



Newsletter

CREATE Health - a Strategic Centre for Translational Cancer Research at Lund University June - 2015

Chinese collaborators visited CREATE Health this spring

The management of one of China's two national cancer hospitals, Tianjin Medical University Cancer Institute and Hospital (TMUCIH), recently visited CREATE Health to discuss ongoing collaborations. Researchers from CREATE Health has a long-term collaboration with doctors and researchers from TMUCIH in a pancreatic cancer project. CREATE Health has developed a test for early diagnosis of pancreatic cancer that has now been evaluated in a Chinese patient cohort. The project has been very successful and a scientific publication will be submitted shortly.



Discussion between Prof. Carl Borrebaeck (LU), Prof. Ping Wang (TMUCIH) and Dr. Ulrika Ringdahl (Invest in Skåne)

- This is based on one of Lund University's first life science agreements with China, says Carl Borrebaeck, Director of CREATE Health, adding that a similar project in ovarian cancer now is planned. As the cancer treatment in the future will be increasingly tailored to the patient's genetic conditions ("Personalized Medicine"), a project like this can also show if diagnostic conditions are different between Caucasians and Asians. The President of TMUCIH, Ping Wang, is also satisfied: - Lund University is world famous for its innovative, interdisciplinary environment and we are looking forward to future collaborations. The project collaboration was made possible after an initiative from Invest in Skåne in 2012 when they initiated and planned visits to 16 different cancer hospitals in China. The outcome was successful and resulted in a long-term agreement. Invest in Skåne was cohosting this visit. The Chinese visit was noticed by LUM, Lunds universitets Magasin, with an article in LUM #4.

Cutting Edge Projects finished

CREATE Health launched the Cutting Edge (CE) Projects in 2012/13. The aim was to increase cooperation within CREATE Health and to enable new and innovative projects not implemented in the framework of regular grants to grow and to mature to eventually attract external funding. After one year, the four projects were evaluated, and three projects got extended funding. The project time is now brought to an end and a final report has been handed in to the board.

The CE-projects turned out to be a great success and all projects have produced several publications and are now applying for external funding. This can be exemplified by projects being part of applications to Vetenskapsrådet and to Cancerfonden 2015.

The three CE-projects are:

- **Detection of Cancer Cells in Sentinel Nodes** P. James/S. Waldemarsson and C. Rose/E. Niméus
- **Comprehensive platform and software development for protein arrays** C. Peterson/P. Edén and C. Borrebaeck/C. Wingren
- **Multiplexed immunoassays in solution - novel opportunities for high-throughput disease proteomics** Åke Borg/A. Kvist/C.Peterson and C. Borrebaeck/Wingren/A. Isinger-Ekstrand

CREATE Health publication on coffee affecting breast cancer gets attention

Lund University researchers and Carsten Rose, Deputy Centre Director of CREATE Health, recently published a study in *Clinical Cancer Research* (Rosendahl, A.H. *et al.*) on dietary factors, such as coffee, and how it may influence breast cancer and modulate hormone receptor status in breast cancer patients. The conclusion of this work was that moderate (2–4 cups/day) to high (≥ 5 cups/day) coffee intake, for women affected by breast cancer, was associated with smaller invasive primary tumors and lower proportion of ER+ tumors, compared with patients with low consumption (≤ 1 cup/day). Moderate to high consumption was associated with lower risk for breast cancer events in tamoxifen-treated patients with ER(+) tumors. The findings show that caffeine and caffeic acid against both ER+ and ER- breast cancer may sensitise tumor cells to tamoxifen and reduce breast cancer growth. The publication attracted worldwide attention in the press.

Breast Cancer Index

Professor Peter James and his group has developed a technique for, in-depth analysis of the proteome in Breast Cancer, resulting in their unique Breast Cancer Index. This is based on >13 million mass spectrometry (MS) spectra and covering over 13.000 proteins expressed in breast cancer. The aim is to understand the proteins' functions, signal pathways and why the tumours respond differently to the same treatment. The Breast Cancer Index is recently finished and the manuscript has recently been submitted. To be able to commercialize parts of the index, we have finished a novel database format with the clinical data for the breast cancer index. The index itself, without any links to clinical information, has been deposited at the PRIDE database at the European Bioinformatics Institute.

