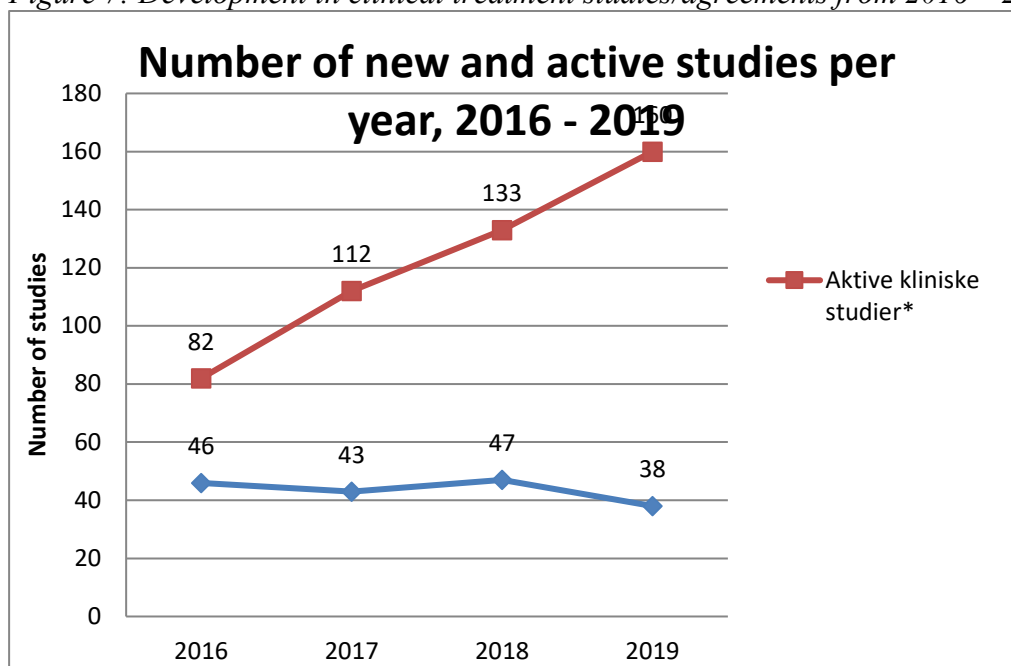


*Commission studies: Clinical treatment studies initiated by industry*

*Researcher-initiated and contribution studies: Clinical treatment studies initiated by researchers at the hospital, including studies that have contributions from industry either in the form of financial support and/or in the form of medicines/equipment.*

Despite a decrease in the number of new clinical treatment studies, the results in recent years show an increase in the number of active clinical treatment studies at Ahus (see figure 7). Clinical treatment studies are often complex studies that tie up resources and infrastructure over several years.

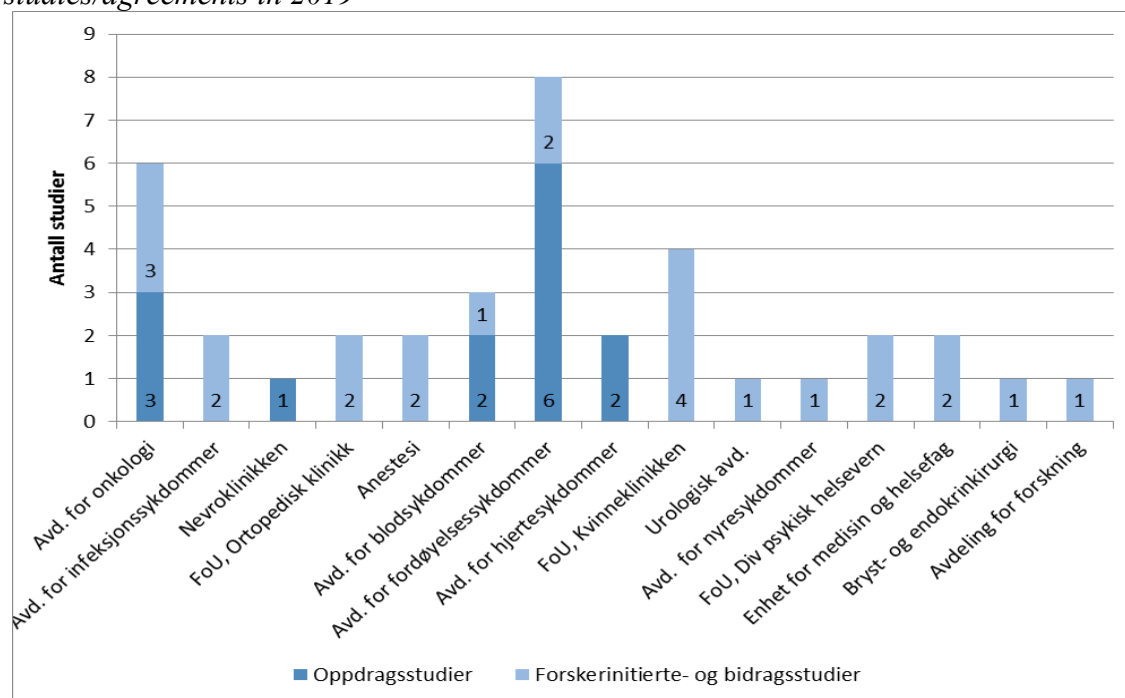
Figure 7: Development in clinical treatment studies/agreements from 2016 – 2019



\*Studies with an active project period in accordance with project start and end date reported to the Data Protection Commissioner at Ahus, and registered in the internal database for clinical treatment studies.

In 2019, 38 new clinical treatment studies/agreements were registered, distributed between several departments at the hospital, see figure 8. A broad offer within various therapy areas is important to be able to offer experimental treatment to as many of our patients as possible.

Figure 8: Department-wise \* figures for the number of new registered\*\* clinical treatment studies/agreements in 2019

