



Research strategy for Sunnaas Hospital HF

2013 – 2016



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Introduction

The research strategy for Sunnaas Hospital HF 2011-2016 is based on the current research strategy 2011–2013, which in turn is based on previous research strategies since 2003, adjusted according to international assessments under the auspices of the Research Council of Norway in 2002 and 2010.

”Strategy for Research and Innovation Helse-Sør-Øst RHF 2013-2016”, draft version per 16.07.12, says:

”Research is one of the four statutory tasks for the health organizations, and is a central premise for the quality and development of health services. It will benefit patients and the population through the establishment of new knowledge and increased competence. Own research activity promotes critical thinking, increases quality awareness and enables the healthcare service to generally utilize international research results and experiences. The research will provide a knowledge base for prevention, diagnostics, treatment, care and rehabilitation, as well as innovation and business development.

Research should be facilitated at all health organizations. Research in the region will be adapted to thematic guidelines from the authorities.

The research shall maintain a high international quality level, have sufficient width and interdisciplinarity, and contribute to good organization and efficient use of resources in the health region. The research administration in the health region shall include good, open and competent processes based on sound assessments.

Research results shall be of practical use by strengthening innovation work in the region”.

Sunnaas Hospital HF has been given a very central role in development in the field of rehabilitation, both regionally and nationally, and also has university functions, as well as the potential according to the international research assessment 2010 to become one of the world's leading rehabilitation institutions. Close collaboration with international research groups is required to promote the development of the subject. Sunnaas Hospital HF therefore has a special responsibility for conducting research and networking in the field of rehabilitation.

The work within specialized rehabilitation is more interdisciplinary than most other medical disciplines, and it is therefore particularly necessary that all professional occupations at Sunnaas Hospital HF achieve research competence and conduct active research.

Sunnaas Hospital HF has one representative in the research committee Helse Sør-Øst (currently head of nursing Grace Romsland) and one representative in the administrative Research leader Network Helse Sør-Øst (currently research director Johan K. Stanghelle). Sunnaas Hospital HF thus has a central position in relation to information, collaboration and influence in Helse Sør-Øst.

Definitions

Sunnaas Hospital HF chooses the same definition of research as proposed in the Helse Sør-Øst research strategy:

Medical and health research

Medical and health research is an activity that is carried out using scientific methods to generate new knowledge and recognition, that in short or long term may be relevant for patient treatment and for the healthcare service. The research is quality assured and disseminated through external peer-reviewed publications.

Translational research

Translational research is medical and health research that results in the utilization of knowledge of disease mechanisms and methodology from basic research in the development of new methods of medical and health-based prevention, diagnosis, treatment, care and rehabilitation. Translational research also includes the transfer of knowledge from clinical trials to clinical practice and evidence-based health management, organization, and administration (health-based decision making).

The research is distinguished from development work through the following definition of development work:

Professional development

Medical and health development work is an activity that is carried out to evaluate and improve clinical activities and its organization on the basis of existing knowledge from research and practical experience, and that is documented through publication. Since the goals of the development work often are local quality improvement, there is not always external communication of the development work. This is nevertheless desirable, for example, as a report.

Organization

Today, Sunnaas Hospital HF has organized the research in a separate research department. This department includes the formal university and college functions, the academic departments' leaders and PhD candidates – as well as clinical support functions with the laboratory activities. As of date, TRS (the training and counseling center for 7 rare diagnoses) is also organized in the research department.

The research department is currently headed by the research director, professor dr. med. Johan K. Stanghelle. He is the department's representative in the organization's management. The administration is headed by first counselor Annette Juelsen.

Development projects and master's projects have been organizationally assigned to the department to which the employee/master's degree student belongs, and have thus been organizationally responsible for the clinic, while all doctoral students are organized in the research department.

