

# Research Strategy

## The Department of Orthopedic Surgery

### Akershus University Hospital

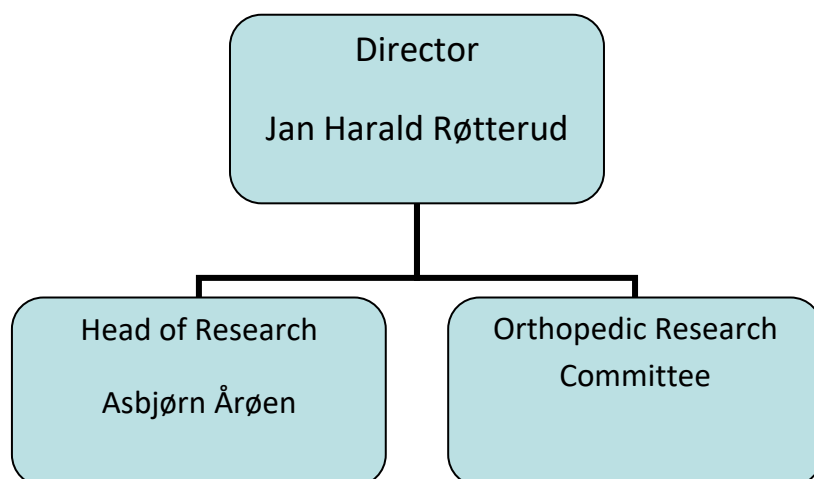
#### 2011-2016

#### *Introduction*

The clinic's research strategy aims to outline short-term and long-term goals for the research conducted and to be conducted at the Orthopedic Department of Akershus University Hospital, with the primary objective of benefiting the patients treated at the Orthopedic Department. An aspect of this strategy is also the prevention of injuries and complications related to injuries and their treatment. Research is directed towards ensuring that patients have a positive experience during their hospital stay since musculoskeletal injuries are a significant burden on affected individuals and a leading cause of work-related sick leave. The research primarily focuses on common fractures and joint injuries treated at the department. Research at Akershus University Hospital is expected to be clinical research and should be aligned with the hospital and the South-Eastern Norway Regional Health Authority's research strategies. The Norwegian Research Council recognized the quality of publications from the Orthopedic Department, as a bright spot in the evaluation of the surgical division's research in 2011.

#### *Organization*

The organization of research activities is under the research leadership for surgical disciplines, headed by Professor Tom Øresland. Below this level, research in the surgical clinic is organized as shown in the organizational chart.



The composition of the research committee is as follows: a representative of the department leadership (Inge Skråmm), a representative of the University of Oslo and the research leader (Asbjørn Årøen), a representative of the assistant doctors (Truls Straume-Næsheim), a representative of the senior doctors (Per Henrik Randsborg), supervisors with candidates enrolled in the doctoral program at the University of Oslo (Stein Erik Utvåg, Ulf W Sigurdson, Sigurd Erik Hoelsbrekken). Additionally, a nursing/administrative representative will join the research committee in the spring of 2014. The research coordinator at the orthopedic clinic also attends the meetings. Meetings are held on the first Thursday of the month, except during holiday periods.

## **Scientific staff/University of Oslo (UIO)**

The clinic is facing a shortage of space for clinical research and teaching but has increased the number of positions associated with the University of Oslo (UIO).

### UIO Positions

#### **Professor:**

This position is held by Asbjørn Årøen, who also serves as the research leader in the orthopedic clinic and as a supervisor for Svend Ulstein, Christian Owesen, and Jan Harald Røtterud in their doctoral projects. Furthermore, he acts as the supervisor for master's and physiotherapy student Karin Bredland at Oslo University Hospital (OUS) and as a co-supervisor for cand.med. Cathrine Engen in her research line at the Center for Sports Injury Research.

#### **Associate Professor:**

This position is held by Senior Consultant Stein Erik Utvåg. Utvåg is the principal supervisor for Dr. Dolatowski's doctoral project on hip fractures and is involved in a project related to the treatment of collarbone fractures, which is another clinical project for which Senior Consultant Henrik Fuglesang is pursuing his doctoral degree.

#### **University Research Fellow with Teaching Obligations (100% position):**

Henrik Fuglesang is conducting research on collarbone fractures.

#### **University Research Fellow with Teaching Obligations (50% position):**

Currently shared by Ola Lars Hammer, Senior Consultant Hammer is researching distal radius fractures with an external supervisor.

## **Departmental Staff Research Positions/Qualifications:**

### **Research positions (funded by the Department of Orthopedic Surgery)**

These positions are currently held by Svend Ulstein, who is researching ligament and cartilage injuries, and Christian Owesen, who is researching knee injuries in children and adolescents. Both of them are under the guidance of Professor Asbjørn Årøen.

### **Supervision**

The department currently employs six doctors with a Ph.D. degree and, consequently, with the competence to be research supervisors. Two of these have candidates enrolled in the doctoral program, but active supervision is also provided by the other three, in addition to conducting their own research. The goal is to involve all department members with research supervision competence in guiding the research conducted at the orthopedic clinic.

## **Research Projects**

As of 2014, the department has 30 projects either in progress or under planning. While this presents significant opportunities, it also means that the department, through the research committee, needs to take a more active role in refining projects to ensure the best possible quality, increase the chances of successful completion, secure funding, and facilitate publication.