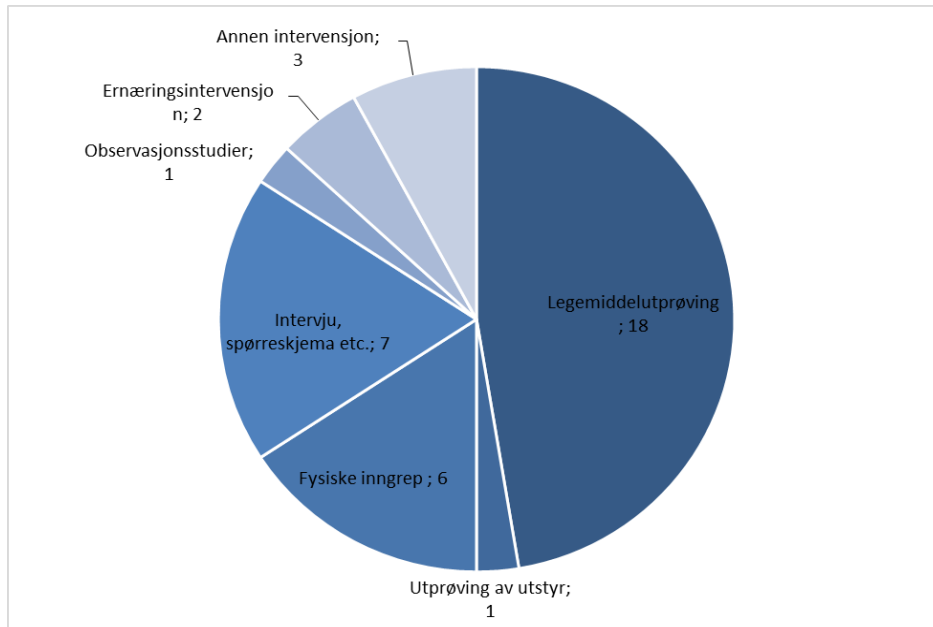


\*Departments with registered activity

\*\* Registered with the Privacy Commissioner at Ahus or registered with Inven2

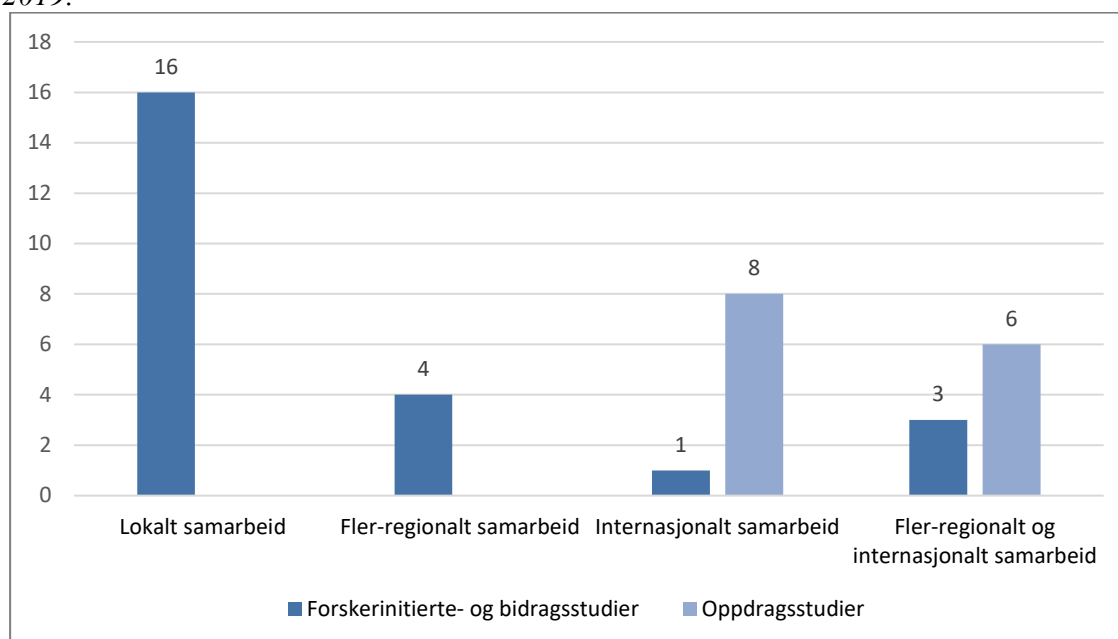
The clinical treatment studies reported in 2019 are divided into several different types of trials. The majority of the studies are drug trials. Other types of trials include testing of equipment, physical interventions, and questionnaires, observational studies, nutritional intervention and other types of intervention, see Figure 9.

Figure 9: Clinical treatment studies by type of trial



Within the category commissioned studies, the main emphasis is on multi-regional and international collaborations, so-called international multicentre studies, see Figure 10. In researcher-initiated and contributory studies, the collaboration is mainly distributed between local, multiregional and/or international cooperation, see Figure 10.

Figure 10: Local, multi-regional and international collaboration for researcher-initiated, contributory and commissioned studies for newly registered clinical treatment trials/agreements in 2019.



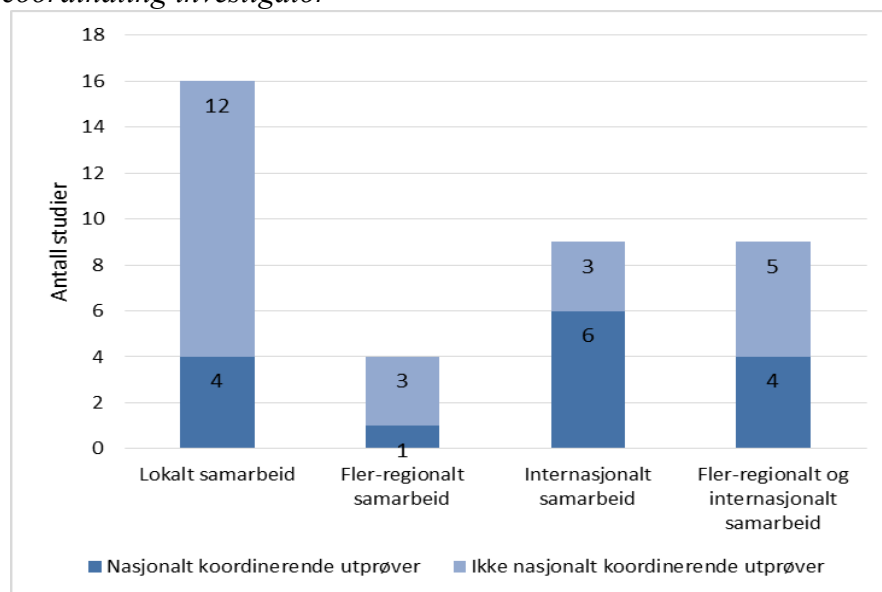
Local: Cooperation with institutions in the South-Eastern Norway Regional Health Authority

Multi-regional: Cooperation with institutions in other health regions

International: Cooperation with institutions internationally

In 15 of the 38 new enrolled clinical treatment studies in 2019, the project manager at Ahus national coordinating investigator is responsible for coordinating all participating centres in Norway, see figure 11.

Figure 11: Clinical treatment studies distributed by collaboration and responsibility as a national coordinating investigator





### **Infrastructure for clinical treatment studies**

Close and good cooperation internally with clinical departments and research environments, as well as departments that assist with specialized investigations during clinical treatment studies (lab, pathology, radiology) is crucial for the infrastructure. National collaboration with other university hospitals in Norway through participation in NorCRIN, especially AP4, has been important for further development of infrastructure and sharing of best practice across university hospitals. The same applies to participation in other national and regional networks (e.g. Network for Study Personnel in South-Eastern Norway Regional Health Authority). Dialogue, collaboration and feedback from other external partners have contributed to further development and strengthening of infrastructure and implementation of new solutions (e.g. the Shared Investigator Platform).

### **Clinical Research Outpatient Clinic**

The establishment of a Clinical Research Outpatient Clinic in the center of Glassgata has been an important ongoing work in 2019, with the appointment of a coordinator responsible for the establishment and day-to-day operation of the research outpatient clinic. The focus in 2019 has been the design and remodelling of premises, in addition to the purchase and receipt of elementary equipment for carrying out clinical studies. The premises contain three separate study rooms, two sampling chairs, a laboratory, as well as workstations with PCs and seating for meetings. Emphasis has been placed on open and bright rooms with good sound insulation, in addition to overall colouring of surfaces and fixtures that provide a calming and harmonious experience for study participants. The research communities from the various divisions/clinics at the hospital have participated in workshops to ensure that the provision that is established is adapted to the needs of the implementation of clinical studies, with regard to the design of premises, equipment and workflow.

### **Course**

Two courses were held in Good Clinical Practice (GCP) at Ahus in 2019; a full-day course in the spring and a half-day course/refresher course in the autumn. It was respectively 29 and 24 participants on these courses. The GCP course is held in collaboration with Regional research support at Oslo University Hospital/South-Eastern Norway Regional Health Authority, and the course is adapted to local conditions, routines and guidelines at Ahus. The course is approved in Transcelerate, a common platform used by the largest pharmaceutical companies in Norway.

In connection with the sending of invoices from Inven2, a course is held twice a year for progress reporting in clinical commissioned studies. In 2019, a course was held in the autumn and a course in the spring. A drop -in outpatient clinic was also arranged for help with progress reporting in connection with the courses.

### **Routines and guidelines**

In 2019, new routines were established for financial management in clinical assignment studies at Inven2.

The funds in Inven2 were liquidated and transferred to Ahus. Financial follow-up (partial settlement) in ongoing clinical assignment studies was also transferred from Inven2 to Ahus.

### **Trial reporting for clinical treatment studies**

In 2019, a sample report was carried out on the number of clinical treatment studies ongoing in 2017 and 2018. The purpose of the sample report was both to ensure the quality of data contained in CRISin and to register the number of patients included in clinical treatment studies. As the coordinating institution responsible for research, Ahus reported on a total of 194 studies registered as ongoing in 2017 and 2018.

## 7. Publishing researchers

The tables below show the number of researchers who published at least one scientific article with the address Akershus University Hospital in 2019. Table 9 shows publishing researchers broken down by gender and age, and table 10 shows the corresponding overview per division. Data are taken from CRISin.