It is a very relevant issue to establish combined positions of research/clinic/education at the hospital. This is becoming increasingly relevant as the number of people with completed doctoral degrees increases, and is also the desired development for a combined clinical and academic institution in the future. The figure shows the development at the hospital in the period 2003–2012 when it comes to professionals with PhD and university/college affiliation:

Sunnaas: Research/education competence 2003-12:

| | Doctoral degree | | Professor/amanuensis | |
|---------------------------------|-----------------|-----------|----------------------|-----------|
| | 2003–2012 | | 2003–2012 | |
| Doctors: | 3 | 11 | 1 | 3 |
| Psychologists: | 0 | 5 | 0 | 2 |
| Physiotherapists: | 0 | 6 | 0 | 3 |
| Occupational therapists: | 0 | 2 | 0 | 2 |
| Nurses: | 0 | 2 | 0 | 2 |
| Social workers: | 0 | 1 | 0 | 1 |
| Special educators: | 0 | 3 | 0 | 2 |
| TOTAL | 3 | 30 | 1 | 15 |

Johan Stanghelle



It has been a goal to keep relevant professionals in postdoc positions at the hospital, preferably in combination with university/college affiliation. This work may have the highest priority in the research strategy in the near future.

Sunnaas Hospital HF currently has 2 postdocs at the Medical Faculty, University of Oslo, in addition to 1 professor and 1 first amanuensis. Furthermore, there are 2 professors / first amanuensis at the psychology department, University of Oslo, 3 first amanuensis positions at the University of Oslo and Akershus (nursing, occupational therapy and physiotherapy), 1 first amanuensis at the Norwegian School of Sport Science (Norges Idrettshøyskole) and 1 first amanuensis at the special education department, University of Oslo.

In addition to these internal positions, we have guest professors in medicine (University of Gothenburg), physiotherapy, occupational therapy and social work (Karolinska Institutet), nursing (University of Southern Denmark Odense). A separate collaboration and affiliation agreement has also been drawn up with two research groups at the Karolinska Institutet, respectively in physiotherapy and basal physiology. The hospital is also in the process of establishing a collaboration agreement with the nutrition department, the University of Oslo, and the employment of a clinical dietician in a combined clinical and research-related position.

It is recommended that master's students be affiliated with internal thematic research groups, and that they receive main or bi-supervision from PhD or postdoctoral level at Sunnaas Hospital HF. This way, it will also be possible to ensure that the master's theses supplement existing prioritized research tasks at the hospital. It is suggested that the Research strategy for Sunnaas Hospital HF 2013 – 2016



administrative personnel management of master's students still be handled by the clinic, but that the academic management of the master's program be maintained at the research department. For PhD and postdoctoral positions (shared positions), it will probably be best to have shared staff and administrative responsibility between the clinic and the research department.

According to the guidelines from Helse Sør-Øst, all research activities must be anchored by the hospital's research director, which in practice will be the director or person with delegated overall responsibility for research at the institution. It must be an overall goal to organize the activities at master's, PhD and postdoc levels, in order to achieve the best possible coherence in all research activities at the hospital. For the time being, it will be best to organize this from the research department, but in close collaboration with the clinic management. A professional forum research-clinic has recently been established, consisting of the clinic and section management, the academic director, the research director and the academic manager. It is proposed that this forum be further developed. It is also proposed to build up research groups within various current issues and prioritized patient groups at the hospital, so that everyone involved in research belongs to at least one such thematic research group.

Helse Sør-Øst has detailed guidelines for the organization and audit of research at the health organizations, and it requires good administration in the research department to comply with these, including in collaboration with the data protection officer (contact person Helge Grimnes), which is shared with Oslo University Hospital. We will also strive for increased contact and collaboration with Helse Sør-Øst's research support department (Oslo University Hospital HF Department for research administration and biobank).

Funding

Helse Sør-Øst's objective is that 5 % of the total budget shall be allocated for research purposes within undefined time periods, and the individual hospitals are recommended to follow the same objective. Sunnaas Hospital HF has had great ambitions to invest in research activities since 2003, and according to NIFU STEP they have spent 3.7 % of the budget for research and 5.6 % for research and development (2011), and is thus among the HF invest the most. However, the goal according to the board decision of Sunnaas Hospital HF is 7 % for research by 2014, approximately equivalent to Oslo University Hospital HF, which can further strengthen the institution as a national leader in medical rehabilitation and rehabilitation research – possibly making the institution a top world leader.

