

## **The Comprehensive Cancer Center – a Translational Research Environment**

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Cancer is an increasing problem of world wide significance. This is for the most part related to the increasing ageing of the population. For the health care the increase in prevalence in well developed countries is of even greater importance. In Sweden for example the prevalence of cancer patients increased 30% over a 10 year period. The largest part of the increase is due to the improved survival of patients with chronic disease. The overall strategy for meeting the cancer problem is primary prevention to change the incidence rates. To solve the problem of increasing prevalence, innovation in the health care is mandatory. Innovation is dependant on high quality of the health care and innovations through cancer research. Therefore the concept of translational research is under discussion globally, in order to find optimal ways to decrease the time from important basic discoveries to implementation of new knowledge in health care. The definition of translational research is a research continuum from basic research through preclinical and clinical research to structured implementation to the health care and evaluation. In the Comprehensive Cancer Center care and prevention are integrated with research, development and education. The Comprehensive Cancer Center has by definition all structures needed for a continuous research process. Fundamental to the Comprehensive Cancer Center is multidisciplinary in the health care and integration of the research process. The main mission of OECI is to facilitate the development of Comprehensive Cancer Centers in Europe . Europe has problems with a fragmented health care system as well as cancer research. Europe has, however, a number of strengths. There is a strong basic research platform. The intellectual capital is an advantage when compared to other continents. The health care system in several countries offers the possibility to develop population based patient registries but also the use of population based patient materials for clinical trials. There are good opportunities to establish tumour banks. There is, however, criticism towards cancer research since effects on cancer care and prevention is regarded insufficient. This is due to the fragmented research process. If basic, preclinical and clinical research become more integrated an important part of the problem will be solved. Another problem is the ability of the health care system to implement new research results in routine care. There is a need for a structured implementation process of new diagnostic and treatment methods followed by an evaluation in the routine care. If a complete translational research process can be established the important goal of moving into individualized treatment of cancer patients can be achieved.

Due to the complexity of the cancer problem it is not enough to establish the Comprehensive Cancer Centers. They should also be harmonized for collaboration. The need of a critical mass for achieving important research tasks is an increasing problem. Collaboration between Comprehensive Cancer Centers should involve harmonization of infrastructures. This is necessary if an optimal collaboration of research groups will be reached. One further aspect is the complexity in the care of cancer patients which requires multidisciplinary. Given this background, the research questions, which must focus on the needs of the patients, over time require collaboration between multiple research teams.

At present several European activities focus at the need to develop translational research. We need to overcome the fragmentation and reach the critical mass. We need to establish a translational cancer research platform in Europe and the research should focus on questions of importance for cancer patients or potential patients. We need collaboration between Comprehensive Cancer Centers. Therefore the mission of the OECI is increasing in importance.