*Table 9: Publishing researchers by sex and age*

Men		Women		Total	
Number	Dec. age	Number	Dec. age	Number	Dec. age
141	48.5	147	45.1	288	46.8

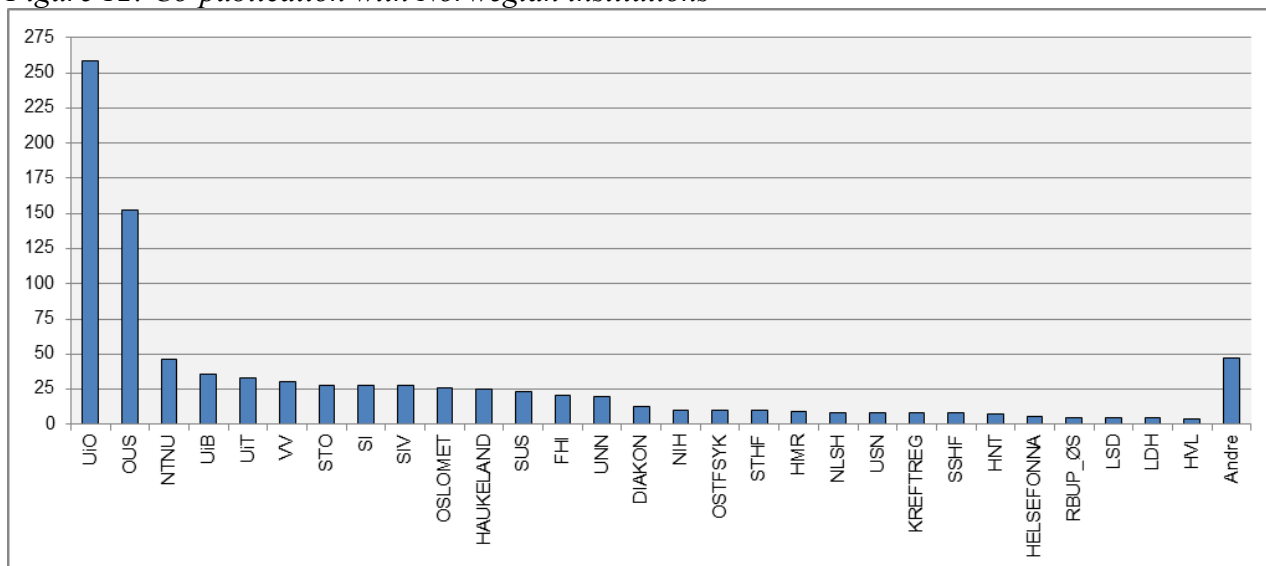
*Table 10: Publishing researchers by sex and age per division*

	Men		Women	
	Number	Avg. age	Number	Avg. age
Division of Paediatric and Adolescent Medicine	4	50,8	13	45,5
Division of Diagnostics and Technology	26	49,1	20	48,3
Division of Mental Health	7	58,7	20	46,8
Research and Innovation	15	46,3	14	45,3
Division of Surgery	25	51,0	13	49
Division of Gynaecology and Obstetrics	2	44	9	45,9
Division of Medicine	68	46,9	79	42,4
Orthopaedic Clinic	18	48		

## 8. National cooperation

Figure 12 shows an overview of Norwegian institutions that researchers at Akershus University Hospital have published together with. Co-publication with the University of Oslo and Oslo University Hospital is most common.

Figure 12: Co-publication with Norwegian institutions



Description of the abbreviations in the figure above:

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• UiO – University of Oslo</li> <li>• OUS – Oslo University Hospital HF</li> <li>• NTNU – Norwegian University of Science and Technology</li> <li>• UiB – University of Bergen</li> <li>• UiT – The Arctic University of Norway</li> <li>• VV – Vestre Viken HF</li> <li>• STO – St Olav Hospital HF</li> <li>• SI – Innlandet Hospital Trust</li> <li>• SIV – Vestfold Hospital Trust</li> <li>• OSLOMET – Oslo Metropolitan University</li> <li>• HAUKELAND – Haukeland University Hospital</li> <li>• SUS – Stavanger University Hospital</li> <li>• NIPH – Norwegian Institute of Public Health</li> <li>• UNN – University Hospital of North Norway</li> <li>• DEAKON - Deakonhjemmet Hospital</li> </ul> | <ul style="list-style-type: none"> <li>• NIH – Norwegian School of Sport Sciences</li> <li>• OSTFSYK – Østfold Hospital Trust</li> <li>• STHF – Telemark Hospital Trust</li> <li>• HMR – Health Møre and Romsdal</li> <li>• NLSH – Nordland Hospital Trust</li> <li>• USN – University of Southeast Norway</li> <li>• KREFTREG – Cancer Registry of Norway</li> <li>• SSHF - Sørlandet Hospital Trust</li> <li>• HNT – Nord- Trøndelag Regional Health Authority</li> <li>• HELSEFONNA – Helse Fonna HF</li> <li>• RBUP-ØS - RBUP East and South</li> <li>• LSD – Lovisenberg Deaconess Hospital</li> <li>• LDH – Lovisenberg Diaconal University College</li> <li>• HVL – Western Norway University of Applied Sciences</li> </ul> |
|---|---|

## 9. International cooperation

In 2019, 161 articles, or 50 per cent of the published articles, were co-publication with international partners. As figure 13 shows, the number of articles that include international cooperation has been stable in recent years. Figure 14 shows countries with which we have international co-publications. Sweden, the UK and the USA are the countries with which we have the most co-publications.

Figure 13: Number of publications from Ahus with international cooperation

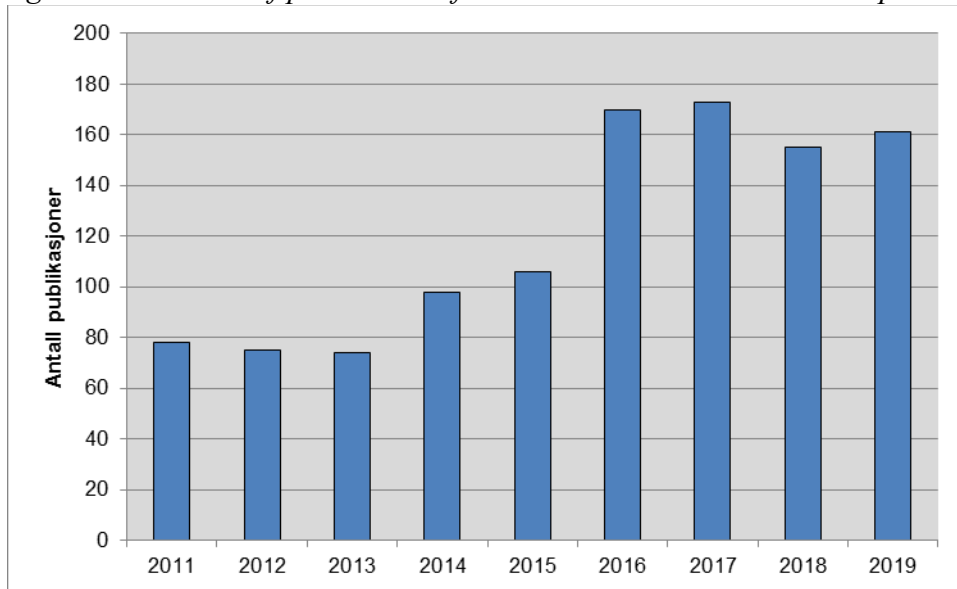
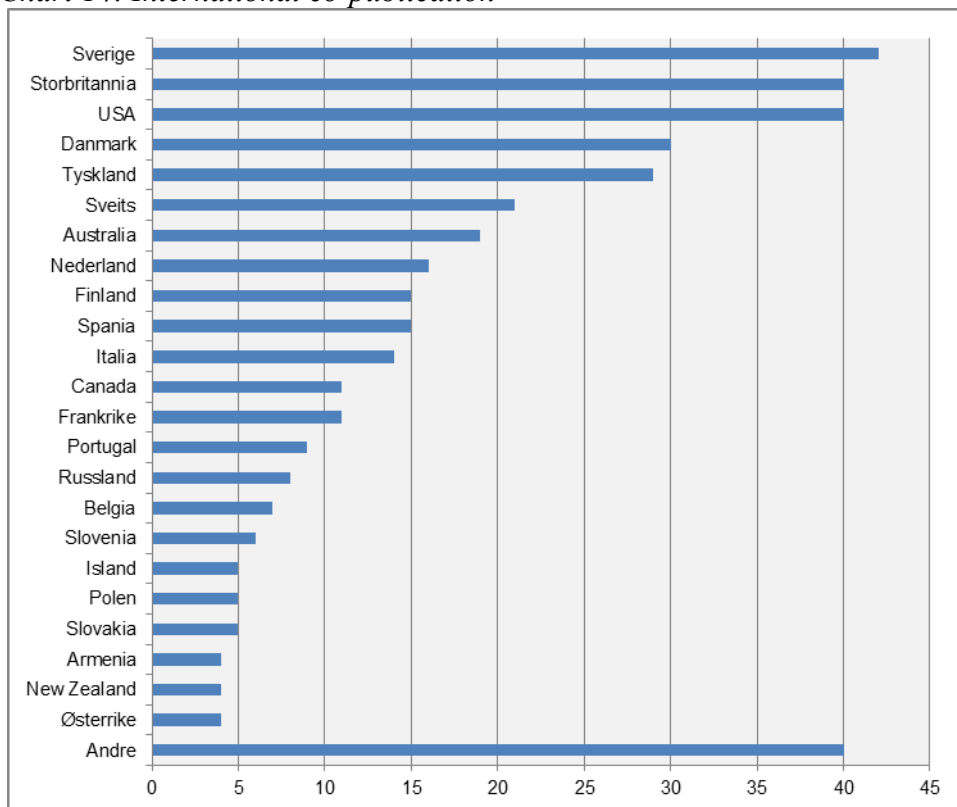