The research at Sunnaas Hospital HF has been funded by external and internal funds. The internal funds have been used mostly for the academic managers and university/college positions, i.e. essential guidance positions. External research funding has so far mostly funded all PhD scholarships at the hospital, via ExtraStiftelsen Helse og Rehabilitering, Helse (Sør-)-Øst, Birgit and Rolf Sunnaas' Memorial Fund and the Research Council (Forskningsrådet), usually with a 3-year PhD or postdoctoral grant. The hospital has provided end-funding and partial financing after individual assessment to secure some of the projects and keep attractive PhD candidates. In addition, it is calculated according to a national standard "overhead" for all registered scholarships at the hospital, so that external funding in practice means expenses for the health organization. In the future, partial financing of the combined research positions will be relevant.

The hospital has also prioritized the construction of a movement laboratory, with combined clinical and research tasks, where partial funding has been received so far from Helse Sør-Øst.

So far, Sunnaas Hospital HF has not managed the research content by announcing research funding in priority areas for research activity, which will be desirable to an increasing extent when one can prioritize between relevant postdoctoral candidates. For example, research within interaction can become a new focus area, especially with connection to the new regional center of expertise in rehabilitation. This will ensure that the research is rooted in clinical issues and that researchers at postdoc level should also have PhD candidates within their areas of expertise for supervision. This will provide further strengthening of interesting research areas as well as giving credit to further academisation of post doctors.

The figure below shows the great interdisciplinary potential that now exists for future research at Sunnaas Hospital HF:

RESEARCH COMPETENCE 01.09.2012

| | PhD | + stud. | Master + stud. |
|-----------------------------|-------------------------|-------------|------------------------|
| DOCTORS | 11 of 40 (28 %) | +4 | |
| PSYCHOLOGISTS | 5 of 23 (22 %) | +5 | |
| PHYSIOTHERAPY | 6 of 55 (11 %) | +4 | 10 (18 %) + 6 |
| OCCUPATIONAL THERAPY | 2 of 46 (4 %) | +1 | 11 (24 %) +3 |
| NURSING | 2 of 120 (2 %) | +1 | 9 (8 %) +8 |
| Spec.ped. | 3 of 10 (30 %) | +2 | 5 (50 %) +3 |
| Social workers | 1 of 18 (6 %) | +1 | 3 (17 %) +2 |
| Total | 30 of 312 (10 %) | + 18 | + 38 (15 %)+ 22 |



An interesting and ongoing discussion area for Sunnaas Hospital HF is whether or not one receives research funding from Helse Sør-Øst after production of NIFU STEP points corresponding to other HFs, calculated on the basis of produced doctoral degrees and international publications. For the past three years, Sunnaas Hospital HF has officially received the following NIFU STEP points:

The development of NIFU STEP points Sunnaas Hospital HF:

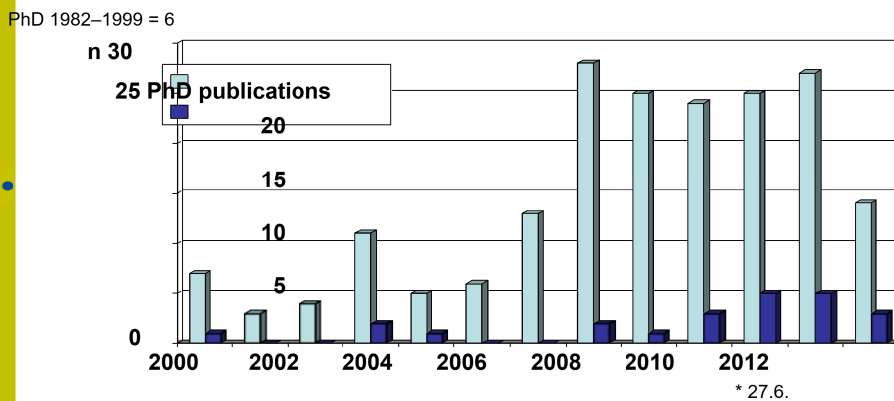
- 2007: 17.9 points
- 2008: 12.6 points
- 2009: 21.3 points
- 2010: 20.3 points (dr.grad reduced from 5 to 3 points)
- 2011: 28.3 points

Johan Stanghelle



The development in publications and doctoral degrees from Sunnaas Hospital HF is shown in the figure below, and clearly demonstrates that we are now beginning to see the effect of investing in research from 2003. As of half of 2012, it is likely that in 2012 five doctoral degrees will be awarded and 25–30 publications will be produced. For the years 2013–2016 it is realistic to have similar or further increased production.