### **Project Evaluation in the Department**

To ensure the successful execution and quality of projects initiated, all projects must undergo an internal approval process within the research committee before being presented to the department's management or submitted as applications for strategic funding within the hospital. Grant applications and evaluation reports from the Research Council of Norway (NFR) and South-Eastern Norway Regional Health Authority (Helse Sør-Øst) should be forwarded to the research committee for archiving and ongoing evaluation of the outcomes and results of these applications.

## **Approval of research projects**

Approval of projects places particular emphasis on the following criteria:

- High project quality
- The principal supervisor is employed at Akershus University Hospital
- A clear financing plan
- Contracts with MEDINOVA for studies with industrial sponsorship

Only in highly exceptional cases will the research committee approve projects that do not meet these criteria. This might primarily apply to purely experimental studies in cases where the department lacks its own resources.

## **Research seminar**

The Research Committee has been organizing research seminars since 2011 and will continue to hold them annually during the period from 2011 to 2016. Starting from 2012, we have included an external reviewer to enhance international collaboration on research projects within the department. In 2014, our plan is to further develop this into a more external symposium primarily targeting general practitioners and physiotherapists in the local area, with simultaneous international speakers.

## **Collaborators**

The department currently has international collaborations with research environments featuring highly ranked researchers in the USA (Vail, Colorado, and Alexandria), Sweden (Stockholm), nationally with Oslo University Hospital (4 projects), and the Joint Replacement Registry in Bergen (2 projects). Internally, at Akershus University Hospital (Ahus), there is collaboration with EPIGEN and HELTEF. The department has also established a strong research collaboration with Østfold Hospital.

## **Publications**

In the past three years, the department has not increased its number of publications but has ranged from 11 to 15 publications. The goal is to publish between 20-30 articles by the end of the strategic period. In the last two years, the department has had several publications in the highest-ranked journals in the field of orthopedic surgery, and there is a strong desire to maintain this quality mark on the research conducted in the Orthopedic Clinic by continuing to prioritize only high-quality projects in the Orthopedic Research Group.

## **Funding**

Through targeted and effective efforts by individuals, as well as strong support from the department, the department has succeeded in obtaining support for independent research on clinical issues. However, achieving the goals and priorities in the upcoming 5-year period requires improvement in this area. This can be achieved by having applications undergo internal evaluation before being submitted to the South-Eastern Norway Regional Health Authority (Helse-Sør-Øst) and the Research Council of Norway (Norges Forskningsråd). The goal is to increase the number of applications and the success rate in terms of obtaining support, especially from external sources.

## ***Aims for 2011-2016***

- Complete the doctoral projects that were registered with the University of Oslo in 2011 by the end of 2015, with the aim of finishing five doctoral projects in this 4-year period. The research group has managed to follow this plan so far, with one defense per year.
- Start two postdoc projects during this period. (Two postdoc projects are in the early stages.)
- Secure funding for three new projects through the South-Eastern Norway Regional Health Authority (Helse-Sør-Øst) or the Norwegian Research Council (NFR), doubling the current situation. So far, funding has been obtained for one additional project in addition to those already funded at the beginning of the strategic period.
- Increase the number of Doctoral Research Fellow (D) positions to correspond to the various sections of the department, meaning a total of four D positions. The goal was to increase from one to two positions during the relevant 5-year period, which was achieved in 2014.
- Have four senior researchers at the department, with their employment linked to the University of Oslo (UIO) through adjunct or external funding. These senior researchers are expected to provide active supervision in addition to their own research. Currently, there are two senior researchers in the department.
- Increase the recruitment of women in research at the Department, with the initiation of nursing projects within the orthopedic research group.
- Further develop the collaboration with HELTEF, which has functioned well in the previous 4-year period.

## ***Priorities within the current planning period***

In summary, the priorities for the current planning period (2011-2016) include:

- Establishing two new senior researcher positions, funded either through UIO or hospital resources, or with external funding in the form of postdoc projects.
- Increasing the success rate in obtaining external funding from Helse-Sør-Øst/NFR. The goal is to secure support for at least one project in each round of external funding. By the end of 2016, the aim is to have three new projects funded by NFR, Helse Sør-Øst, or EU Grants.
- Creating dedicated facilities and office space for senior researchers and the research unit near the administration area to ensure seamless integration of research into the department's daily operations.
- Clearly defining the research structure within the department and appointing a part-time research coordinator to support the research committee's work.
- Maintaining and improving the quality of orthopedic research at the department by publishing one or more articles in journals ranked in the top three in orthopedics. Ideally, there should be one or two publications with an impact factor exceeding 3.9, such as Osteoarthritis and Cartilage, which is currently the highest-rated journal in orthopedics.
- Supporting the initiation and development of nursing research within the department and rehabilitation research in collaboration with the physiotherapy department.
- Ensuring that research projects are initiated in all sections within the clinic.

The long-term goal over the five-year period is for Akershus University Hospital to become a leading institution in self-initiated clinical research, directly benefiting large patient groups using its own patient data and fostering young and innovative research groups through international collaborations.

These priorities aim to strengthen and advance research efforts within the orthopedic department and contribute to its development as a leader in clinical research and innovation.