Chart 14: International co-publication



## 10. Grant of external research funding

In 2019, Akershus University Hospital was awarded a total of NOK 64,068,369 in external research funding; among others, from the South-Eastern Norway Regional Health Authority, the Research Council of Norway and The Norwegian Cancer Society. Figure 15 shows external funding broken down by funding sources from 2011 to 2019. Tables 11 and 12 show allocation per project.

Figure 15: External funding by funding source 2011 - 2019

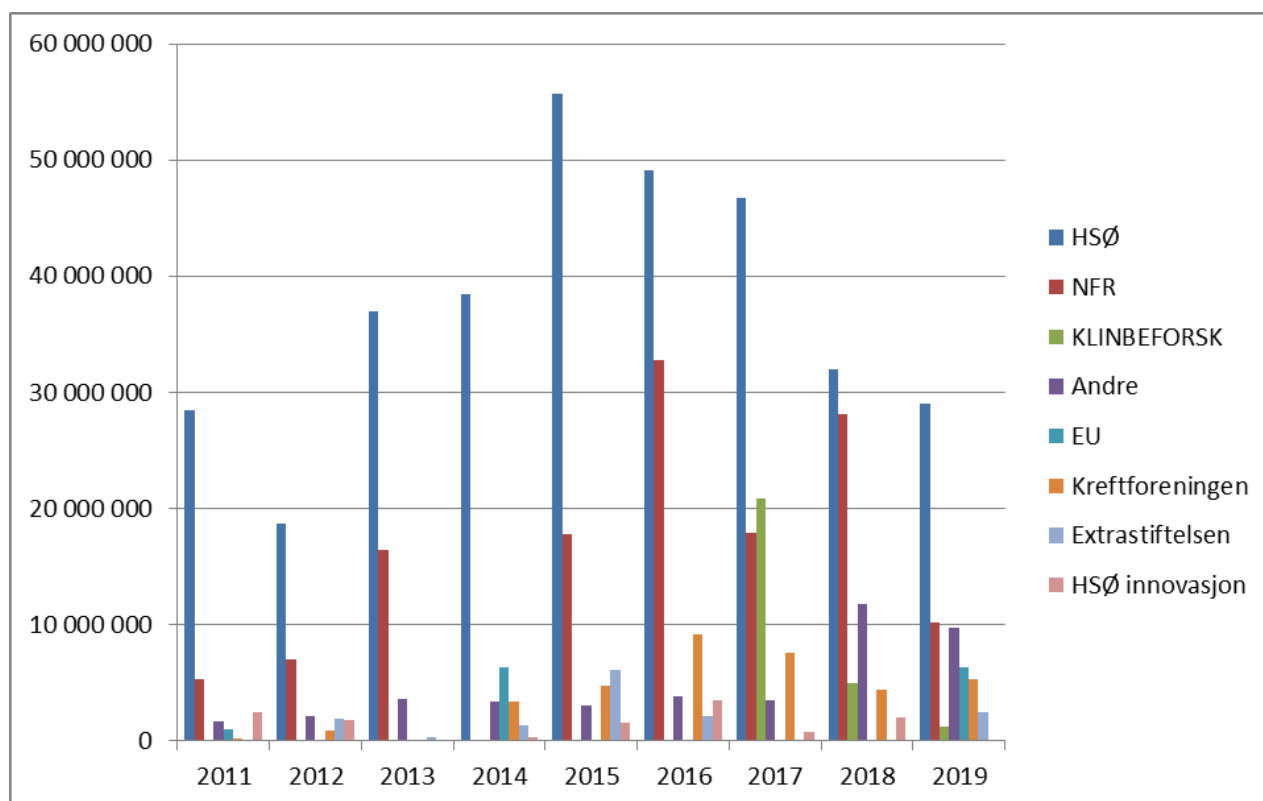


Table 11: Projects granted external research funding to PhD candidates, postdoctoral fellowships and larger operating grants.

Project title	Manager	Division/Clinic	Funded by:	Awards 2019
Improving the diagnostic accuracy, reproducibility and clinical utility of magnetic resonance tomography (MR) and X-ray for the evaluation of patients with spinal stenosis	Hasan Banitalebi	Division of Diagnostics and Technology	Sophies Minde Orthopedics AS	350,000
Long acting naltrexone for opioid addiction: the importance of mental, physical and societal factors for sustained abstinence and recovery	Lars Tanum	Division of Mental Health	South-Eastern Norway Regional Health Authority	3,285,000
Small children - big emotions	Marianne Villabø	Division of Mental Health	Extrastiftelsen, The Mental Health Council	2,397,000
BigMed - Language technology	Lars Åge Møgster	Unit for economics and finance	The Research Council of Norway via Oslo University Hospital	1,350,000

Project title	Manager	Division/Clinic	Funded by:	Awards 2019
Chiropractic spinal manipulative therapy for acute neck pain: a 5-armed randomized placebo-controlled trial	Michael Russell / Aleksander Chaibi	Research and Innovation	ELIB (A life in motion)	3,680,689
Development and implementation of modern communication methodology in calls to the emergency medical emergency number 113	Pål Gulbrandsen	Research and Innovation	The Research Council of Norway (FOR REGION FUNDS) via Somsagt AS	368,000
Surgery with extended (D3) mesenterectomy for small bowel tumors	Dejan Ignjatovic	Division of Surgery	South-Eastern Norway Regional Health Authority	3,288,000
National urine-based surveillance study of bladder cancer patients	Stig Müller	Division of Surgery	KLINBEFORSK via Oslo University Hospital	1 204 000
Nordsleep ASAP Cohorts (Novel wearable sensors and machine learning solutions for personalized diagnostics)	Harald Hrubos-Strøm	Division of Surgery	The Research Council of Norway	7 269 000
Adverse Inflammation Versus Antitumor Immunity in Advanced Colorectal Cancer – Mastered by the Mitochondrial Metabolism?	Anne Hansen Ree	Division of Medicine	South-Eastern Norway Regional Health Authority	9 000 000
SMUG1-dependent regulation of gene expression by processing modified nucleic acids	Hilde Nilsen	Division of Medicine	South-Eastern Norway Regional Health Authority	8 685 000
Premature aging and progressive fibrosis in renal transplantation. A biopsy study of cellular senescence in the renal allograft	Ivar Anders Eide	Division of Medicine	South-Eastern Norway Regional Health Authority	1 500 000
The Prevention of Cardiac Dysfunction During Adjuvant Breast Cancer Therapy (PRADA) trial: Intermediate-term effects of cardioprotective therapy	Torbjørn Omland	Division of Medicine	South-Eastern Norway Regional Health Authority	3 285 000
The Prevention of Cardiac Dysfunction During Adjuvant Breast Cancer Therapy (PRADA) II	Torbjørn Omland	Division of Medicine	The Norwegian Cancer Society	5 300 000
Imatinib for Multiple Sclerosis (MS) Relapses - a Phase II, Randomised Study	Trygve Holmøy	Division of Medicine	Karolinska Institutet	476 850
Multilevel approach to understand left ventricular remodelling	Arkady Rutkovskiy	Division of Medicine	Norwegian Health Association	2 550 000
Norwegian nucleoside analogue stip study (Nuc-STOP)	Olav Dalgard	Division of Medicine	South-Eastern Norway Regional Health Authority via Oslo University Hospital	300,000
p53 breast study - EudraCT	Jürgen Geisler	Division of Medicine	The Research Council of Norway via Helse Bergen	669 380
Application for an "unrestricted grant" for the fibrosis register (BINO)	Vidar Søyseth	Division of Medicine	Boehringer Ingelheim Norway KS	400 000
VERDAD	Tormod Fladby	Division of Medicine	EU project via Pre Duagbistucs AS	6 323 000
Project 001 (Fang-Aladdin): to get ethical approval and data/material access to the major longitudinal cohorts as well as collaboration start-up	Evandro Fei Fang	Division of Medicine	Aladdin	600 000
Function after low-energy pelvic fracture	Aron Adelved	Orthopaedic clinic	Sophies Minde Orthopedics AS	333 450