Sunnaas Hospital HF: International Publications and PhD 1982–2011



Johan Stanghelle



Sunnaas Hospital HF thus aims to have a qualitative redistribution of research resources 2013–2016, with more people at the professor and postdoctoral level, and possibly some fewer at the PhD student level and the master level, but the latter will largely depend on external funding and/or affiliation with postdoctoral degrees. It means we have

a great potential for becoming a future knowledge company within physical and rehabilitation medicine:

Internationalization

An international assessment of the research activities in Norway in 2003 and 2010 also included Sunnaas Hospital HF as the only health organization outside the university hospitals. The evaluation in 2010 gave the following conclusion:

Research Sunnaas Hospital HF

Recommendation:

The panel recognizes several improvements since the last evaluation. SunHF has gradually increased the internal budget for research, now being 3.8 % and aiming for 7 %. This has allowed a rapid progress in the academic competence of SunHF. The panel encourage continuity with similar strategy, and considers SunHF a leading rehabilitation center in Norway. In addition, there are realistic possibilities to develop it towards one of the leading rehabilitation centers in the world. This is in accordance with the decision to be a national competence center in specialized rehabilitation.

Johan Stanghelle



The research is international by nature, as publication in international journals is usually the goal for most researchers. Thereafter, participation in international congresses with the presentation of their own work is a natural part of the process, as well as any internships or visits to relevant international institutions.

The research strategy for Helse Sør-Øst is stimulated to increase international research collaboration. Besides, among other things, international collaboration is required for financing major research projects within the EU. Sunnaas is now participating in several EU applications, and it may be relevant to get involved in EU projects or applications for such. The aim is to maintain oneself updated, and encourage interested parties to participate in EU projects, but involvement in EU projects requires considerable resources and expertise. There are also several projects at Sunnaas that actively involve international partners, and one can increasingly encourage to such projects. For example, the "fall project" is a comparison between Norway and Sweden with regard to fall injuries in patients with spinal cord injuries, as well as a multinational project on stroke rehabilitation involving centers in China, Russia, the United States, Israel, Palestine and Sweden – apart from Sunnaas.

Both the guest professor arrangement and the movement laboratory (Vicon user group) contribute to significant Nordic and partially international collaboration, and work is being done on specific joint research projects.

All PhD candidates and researchers, in general, also have their contact network and partners nationally and internationally, which is very useful for Sunnaas hospital in general. The research department will continue to contribute to organizing an annual International Network Seminar in Rehabilitation together with partners from the Rusk Rehabilitation Institute in New York, the China Rehabilitation and Research Center in Beijing, as well as centers in Karelia/Russia, Sweden, Palestine, Israel. The purpose is increasingly to collaborate on research.

Content of the research

The main goal for the research at Sunnaas Hospital HF is to contribute to ensuring that the clinical patient treatment for the hospital's target groups is as evidence-based as possible, as well as to contribute to new knowledge about the target groups and evaluation of new methods for treatment and diagnostics that may benefit the hospital's target groups.

At Sunnaas Hospital HF, there is a need for, and conditions are well suited for, clinical research that improves knowledge and recognition within the patient groups one works with, for example patients with spinal cord injury, brain injury, post polio syndrome, multi-trauma, cerebral palsy, other neurological conditions, rarer syndromes and patient groups at TRS and more. As a basis for the rehabilitation work, there is a need for descriptive studies and follow-up studies of the different patient populations. There is a clear need for measure research within rehabilitation, both initiated from Sunnaas and as participation in multicenter studies. There is also a need to elucidate various mechanisms by quantitative or qualitative methodology. Sunnaas hospital has expertise in cognitive rehabilitation. There is a need for effect studies of different treatment measures. There has also been a great potential for research in musculoskeletal disorders. We will work actively to create a combined quality and research register.

