

CURRICULUM VITAE - JONATHAN R. BREWER, Ph.D

PERSONAL DATA

Born: 13 February 1975, Belfast, Ireland
Nationality: American and British

CONTACT INFORMATION

Department Biochemistry and Molecular Biology,
University of Southern Denmark,
Campusvej 55, 5230 Odense M,
Denmark

Phone: +45 65503505
Email: brewer@bmb.sdu.dk

EDUCATION

Ph.d. in Biophysics, University of Southern Denmark, **2004-2007 October 23rd**
M.Sc. (cand.scient.) in physics and math, University of Southern Denmark, **2000-2003**
Bachelor in Physics, Odense University,, **1996-2000**

ACADEMIC APPOINTMENTS

Associate professor, University of Southern Denmark **2016-**
PI of the Advanced Bioimaging Group at SDU **2013-**
Adjunkt, University of Southern Denmark **2013-2016**
Academic Staff, University of Southern Denmark, **2009-2013**
Postdoc, University of Southern Denmark. **2007-2009**
Junior Researcher, University of Southern Denmark. **2004-2007**
Visiting Junior Researcher, Università di Siena, **2003**

RESEARCH INTERESTS

My main areas of expertise are in bioimaging, biophysics, optics and nanotechnology. In practice I work with development, implementation and use of advanced microscopy techniques such as, Multiphoton laser scanning microscopy, Second harmonic generation microscopy, Polarization microscopy, Florescence lifetime imaging (FLIM), Fluorescence correlation spectroscopy (FCS) and Stimulated Emission Depletion microscopy (STED) and Coherent anti-stokes raman microscopy CARS. I have designed and built several state of the art multiphoton laser scanning microscopes. In my research I employ the different techniques combined with my background in optics and physics to study physical properties of for example artificial membranes, cells, skin tissue, muscle and nanofibers. Recently my research has been focused on developing methods to perform characterize and measure diffusion in human skin. This work has led to publications in top journals in the fields of Dermatology and Otolology.

DaMBIC: I have been one of the driving forces behind developing the Danish Molecular Biomedical Imaging Center (DaMBIC), into an imaging facility of a high international standard. DaMBIC hosts several state of the art Bioimaging techniques which are unique in Denmark. I have been, and am responsible for the implementation and operation of these techniques. Together with the newly opened Villum center for bioanalytical sciences DaMBIC represents an infrastructure investment in bioimaging equipment of over 30 million DKK.

GRANTS

SDU eScience centre 535,000DKK **2015**
Villum fonden project grant (coapplicant with Adam Cohen Simonsen) **2013**
FNU Forskningsprojekt 1 (coapplicant with Adam Cohen Simonsen) **2013**
SDU2020 grant 9,000,000DKK (coapplicant with Jakob Kjelstrup-Hansen) **2013**
VILLUM FONDENs Young Investigator grant 3,600,000DKK **2013**
Carlsberg project grant 600,000DKK **2012**
Travel grant **2011**
Lundbeck fonden, postdoc grant 940,000 DKK **2007**

I have participated in at least 25 other grant applications to private foundations, public research councils and the European Union.

TEACHING

At present I am responsible for a masters course “Advanced microscopy techniques” and the international PhD course “Biophotonics”. I have initiated and developed these two courses. In them I present the bioimaging techniques which I have built up over the last 10 years.

I am co responsible for bachelor level course “Basic Biochemistry”. I have also lectured in courses on “Bioanalytisk instrumentering”, “Avancerede spektroskopiske teknikker”, Laserfysik og spektroskopi, Classical mechanics and Biology at the interface. Furthermore I am involved in various outreach activities where I have given lectures for groups of high school teachers and also for high school pupils both at SDU and at high schools.

MANAGEMENT, AND BOARD MEMBERSHIPS

Member of the Ph.D.- study committee for the faculty of science and technology 2004-2007

Member of undervisnings udvalget for BMB 2014-

Laserlab.dk. Head of committee for Laser microscopy 2014-

Bioimaging Denmark. Member of board 2016-

Director of Danish Molecular Biomedical Imaging Center DaMBIC 2016-

4th LFD Workshop in Advanced Fluorescence Imaging and Dynamics 2008

PhD supervisor training course at SDU 2012.

Universitetspædagogikum at SDU 2013

Projektleddelse for Forskere, modul 1 at SDU 2013

SDU's Lederintroduktionsprogram 2014

COURSES

SUPERVISION

PhD students: Jonas Jeppesen (Co-supervisor with Adam C. Simonsen 2014-)
Bjarne Thorsted (2016-
Zachary Glover (2016-
PostDocs: Jes Dreier 2013-
Till Leißner 2014-

Masters Students: 9

Bachelor Students: 11

Project students: 7