Table 1 2: Projects granted smaller grants from external funding sources

Project title	Manager	Division/Clinic	Funded by:	Awards 2019
Longitudinal study of music therapy's effectiveness for premature infants and their caregivers: International randomized trial (LongSTEP)	Anne Lee Solevåg	Division of Paediatric and Adolescent Medicine	The Research Council of Norway via Uni Research, GAMUT	120,000
Research grant	Ashraf Haseem	Division of Diagnostics and Technology	AstraZeneca	20,000
ACTH I g auto Abs - cause of rheumatic pain	Henning Værøy	Division for mental health care	Grethe Harbitz's legacy	200,000
Note at the abyss. A mother's story.	Ellen Kristvik	Research and Innovation	Free word foundation	100,000
Aquaporins - new molecular markers in inflammatory bowel disease; expression, distribution and relationship to gut microbiota	Petr Ricanek	Division of Medicine	Norwegian Society for Digestive Surgery	50 000
NFL's Inspiration Award 2018 (Foreign Scholarship)	Øyvind Johannessen	Division of Medicine	Norwegian Respiratory Society	100 000
The Norwegian Heart Association's heart research award 2019	Torbjørn Omland	Division of Medicine	Norwegian Health Association	200,000
Support from the Norwegian Epilepsy Association's Research Fund: Seizures and epilepsy after stroke	Espen Saxhaug Kristoffersen	Division of Medicine	Norwegian Epilepsy Association	50,000
1st Symposium of the Nordic Cardio-Oncology Society	Geeta Gulati	Division of Medicine	The Research Council of Norway	160 000
The effect of non-antibiotic therapy on the gut resistome in inflammatory bowel disease.	Aina E. Foossum Moen	Division of Medicine	TTA via Oslo University Hospital	55 000
Implementation of Stress and Adversity Inventory in multidisciplinary assessment of patients with obesity	Tone Gretland Valderhaug	Division of Medicine	The Research Council of Norway	200 000
Research grant	Gunnar Einvik	Division of Medicine	Norwegian Respiratory Society (AstraZeneca)	100 000
PE-Rehab - Cardio -pulmonary rehabilitation to improve exercise capacity and quality of life after pulmonary embolism; a randomized controlled trial	Anders Dahm	Division of Medicine	Østfold Hospital Trust	39,000
STOP IT	Jørgen Jahnsen	Division of Medicine	NordForsk via Copenhagen University Hospital Herlev	60,000

## 11. Internal research funds

Once a year, internal strategic research funds are advertised for which employees can apply. The applications are assessed for quality by external peers.

In 2019, a total of NOK 50.1 million was applied for across 80 applications. The total sum that was allocated was 4,505,000 spread over 13 projects (see table 13). Applicants are encouraged to use feedback from their colleagues to improve their applications when applying for research funding from the South- Eastern Norway Regional Health Authority and other external sources.

In 2017, Ahus introduced a new category, "Strategic investment". In this category, up to NOK 1 million is awarded annually for up to three years to a project of strategic importance, in accordance with the hospital's research strategy. Emphasis was placed on cooperation between different departments and divisions.

Table 13: Projects awarded internal research funding 2019

object title	Manager	Division/Clinic	Allocated amount
Three dimensional (3D) ultrasound and magnetic resonance imaging (MRI) – the future tools to diagnose pregnancies with high risk of adverse outcome?	Anne Eskild	Division of Diagnostics and Technology	500 000
Magnetic Resonance Enterography of a population-based patient cohort with Crohns disease: a longitudinal follow-up of bowel disease and damage with evaluation of prognostic risk factors	Anne Negård	Division of Diagnostics and Technology	217 500
		<b>Division of Diagnostics and Technology</b>	<b>717 500</b>
A cluster-randomized study on implementation of guidelines and evidence-based treatments of psychosis. (Better psychosis treatment)	Kristin Sverdvik Heiervang	Division of Mental Health	500 000
Medication free treatment: Characteristics, effectiveness and justification	Kristin Sverdvik Heiervang	Division of Mental Health	300 000
		<b>Division of Mental Health</b>	<b>800 000</b>
Mechanisms of defective mitophagy machinery in Alzheimer's disease	Evandro F. Fang	Division of Medicine	1 000 000
Center for Cardiac Precision Medicine: Targeted proteomics for biomarker discovery in heart failure	Helge Røsjø	Division of Medicine	300 000
Mechanical dispersion as a marker of myocardial dysfunction in patients with stable coronary artery disease and the general population	Helge Røsjø	Division of Medicine	300 000
Microbiota, composition and activity, in treatment naïve pediatric patients with inflammatory bowel disease.	Jørgen Jahnsen	Division of Medicine	217,500
Establishment of a neuronal stem cell culture platform at the Akershus University Hospital	Evandro F. Fang	Division of Medicine	217,500
Generation of idiots in multiple sclerosis	Trygve Holmøy	Division of Medicine	217,500
Ex vivo 5-aminolevulinic acid-mediated photodynamic effects on cellular and non-cellular blood components in patients with Crohn's disease	Jørgen Jahnsen	Division of Medicine	217,500
		<b>Division of Medicine</b>	<b>2 470 000</b>
Predictors of infection after anterior cruciate ligament surgical reconstruction	Asbjørn Årøen	Orthopaedic Clinic	300,000
Plate fixation versus intramedullary nailing of 3 and 4 part proximal humerus fractures. A prospective randomized controlled trial	Per Henrik Randsborg	Orthopaedic Clinic	217,500
		<b>Orthopaedic Clinic</b>	<b>517,500</b>



## 12. Outstanding research award

Each year, awards for outstanding research are awarded to three articles with the first author from Ahus. An important purpose of this is to highlight the qualitatively good research that is produced and published by the hospital's employees. The award is set by a joint research committee based on publication points / impact factor of published works in the past year. The prize winners receive flowers, a diploma and NOK 10,000 which can be used for conference participation or the like. Award winners in 2019 it was Sandra Larsen (Division of Gynaecology and Obstetrics), Peder Langeland Myhre (Division of Medicine), and Zill-E-Huma Latif (Division of Mental Health).



From left: Sandra Larsen, Peder Langeland Myhre and Zill-E- Huma Latif

### Announcement of the winners

**Sandra Larsen**, Camilla Haavaldsen, Elisabeth Krefting Bjelland, Johanne Dypvik, Anne Marie Jukic, Anne Eskild.

*Placental weight and birthweight: The relationships with number of daily cigarettes and smoking cessation in pregnancy. A population study. International Journal of Epidemiology 2018; Volume 47 (4) pp1141-1150*

Maternal smoking reduces the child's birth weight, and low birth weight increases the risk of early death. It has previously been assumed that the birth weight of the child decreases with an increasing number of cigarettes that the mother smokes daily. There has been doubt as to whether the dose-response relationship between birth weight and the number of cigarettes smoked per day is linear, and what effect smoking cessation in pregnancy has on birth weight. The placenta is also crucial for fetal growth. The extent to which maternal smoking affects placental weight has been unknown.