The conditions at Sunnaas Hospital HF are also suitable for some basic research. This type of research requires collaboration with other research groups, national or international. The important thing for conducting this type of research is that it is linked to our target groups. Due to the responsibility for people with rare diagnoses (TRS), genetic population studies can also be facilitated in collaboration with the genetic communities.

At Sunnaas Hospital HF, clinical examinations, examinations from the various laboratories, various questionnaires and qualitative interviews can be used methodically. Other methods can be used when collaborating with different research environments.

The establishment of thematic research groups will contribute to an increasing prioritization of research areas and the definition of focus areas for research at Sunnaas in terms of research content and methodology.

Academic development

The clinic is assigned the main responsibility for the academic development in the respective departments, but we hope that the establishment of combined positions will eventually lead to the research department also contributing to a greater degree. Academic development for laboratory activities is assigned to the research department. The academic managers can contribute significantly to this work, especially with

development of educational plans, academic supervision and training programs in evidence-based practice.

In the research strategy 2013–2016, one proposes that master's students be anchored to PhD and postdoctoral projects at the hospital, and that master's students should also belong to one or more thematic research group, in line with other researchers. This way, we want the research activity at the hospital to be more connected and directed towards strategic areas, even though there will still be an opportunity for individual creative projects within the research.

One proposes master projects being considered in collaboration between the departments and the research department (by the academic managers), that the master's thesis is attempted in connection with existing research projects and internal main or secondary supervisor, that the master student is connected to a thematic research group, and that administrative/academic affiliation is thus divided between the clinic and the research department.

Innovation

”Research results shall be of practical use by strengthening innovation work in the region,” says the strategy in Helse Sør-Øst. The research department will contribute to implementing this objective at Sunnaas Hospital HF through active support for the work with incorporating innovation culture and innovation projects at the hospital. These activities and this strategy are promoted in a separate strategy.

Specific goals for the research at Sunnaas Hospital HF 2013–2016

1. Further develop the university function for four employees at the Faculty of Medicine, department of clinical medicine (teaching changes, research collaboration)
2. Further develop the connection with the psychology department, University of Oslo, with the establishment of position no. 2.
3. Further develop a sense of belonging to, and collaboration with, the College in Oslo and Akershus for physiotherapist, occupational therapist and nurse in combined positions, and contribute to the college's further development towards university status.
4. Further develop affiliation to, and collaboration with, the Norwegian School of Sport Science (Norges Idrettshøyskole), with a combined position.
5. Further develop belonging to, and collaboration with, the department of special needs education, with a combined position.
6. Academic managers for special educators / speech therapists and social workers are compared to other academic managers.
7. Further develop agreements with guest professors and research group at Karolinska Institutet in physiotherapy, occupational therapy and social work, including the start of a joint research project.
8. Further develop an agreement with a guest professor in nursing sciences (University of South Denmark).
9. Further develop agreement with guest professor in medicine (University of Gothenburg).
10. Employ a clinical dietician in collaboration with the University of Oslo, nutrition department, and explore the potential of research on our patient groups.
11. Employ relevant professionals with PhD in combined positions according to individual assessment and with individual employment contracts the hospital finds most appropriate.
12. Promote research within interaction, especially in collaboration with the new regional center of expertise for rehabilitation.
13. Regular training/repetition in knowledge-based practice for all professionals.
14. Establish closer contact with the competence centre for research, Kompetansesenteret forskningsstøtte for HSØ, especially to get help for library services, biobanks, statistics and other research guidance.
15. Further develop academic forum clinic-research; for clinic managers, head physicians, academic leaders, research manager and academic director.
16. The research is made visible in peer-reviewed journals, at least 25 articles/year, and at least 3 doctoral degrees/year.
17. Contribute to applying for external funding, especially from Helse Sør-Øst, the Research Council and Health and Rehabilitation, but also EU funding.

18. Facilitate research stays abroad for PhD/postdoc scholarships from Sunnaas Hospital HF.
19. Encourage active international participation in congresses and meetings, as well as arranging the annual Sunnaas International Rehabilitation Seminar with international contact network.
20. Create thematic research groups where all researchers including master students should have at least one affiliation.
21. Work actively to develop a culture for innovation (own strategy).
22. Funding of research aims to increase to 7 % of the gross budget (calculated by NIFU STEP) during the 3-year period.