

Mid-way evaluation of the CIRRO center in Aarhus 2011 11 09.

The Lundbeck Foundation Center for Interventional Research in Radiation Oncology (CIRRO) forms a very important and well coordinated research project in cancer care focusing on radiotherapy. Of special relevance is the ambition to engage the entire Danish radiotherapy network. Within CIRRO there is an excellent opportunity for interaction between basic, translational, and clinical research which brings together modern biology, physics, and medicine.

The center was funded by Lundbeckfonden 2008 and started February 1, 2009. The center was quickly established. CIRRO used an open contract with all partners and funds were distributed upon performance. This organization allowed for a quick deployment and smooth administration. The rapid start of CIRRO was also due to that many ongoing projects and PhD students from participating departments were incorporated into CIRRO at its start. This was only possible with excellent planning and leadership. According to the instruction the following issues were addressed:

Added Value

CIRRO created an impressive coordination of Danish clinical oncology and specifically in radiotherapy. From this several synergies between physicist and clinicians have emerged. The recruitment of new scientists into the field has been improved. Several small centers have been included and joined parts of the program. This has in turn improved the dissemination of systematic clinical development methodology.

Other external funds

The center economy is based on a third each of funds from Lundbeck, other open grant sources and money from hospital/university. The majority of funds in the latter part is from the hospitals.

Foreign expertise

The center has not focused on recruitment from abroad and we note that the structure of the PhD candidate recruitment promotes local non-competitive recruitment. This could be seen as a possible area of improvement. No PhD students from abroad have been recruited.

Flexibility and Impact

The network that the center has established has improved exchange of knowledge between participating departments. Also, the ability to generate good size clinical studies with international potential for impact is an important achievement.

Synergies

Interdisciplinary cooperation has been noted along the translational axis from the lab to the patient. Also, the cooperation with Danish Technical University(DTU) represents an improved collaboration climate between physics and medicine. In general the publications in clinical journals are of proper international standard. This level of impact has been reached partly by the translational quality in the research. The interaction between the partners has been smooth, partly because of a wise strategy for the distribution of the internal funds. We did not note any papers with joint first authorship.

Bottle necks

CIRRO has contributed to permanent positions at the University which after CIRRO will be financed by the University. This will have long term impact on the field.

The large cohort of PhD candidates stretches the ability for tutoring and will later demand more positions for postdoc.

Post CIRRO activity

The center has established a radiation planning database on all patients included in their studies. This will be integrated in clinical research and routine and hence it represents a practice change that will outlive CIRRO.

Most of the PhD students will finish their training within the funding period. This will simplify the down scaling of the center. Several of the infrastructures will be perpetuated. The University seems to be involved in this plan, at least in Aarhus.

The CIRRO center will have a prominent international standing regarding the clinical science. This international impact could be further improved with a focused cooperation with other pre-clinical groups (not in the present center structure).

Conclusion:

We were very impressed with the CIRRO center. The general development of the center adheres to the application. The center has performed well in all work-packages outlined in the application. The international advisory committee was very positive to the developments in CIRRO and stated: "Accomplishments in terms of scientific output are fully in line with ambitious expectations." The rapid deployment and the national scope was particularly positive to see.

In conclusion we strongly recommend continued support to CIRRO.

Martin Ingvar

Bertil Hamberger