A research group from Division of Gynaecology and Obstetrics at Ahus used the Medical Birth Register to study the relationship between the number of cigarettes the mother smokes daily in the first trimester, placental weight and birth weight.

In women who smoked throughout pregnancy, placental weight and birth weight decreased with increasing number of cigarettes per day, but with more than 11 cigarettes per day there was no further reduction in weight. In women who stopped smoking after the first trimester, placental weight was higher than in non-smokers, and increased linearly with the number of cigarettes per day. The birth weight of the child in these women was almost similar to that of non-smokers.

The study included almost 700,000 pregnant women in Norway in the period 1999-2014. It shows that maternal smoking affects birth weight to a greater extent than placental weight. It also suggests that smoking reduction and smoking cessation during pregnancy may be beneficial for placental growth and fetal growth.

**Peder Langeland Myhre**, Sebastian Sarvari, Heikki Ukkonen, Frank Rademakers, Jan E. Engvall, Tor-Arne Hagve, Eike Nagel, Rosa Sicari, José Luis Zamorano, Mark Monaghan, Jan R. M. D'Hooge, Thor Edvardsen, Helge Røsjø

*Cardiac troponin T concentrations, reversible myocardial ischemia, and indices of left ventricular remodelling in patients with suspected stable angina pectoris: A DOPPLER-CIP substudy. Clinical Chemistry 2018; Volum 64 (9) s.1371-1379.*

Troponin is an important cardiac protein that is released into the bloodstream when the heart is damaged. Measurement of troponin in the blood is traditionally used for the diagnosis of acute myocardial infarction. In the last decade, however, a clear connection has been found between elevated levels of troponin and an increased risk of heart disease in stable patients and in the general population. High troponin values have particularly been associated with a risk of heart failure and cardiac death. Troponin is therefore increasingly also used as a risk marker for heart disease. However, what drives the increased release of troponin in these patients with increased risk has been unclear.

In the large multicentre study DOPPLER-CIP, 676 patients from 7 European countries with suspected coronary heart disease were included. The patients underwent a series of examinations of the heart, including stress testing, imaging and blood sampling. In our study, we looked at the relationship between troponin levels in the blood and the function and structure of the heart under stress and at rest. We found that high troponin values were particularly associated with two phenomena in the heart: 1) Large and thickened heart muscle and 2) limited blood supply to the heart muscle both at rest and under stress. Patients with both enlarged hearts and low blood supply had the highest troponin levels, while patients with both normal-sized hearts and normal blood supply had the lowest levels.

The results support previous studies which show that elevated troponin is an indication of disease in the heart which should be investigated further. In addition, we show in this study that one must both look for changes in the structure of the heart (risk of heart failure) and changes in blood supply (risk of heart attack) in a patient with elevated troponin .

**Zill-E- Huma Latif** , Jūratė Šaltytė Benth, Kristin Klemmetsby Solli, Arild Opheim, Nikolaj Kunøe, Peter Krajci, Kamini Sharma Haase, Lars Håkon Reiestad Tanum ,

*Anxiety, Depression, and Insomnia Among Adults With Opioid Dependence Treated With Extended-Release Naltrexone vs Buprenorphine-Naloxone A Randomized Clinical Trial and Follow-up Study. JAMA psychiatry 2018.*

A research group originating from the Center for Drug and Addiction Research at the University of Oslo and Ahus has conducted a pioneering study in which they have compared the effect of long-

acting naltrexone injections with the effect of suboxone among opioid-dependent persons who have recently undergone detoxification.

The study was carried out at Oslo University Hospital, Haukeland University Hospital, Akershus University Hospital, Vestfold Hospital and Stavanger University Hospital. Senior researcher Lars Tanum at Ahus was the project manager.

This is the first study done on long-acting naltrexone injections in Western Europe, and the first study in the world to compare long-acting naltrexone with suboxone. It is also the first study in the world to compare long-acting naltrexone with some forms of LAR medicine.

The study consisted of two parts:

- In the first part of the study (12 weeks), we compared long-acting naltrexone with suboxone treatment. Questions have been raised about whether naltrexone treatment will increase complaints related to anxiety, depression and sleep problems. We found that treatment with long-acting naltrexone produced a significant improvement in sleep problems, while both drugs produced a reduction in anxiety and depression symptoms.
- In the follow-up study (36 weeks), it was seen that the participants who either continued with long-acting naltrexone or who were converted to long-acting naltrexone showed a continued improvement in their symptoms related to anxiety, depression and insomnia.

The main message from the study is that comorbid symptoms such as anxiety, depression and insomnia among opioid-dependent patients are not worsened by long-acting naltrexone, and therefore should not be an obstacle to a switch from the current LAR treatment (opioid agonist) to long-acting naltrexone.

### 13. Theses of the year

In 2019, 13 employees at Akershus University Hospital defended their PhD. Table 6 shows the distribution of doctoral degrees per division. Below is an overview of the doctoral students' work:



Johanne Dypvik

Cand. with. Johanne Dypvik at the Division of Gynaecology and Obstetrics defended on 30 January over the thesis: "**Diabetes, preeclampsia and infant death – The associations with placental weight.**"

(The trial lecture was held on the stated subject: "*Placenta accreta, increta, percreta. Diagnostics and treatment.*")

Supervisor: Professor Anne Eskild



MD Elin Wahl Blakstad at the Division of Paediatric and Adolescent Medicine defended 1 February over the thesis: "**Growth, neurodevelopment, metabolic markers and intestinal microbiota in very low birth weight infants on enhanced nutrient supply.**"

(The trial lecture was held on the stated subject: "*Nutrition in premature babies - historical practices, research findings and clinical implementations.*")

Supervisor: Professor Britt Nakstad



Maria Pedersen

Cand. with. Maria Pedersen at the Division of Pediatric and Adolescent Medicine defended 28 February the thesis: "**Chronic Fatigue and Chronic Fatigue Syndrome Following acute Epstein-Barr Virus Infection in Adolescents.**"

(The trial lecture was held on the stated subject: "*Chronic Fatigue Syndrome and Chronic Pain.*")

Supervisor: Professor Vegard Bruun Wartholm Wyller



MD Hendrik Frølich Rod Birdsong at the Orthopaedic Clinic defended 11 April the thesis: "**Functional Outcome after Conservative and Operative Treatment of Midshaft Clavicle Fractures.**"

(The trial lecture was held on the stated topic: "*Overtreatment of shoulder disorders in Norway? How to ensure an equal and correct level of service?*")

Supervisor: Associate Professor Stein-Erik Utvåg





Svend Ulstein

Cand. with. Swede Ulstein at the Orthopaedic Clinic argued on 14 June over the thesis: "**Prognosis and treatment of focal cartilage lesions of the knee joint. Medium to long-term results.**"

(The trial lecture was held on the stated subject: "*The use of PROMs as outcome measure after knee surgery: Strengths and limitations.*")

Supervisor: Senior researcher Jan Harald Røtterud



Cand. with. Jacob Andreas Winther at the Division of Medicine argued on 17 June over the thesis: "**Prognostic and diagnostic biomarkers linked to water and sodium regulation in acute dyspnea.**"

(The trial lecture was held on the stated subject: "*SGLT2 inhibitors: mechanisms of action and link between cardiovascular disease and diabetes*")

Supervisor: Professor Torbjørn Omland



Zill-E-Huma Latif

Cand. with. Zill-E-Huma Latif by Division of Psychics healthcare defended the thesis on 27 June: "**Long-Term Effectiveness, Psychiatric Distress and Chronic Pain in Opioid Dependent Individuals Receiving Treatment with Extended-Release Naltrexone.**"

(The trial lecture was held on the stated topic: "*Long-term Outcomes of Pharmacotherapies for Opioids Use disorder.*")

Supervisor: Professor Lars Tanum



Francesco Di Ruscio

M.Sc. Francesco Di Ruscio at the Division of Diagnostics and Technology defended the thesis on 25 September: "**Modelling the transmission of methicillin-resistant Staphylococcus aureus in Norway.**"

(The trial lecture was held on the stated subject: "*Changing epidemiology of methicillin -resistant Staphylococcus aureus - success stories in a European perspective.*")