Scientific Advisory Board meeting

The CREATE Health Scientific Advisory Board (SAB) meeting took place the 14th of January 2015, at Biskopshuset in Lund. CREATE Health PI:s and co-PI:s presented their work at was turned out to be a successful meeting. The SAB expressed their impression of CREATE Health in the report:

“The Advisory Board was generally impressed, as previously, with the excellent work carried out. Evidence for this statement was clearly provided in the form of excellent publications. The CREATE Health effort has undoubtedly been a role model in the general area of cancer research, acknowledging very early that this area begs the involvement of a wide range of multidisciplinary approaches to the study of fresh patient derived samples, rather than single technologies, in order to make progress scientifically and translationally.”

SAB members are:

Prof. Sören Brunak (Chair), Technical University of Denmark
Prof. John Foekens, University of Rotterdam, The Netherlands
Prof. Nadia Harbeck, University of Munich, Germany
Prof. Torben Falck Örnthoft, Århus University, Denmark
Prof. Bengt Glimelius, Uppsala University, Sweden

MAD for Cancer web launched in April

The Make a Difference (MAD) for Cancer Program released its new website www.madforcancer.lu.se in April 2015. On the website and on YouTube you also find a short film about *MAD for Cancer*.

The *MAD for Cancer* Program is a cancer research program at Lund University collaborating with organizations, such as CREATE Health. *MAD for Cancer* have a unique concept in that it brings together several different approaches of cancer biology from four different faculties to fight cancer. The project is based on the insight that a tumor is not only a bag of cancer cells, but rather an organ that needs to be approached from several angles to be eradicated. The *MAD for Cancer* Program is one of the 12 projects selected in the fundraising campaign in celebration of Lund University's 350-year jubilee

“Lund University – For a better world”.

Link to *MAD for Cancer* campaign:

<http://donationskampanj.lu.se/projekt/cancerforskning>



SWELife

CREATE Health initiated 2013 an application for a Strategic Innovation Area called “Personalized Medicine in Cancer” (PMC). The proposed structure for the Personalized Medicine in Cancer aims to support, facilitate and implement the national collaboration between industry, academia and health care providers. This initiative is now a part of the larger strategic Innovation Program SWELife.

Vision for PMC

Sweden will be one of the first countries in Europe offering a national health care system based on Personalized Medicine. Personalized Medicine should be implemented nationally in clinical practice and thereby improve the health of the citizens. For more information: www.SWELife.se

Cancer Crosslinks 14 October



The 3rd Cancer Crosslinks in Lund is scheduled for the 14th of October 2015 and takes place at Medicon Village, Lund. It is arranged by CREATE Health, in collaboration with Bristol-Myers Squibb, Merck and Roche. The

theme of the meeting will be “Personalized Medicine and Immuno-oncology with a clinical focus”.

The keynote speaker, Prof. Douglas Hanahan, Swiss Institute for Experimental Cancer Research, is renowned for the papers The Hallmarks of Cancer (2000 and 2011).

Cancer Crosslink concept was established in 2007 when Oslo Cancer Cluster, in collaboration with Bristol-Myers Squibb, arranged the first Cancer Crosslinks meeting. For more information: <http://www.delegia.com/crosslinks>



Most recent publications

Kurbasic, E. et al. Changes in Glycoprotein Expression between Primary Breast tumour and synchronous lymph node metastases or asynchronous distant metastases. *Clinical Proteomics*. In press.

Antberg, L. et al. Pathway-centric analysis of the DNA damage response to chemotherapeutic agents in two breast cell lines. *EuPa Open Proteomics*. In press.

Cifani, P. et al. A proteomic analysis of radio-resistance in breast cancer cell lines. In press.

Elebro, K. et al. Combined Androgen and Estrogen Receptor Status in Breast Cancer: Treatment Prediction and Prognosis in a Population-based Prospective Cohort. *Clinical Cancer Research*. 2015

Rosendahl, A.H. et al. Caffeine and Caffeic Acid Inhibit Growth and Modify Estrogen Receptor and Insulin-like Growth Factor I Receptor Levels in Human Breast Cancer. *Clinical Cancer Research*. 2015

Huzell, L. H. et al. History of oral contraceptive use in breast cancer patients: impact on prognosis and endocrine treatment response. *Breast Cancer Research Treatment*. 2015

Markkula, A. et al. IL6 genotype, tumour ER-status, and treatment predicted disease-free survival in a prospective breast cancer cohort. *BMC Cancer*. 2014

Pamphlet

Download the CREATE Health Pamphlet at http://www.createhealth.lth.se/fileadmin/create_health/pdf/CREATE_Health_2011.pdf or send a mail to Ulrika.Andreasson@immun.lth.se for a hard copy.



CREATE Health on

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