

Personal data

Full name:

Uffe Bernchou

Date of birth:

May 8, 1978

Citizenship:

Danish

Master's degree:

2005, Master of Science in Physics and Chemistry, University of Southern Denmark (SDU)

Ph.D. thesis:

2009, Ph.D. thesis in Physics with the title 'Investigation of the Lateral Structure of Model Membranes', SDU

Academic prizes and scholarships:

2013, Danish Society for Medical Physics Symposium Poster Prize, DKK 3,000.00

2004, The Oticon Foundation Scholarship, DKK 100,000.00

2002, Peter & Emma Thomsens legat, DKK 90,000.00

2001, Peter & Emma Thomsens legat, DKK 80,000.00

Clinical education and specialist authorization:

2017, Medical physics expert within radiation oncology

2012, Certification as medical physicist within radiotherapy

Professional experience

2018-03-01 to present:

Associate Professor, Department of Clinical Research, SDU, Denmark

2009-06-15 to present:

Medical Physicist, Laboratory of Radiation Physics, Department of Oncology, Odense University Hospital (OUH), Denmark

2015-03-01 to 2018-02-28:

Assistant Professor, Department of Clinical Research, SDU, Denmark

2012-08-01 to 2014-07-31:

Postdoc, Department of Clinical Research, SDU

2007-03-01 to 2007-07-31:

Visiting Scientist at the Department of Cell and Developmental Biology, University of North Carolina at Chapel Hill, NC, USA

2005-09-01 to 2009-06-30:

Ph.D. student, Institute of Physics and Chemistry, SDU

Previous areas of research

Scientific profile:

My research is mainly focusing on improving the outcome in radiotherapy treatment of cancer patients using an image-based approach. Especially the development of quantitative assessment and early prediction of adverse effects of radiotherapy through advanced image analysis and statistical modelling has been a main driver for me. My expertise lies within the fields of radiotherapy dose planning, modelling of treatment outcome, and digital image analysis including a deep understanding of deformable image registration, image tracking, cone beam CT imaging, as well as an increasing knowledge of magnetic resonance imaging.

Research communication:

H-index of 11 and cited 391 times (public profile on Google Scholar, June 7, 2018)

17 published full papers or letters (8 as first and 2 as last author)

10 of these papers were published during the last 5 years (4 as first and 2 as last author)

1 general article in a Danish journal as first author

3 invited talks (1 in Denmark and 1 international)

22 published conference abstracts at international meetings (8 as first and 1 as last author). One of the abstracts was among the five highest scored out of 600 physics abstracts at the 3rd ESTRO forum in 2015.

Research supervision

Currently enrolled students:

1. Rasmus Lübeck Christiansen, PhD project, Clinical potential of radiotherapy plan adaptation using an MR accelerator. Main supervisor: Uffe Bernchou. Co-supervisors: Carsten Brink and Olfred Hansen

2. Christian Rønn Hansen, PhD project, Data mining in radiotherapy of Head & Neck and Lung Cancer patients. Main supervisor: Carsten Brink. Co-supervisors: Olfred Hansen, Uffe Bernchou, Jesper Grau Eriksen, and David Ian Thwaites

3. Kasper Rørdam Jensen, PhD project, Improved Cone Beam image quality – a way to improve radiotherapy. Main supervisor: Carsten Brink. Co-supervisors: Olfred Hansen and Uffe Bernchou

Students supervised to completion:

1. Thomas Lemming Jacobsen, 2016, MSc project, Analysis of PET-Images Recorded Before Treatment to Validate a Possible Association between Tumor Texture and Local Tumor Control after Radiotherapy of Non-Small Cell Lung Cancer Patients. Main supervisor: Adam Cohen Simonsen. Co-supervisors: Carsten Brink, Uffe Bernchou, and Poul-Erik Braad.

2. Kasper Rørdam Jensen, 2015, MSc project, Investigation of radiation induced ventilation changes for lung cancer patients. Main supervisor: Adam Cohen Simonsen. Co-supervisors: Carsten Brink, and Uffe Bernchou

Articlereviewing:

Peer reviewer for International Journal of Radiation Oncology Biology Physics, Radiotherapy & Oncology, Acta Oncologica, Physics in Medicine and Biology etc.

Research grants

2017, Olfred Hansen, Carsten Brink, Uffe Bernchou, Jesper Grau Eriksen, and David Ian Thwaites, Understanding and reducing radiotherapy induced side effects using Big Data, The Danish Cancer Society, DKK 1,080,000.00

2016, Christian Hansen, Carsten Brink, Jesper Grau Eriksen, Olfred Hansen, Uffe Bernchou, Data mining in radiotherapy of Head & Neck and Lung Cancer patients, Dansk Kræftforsknings Fond, DKK 225,000.00

2015, Carsten Brink, Olfred Hansen, Uffe Bernchou, and Kasper Rørdam Jensen, Optimizing lung cancer radiotherapy by individual assessment of radiation sensitivity, The Danish Cancer Society, DKK 1,500,000.00

2007, The Danish Agency for Science, Technology and Innovation EliteForsk Travel Grant, DKK 250,000.00