Supervisor: Associate Professor Truls Michael Leegaard



Christine Olbjørn

MD Christine Olbjørn at the Division of Paediatric and Adolescent Medicine argued on 11 October over the thesis: "**Prognosis of IBD in children and adolescents: Assessment of outcome, based on clinical, serological and microbial markers at diagnosis.**"

(The trial lecture was held on the stated topic: "*Gluten: different faces of the problem*")

Supervisor: Researcher Do it Perminov



Tonje Bjørntrø

M.Sc. Tony Bjørntrø at the Division of Medicine argued on 17 October over the thesis: "**Extracellular Vesicles in Colorectal Cancer - Mediators of tumor aggressiveness.**"

(The trial lecture was held on the stated subject: «*Therapeutic potential of extracellular vesicles.*»)

Supervisor: Professor Anne Hansen Ree



Cand. Med. Filip Celestyn Dolatowski at the Orthopaedic Clinic argued on 31 October over the thesis: "**Outcomes and complications of nondisplaced femoral neck fracture treated by screw fixation or hip hemiarthroplasty in elderly patients.**"

(The trial lecture was held on the stated subject: «*Influence of spinal disease and surgery on the result of total hip replacement.*»)

Supervisor: Associate Professor Stein-Erik Utvåg



Cand. with. Khalaf More at the Division of Paediatric and Adolescent Medicine defended the thesis on 5 November: "**Phototherapy for neonatal jaundice Studies of photoisomer formation and clinical practice.**"

(The trial lecture was held on the stated subject: "*Prolonged jaundice revisited: recent advances in the management of neonatal cholestasis.*")

Supervisor: Professor Britt Nakstad



*Kine Mari Bakke*

Kine Mari Bakke at the Division of Medicine defended the thesis on 13 December: "Assessing **cancer aggressiveness by functional magnetic resonance imaging.** "

(The trial lecture was held on the stated subject: «*The measurement of tumor hypoxia in human patients using MRI.*»)

Supervisor: Senior researcher Kathrine Røe Redalen

## 14. Research support at Akershus University Hospital

### Research administration

The department for research support handles personnel administration and financial follow-up in the research projects.

The department takes care of, among other things, also reporting and general operations for all research activity at the hospital. The department is administratively responsible for meetings in joint research committees, collaboration meetings for research, theme meetings for research, and the announcement and allocation of internal strategic research funds.

### Research and privacy advisors

#### *Guidance*

The advisers at the Department for Research Support provide guidance for research and quality projects. This includes guidance and teaching in routines and regulations, advice on privacy, research ethics, handling of deviations, sampling/processing and storage of biological material. An important task is to represent Ahus in regional and national forums, as well as participation in NorCRIN and Biobank Norge.

#### *Internal control*

From 1 November 2018, we adopted an electronic system (eSkjema) to report research and quality projects. This system has been developed at Ahus and will help to strengthen internal control at the company, and provides an overview of all processing of personal data in research and quality projects. All projects receive a statement on behalf of the Data Protection Commissioner after registration in the eForm.

Deviations and unwanted incidents in research and quality projects were, from December 2018, reported as a separate category in the internal deviation system at Ahus (EQS). This has increased awareness of formal requirements for the project process, and helps to avert future unwanted incidents.

### Medical Library

The medical library organizes and facilitates access to quality-assured sources of knowledge (databases, books and journals) for the hospital's employees. The knowledge sources are offered in electronic or printed form, and employees have direct access to the electronic resources in Ahus' network, as well as the possibility of access from home via a login service. The library is open Monday-Friday at 9-15, but employees have access to the premises around the clock with an ID card and code. Employees must register to borrow and order articles and books. The library offers courses and guidance in literature searches and EndNote (reference management), and carries out searches in connection with research projects, article and book writing, procedures, academic updates, etc.

### Research Clinics

#### *Privacy policy clinic*

Every Tuesday from 1.30 to 3.00 p.m., a privacy and research guidance clinic is organized at the hospital. The outpatient clinic is located on the 5th floor in Nye Nord and is open to all employees at Akershus University Hospital and UiO Campus Ahus. The polyclinic works according to the drop-in principle, which means that those who apply receive help when they arrive. The polyclinic offers advice on privacy issues, research ethics, handling of deviations and biobanking.



### *Statistical Research Clinic*

The statistical research outpatient clinic is open to all employees at Ahus and UiO, Campus Ahus. The outpatient clinic operates according to the drop -in principle every Tuesday from 1.30 to 3.00 p.m., but it is also possible to make contact at other times. Statistical research outpatient clinic offers advice on data processing and analysis, and the use of statistical methods. We provide the following statistical support:

- discussion of variables, including help defining them and what they can be used for
- choice of statistical methods, including help to understand these, and practical advice on how to proceed

The statisticians also give advice on where employees can attend courses to acquire the necessary knowledge.

After further assessment, the person providing statistical support can contribute more than what is described above. In such cases, conditions for further collaboration are discussed, including decisions on co-authorship.

### *Health Sciences Research Clinic*

The health-related research outpatient clinic is a low-threshold offer of advice on health-related research issues for employees at Ahus. The health research polyclinic can offer:

- help to identify and clarify possible issues in an early idea phase
- help to clarify the applicability of various research methods, with regard to current issues and projects
- advice on methods for preparing a research project
- advice on applying for research funding

### *Health Economics Research Clinic*

The health economics research outpatient clinic is a low-threshold offer for employees at Ahus and UiO, Campus Ahus who are interested in health economics issues in a clinical setting. The health economics research polyclinic can offer:

- discussion on how health economic issues can fit into clinical projects
- cost-effect analyses and cost-benefit analyses
- selection of effect measures: health-related quality of life (HRQoL) measured by e.g. EQ-5D, 15D or SF-6D
- advice on relevant cost components
- advice on the collection of data
- advice on the use of methods and analyses
- other health economic issues (financing, cost analyses, choice models, etc.)
- advice on methods for preparing a research project
- advice on application writing

### *Data Collection Group*

The data capture group is a service organization for researchers at Ahus and Campus Ahus, UiO. The group helps with data collection, data extraction and secure storage of research data. If you want help, the project must have [the necessary applications and approvals in order](#).

More information about research polyclinics at Ahus - see <https://www.ahus.no/fag-og-forskning/forskning-og-innovasjon/forskningsstotte>

## 15. Open theme evening for the public

On Tuesday 7 May, Akershus University Hospital organized an "Open themed evening about the hospital's commitment to the elderly patient". The aim is for residents and staff to get to know the professional and research activities at Ahus, and that it is a hospital with a high level of professional ambition and skilled professionals. The lectures are short, with plenty of opportunity to ask questions afterwards. The speakers write short summaries of their lectures, which we hand out together with a contact address - so that anyone who wishes can get in touch for more information.



### Åpen temakveld 7. mai - slik satser vi på den eldre pasient

**Tid:** Tirsdag 7. mai kl. 18-20

**Sted:** Auditoriet, hovedbygget på Ahus Nordbyhagen. Auditoriet finner du rett innenfor hovedinngangen.

Med en økende andel eldre i befolkningen er det behov for å tilpasse sykehusstilbudet. Det vil bli stadig flere pasienter med aldersrelaterte sykdommer som demens, alderspsykiatri, hjerte- og karsykdom, nyresvikt og kreft.

Eldremedisin er derfor et av de fire satsingsområdene for Akershus universitetssykehus (Ahus) i vår utviklingsplan frem mot 2035.

Under åpen temakveld vil vi presentere noen av satsingene på den eldre pasient.

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#### Velkommen - vår satsing mot 2035

Jøm A. Limi - viseadministrerende direktør

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#### Kan vi bremse utviklingen av Alzheimer?

Sofie Lautrup, postdoktorstipendiat, EPIGEN, Medisinsk divisjon, Ahus

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#### Demensvennlig sykehus

Nina Weldingh, doktorgradsstipendiat ved Enhet for medisin og helsefag, Ahus

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#### Å være pårørende til demenssyke

Kristin Häikö, doktorgradsstipendiat ved Avdeling for helsetjenesteforskning (HØKH), Ahus.

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#### PAUSE

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#### Åndelig og eksistensiell omsorg ved livets slutt

Beret Bråten, postdoktor, Avdeling for helsetjenesteforskning (HØKH), Ahus.

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#### Mitt liv, mitt ansvar - medisinsk avstandsoppfølging

Anne Gunvor Nystrøm, prosjektleder, Ullensaker kommune

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#### Eldre og legemidler - gjør individuelle vurderinger

Marte Mellingsæter, leder for geriatrisk avdeling, Ahus

UiO : Universitetet i Oslo

On Tuesday 15 October, the hospital organized "Open theme evening: How should Akershus University Hospital (Ahus) further develop and strengthen assessment, treatment and research for cancer patients".

## Hvordan skal Akershusuniversitetssykehus (Ahus) videreutvikle og styrke utredning, behandling og forskning for kreftpasienter

**Temakveld, tirsdag 15.10.2019 kl 18-20**

Kreftdiagnostikk og behandling er et satsingsområde på Ahus. På åpen temakveld kan du høre mer om hvordan Ahus skal videreutvikle og styrke utredning, behandling og forskning innen kreftområdet.

Det er nettmøte om brystkreft med Joanna M. Gundersen på rb.no 14. oktober kl 1330- 1430. Da kan du anonymt stille de spørsmålene du vil, men som du kvier deg for å stille.

I forkant av temakvelden, kl 17-18, vil Kreftforeningen ha stand utenfor auditoriumet hvor de vil snakke om sin virksomhet og svare på spørsmål.

Det blir også stand hvor man kan få vite litt mer om kliniske studier på Ahus og hvordan man har mulighet til å bli deltaker i kliniske studier.

### Program

**18:00 - Velkommen og Utviklingsplan 2035**

- Viseadministrerende direktør Jørn A. Limi

**18:05 - Nytt strålebygg og andre planer for utvikling av kreftbehandlingen på Ahus**

- Prosjektleder Ivar Thor Jonsson

Hvilke tilbud har sykehuset til kreftpasienter i dag? Hvordan ønsker sykehuset å utvikle tilbudet til kreftpasientene i årene som kommer? Hvordan tenker Ahus at fremtidens kreftsenter vil se ut?

**18:15 - Medisinsk behandling av kreftpasienter - et område i stor endring**

- Kjell Magne Russnes, overlege kreftavdelingen ved Ahus.

Hva er persontilpasset kreftbehandling? Hva er immunterapi? Hvordan påvirker disse nye behandlingsalternativene pasientforløpet til kreftpasientene? Hva foregår av forskning på disse områdene på Ahus?

**18:30 - Er det mulig å lære å leve med kreft? Om lærings- og mestringskurs for pasienter og pårørende**

- Unn-Cathrin Buvarp, Brit Tove Kristoffersen, Pia Jønsson Grundnes, alle sykepleiere ved kreftavdelingen på Ahus.

Hvilke lærings- og mestringskurs tilbys til pasienter og pårørende ved kronisk kreftsykdom? Hva er Pusterommet, og hvilket tilbud har det?

[Les mer om hvordan det er å leve med kreft her.](#)

**18:45 - Erfaringer fra robotkirurgi på Ahus**

- Stig MUiier, avdelingsleder urologisk avdeling på Ahus.

Hva er forskjellen på robotkirurgi og vanlig kirurgi? Hva er fordelene for pasientene? Hva er erfaringene fra robotkirurgi ved Ahus, og hvordan ønsker vi å utvikle tilbudet fremover?

[Les mer om robotkirurgi tilbudet på Ahus her](#)

**19:00 - Fordelene ved å forberede pasientene godt før kreftkirurgi**

- Hilde Stømner, avdelingsleder ved Senter for kliniske fellesfunksjoner.

Hva er prehabilitering (forberedelse), og hvilken nytte forventer vi at denne gir for pasientene? Hvilke resultater har vi sett, og hvordan forventer vi at innføring av prehabilitering vil påvirke pasientforløpene i årene som kommer?

**19:15 - Hva har vi lært av pakkeforløpene for kreft?**

- Øyvind Antonsen, assisterende fagdirektør på Ahus, Eirik Bjelland, medlem av brukertutvalget på Ahus, Ivar Thor Jonsson, prosjektdirektør på Ahus.

Hva er et pakkeforløp, og hva betyr det for pasientene? Hvordan gjennomføres pakkeforløpene, og hva er situasjonen ved Ahus? Hva er viktig for vellykket gjennomføring av pakkeforløpene? Hvordan tenker vi at tilbudet vil utvikle seg i årene som kommer?

**19:30- Hvis ting blir riktig ille, må jeg dra til Sveits?**

- Torstein Michelet, overlege Palliativt senter på Ahus

Hvilket tilbud har Palliativt senter til pasienter med kreft? Hvilke fremskritt er gjort de siste årene for å sikre god lindring til de som trenger det?

**19:45 - Kreftforeningen og Rosa sløyfe aksjonen**

- Kreftforeningen ved assisterende generalsekretær Ole Alexander Opdalshei og Joanna Majak Gundersen, overlege bryst- og endokrinkirurgisk avdeling på Ahus

Hvordan jobber Kreftforeningen, og hvordan samarbeider den med Ahus? Hvorfor er Rosa sløyfe aksjonen viktig, og hva brukes innsamlede midler til?

Det blir anledning til å stille spørsmål.

Store auditorium i hovedbygget på Ahus, Nordbyhagen. Du finner auditoriet i glassgata, rett innenfor hovedinngangen.

**Medarrangør**

Enhet for kommunikasjon

Prosjektdirektør for kreftsatsingen, Ivar Thor Jonsson.

## 16. Appendix 1: Research Groups

The following Research Groups were active as of June 2019:

### **Division of Medicine. Research Lead My Svensson**

- Cardiovascular Research Group ( Cardiovascular research group) ( Torbjørn Omland)
- Pulmonary Research Group ( Pulmonary medicine research group ) (Knut Stavem)
- Functional Genetics of Obesity Research Group (Yvonne Bøttcher)
- Clinical Neuroscience Research Group (Tormod Fladby)
- Gastrointestinal surgery research group (Jørgen Jahnsen)
- Center for haematology research at Ahus (Anders Dahm)
- Renal Medicine Research Group (My Svensson)
- Endocrinological Research Group (Ingrid Nermoen)
- Molecular and Clinical Oncology Group (Vessela Kristensen, Anne Hansen Ree, Jürgen Geisler, Hilde Nilsen)

### **Division of Surgery. Research Lead Juha Tapio Silvola**

The Surgical Research Group is evaluated together with the following subgroups:

- Anaesthesia (Vegard Dahl, Signe Søvik)
- Gastrosurgery (Ola Røkke, Dejan Ignatoivic)
- Vascular/Thoracic Research Group (Jarlis Wesche)
- Palliative medicine (Olav Magnus Fredheim)
- Ear-nose-throat (Magnus von Unge)
- Urology (Stig Müller)
- Quality and patient safety (Anne Karin Lindahl)

### **Orthopaedic Clinic/Research Group. Research Lead Asbjørn Årøen.**

- Orthopaedic Research Group (Asbjørn Aarøen)

### **Division of Gynaecology and Obstetrics. Research Lead Anne Eskild.**

- Women's diseases and obstetric care (Anne Eskild)

### **Division of Mental Health/ R&D Research and development.**

#### **Research Lead Ketil Hanssen-Bauer**

The R&D Department of Mental health care is evaluated collected with the following subgroups:

- Children & adolescents mental health (Marianne Villabø)
- Mental health, treatment and implementation (Kristin S. Heiervang)
- Substance Use and Addiction (Lars Tanum)

### **Research and Innovation. Research Lead Helge Røsjø**

- Health Services Research Unit (Hilde Lurås)
- Head and neck research group (Michael Russel)
- Clinical communication (Pål Gulbrandsen)

### **Division of Pediatric and Adolescent Medicine. Research Lead Vegard Bruun Wyller**

- PAEDIA (Vegard Bruun Wyller)

### **Division of Diagnostics and Technology. Research Lead Ulla Randen**

- Infectious medicine and microbiology (Hege Vangstein Aamot)
- Medical Biochemistry. Interdisciplinary laboratory medicine and technology (Sigmund Sperstad)
- Pathology Research Group (Ulla Randen)
- Clinical radiologist (Jon Terje Geitung)