Curriculum Vitae
Rudolf Oldenbourg
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Senior Scientist
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Education and Postdoctoral Training

Diplomphysiker (Master in Physics), Technical University, Munich, Germany, 1976
Max-Planck Fellowship for graduate work at the High Field Magnet Lab, Grenoble, France, 1977-1981
Ph. D., University of Konstanz, Konstanz, Germany, Physics, 1981
Advisor: Klaus Dransfeld, Director at MPI for Solid State Research in Stuttgart and Grenoble
Thesis: Elastic and Quasielastic Light Scattering from Magnetically Oriented polyelectrolytic rods, 1981

Professional Positions

1982-1983, Postdoctoral Research Associate, University of Konstanz, Konstanz, Germany
1983-1984, Postdoctoral Research Associate, Brandeis University, Waltham, MA
1984-1989, Assistant Professor of Physics, Brandeis University, Waltham, MA
1989-1993, Assistant Scientist, Marine Biological Laboratory, Woods Hole, MA
1994-2001, Associate Scientist, Marine Biological Laboratory, Woods Hole, MA
2002-present, Senior Scientist, Marine Biological Laboratory, Woods Hole, MA
2007-2017, Professor of Physics (MBL), Brown University, Providence, RI
2012-2013, Associate Director, Cellular Dynamics Program, MBL
2013-2014, Director, Cellular Dynamics Program, MBL

Honors and Awards

Invited Talks, past five years (chronological order)

2014 Jan.	MPI-CBG, Dresden, Germany
2014 Jan.	Institute of Neuroscience and Medicine, Jülich, Germany
2014 March	Polarimetry Workshop, Lorentz Center, Leiden, The Netherlands
2014 May	NSF IDBR Program Workshop, Washington DC
2014 Oct.	MBL-UChicago Workshop Updating Cowdry, Woods Hole MA
2014 Oct.	Pharmaceutical Sciences, University of Michigan
2014 Oct.	Institute of Molecular Engineering, University of Chicago
2015 Feb.	Research Computing Center, University of Chicago
2015 Feb.	Cummings Life Sciences Center, University of Chicago
2015 March	Bell Center Seminar Series, MBL
2015 Aug.	Workshop Escaping Flatland: Imaging biological architecture and events in 3 dimensions, MBL
2015 Oct.	Institute for Life Sciences , University of Southampton, England
2015 Nov.	Molecular Imaging Center Annual Meeting, National Taiwan University, Taipei, Taiwan
2017 Nov.	Stanford University, Stanford, CA
2017 Nov.	University of California Berkeley, Berkeley, CA
2017 Nov.	University of Southern California, Los Angeles, CA
2019 Feb.	Monash University, Melbourne, Australia
2019 March	Light Microscopy Australia LMA2019 conference, March 6th-8th, in Brisbane, Australia
2019 May	Brookhaven National Lab, Upton, NY
2019 May	Exxon Mobile research and Engineering, Annandale, NJ
2019 Sept.	Microsoft Research, Cambridge, England, UK
2019 Oct.	Conference “Seeing is Believing”, EMBL Heidelberg, Germany
2019 Oct.	U. of Massachusetts Amherst, Biology Department, Amherst, MA

Service on National Committees and Institutional Boards

1996-present, Ad-hoc Member of NIH and NSF Bioengineering and Biophysics Review Panels

2004-2005, Founding Member of the NIH Microscopic Imaging Study Section

Service on MBL Committees

1996-1999, Elected member of the Scientific Steering Committee of the MBL
2004-2010, Elected member of the Science Council of the MBL

Editorial Boards

Ad hoc reviewer for *Nature, Proceedings of the National Academy of Sciences, Biophysical Journal, IEEE Transactions, Molecular Biology of the Cell, Applied Optics, Optics Express, and others*

Teaching

Annual lectures, demonstrations, lab tours on polarized light microscopy in MBL Courses
2008 Jan. April, Optics Workshop, MBL
2009, Sept – Dec., Brown University, Engineering Dept., ENGN 1930B Biophotonics
2009, Jan. - May, Brown U., Physics Dept., PHYS 1970B Introductory Optics, developed new course
2009 March 1-7, Microscopy Course, National Center for Biological Sciences in Bangalore, India
2013, Sept – Dec., Brown University, PHYS 1970B Topics in Optics Course, built on Intro. Optics of 2009
2021, March - April, University of Chicago, Physics 124, Optics for biology majors

Patents

1996, Polarized Light Microscopy. US Patent, Number 5,521,705.
2002, Retardance Measurement Method. US Patent, Number 6,501,548.
2005, Enhancing Polarized Light Microscopy. US Patent, Number 6,924,893.
2006, Instantaneous Polarization Measurement System and Method. US Patent, Number 7,079,247.
2007, Retardance Measurement System and Method. US Patent, Number 7,202,950.
2007, Retardance Measurement System and Method. US Patent, Number 7,239,388.
2008, Retardance Measurement System and Method. US Patent, Number 7,372,567.

Training Record

Ph. D. students	Degree, Date, Field, Institution	Period in Oldenbourg Lab	Current Position
Teresa Ruiz	PhD, 1989, Physics, Brandeis U.	1986 – 1989	Professor, U. Vermont
Alex Valm	PhD, 2011, Biology, Brown U.	2007 – 2011	Assist. Prof., University at Albany
Mai Tran	PhD, 2017, Physics, Brown U.	2012 – 2017	returned to Vietnam
Talon Chandler	PhD, 2020,	2016 – 2020	grad student

Postdoctoral Fellows	Degree and Granting Institution		Current Position
Guang Mei	PhD	1992 – 1994	Oracle DBA
Kaoru Katoh	PhD, University of Tsukuba	1995 – 1997	Scientist, Neuroscience Research Institute, AIST, Tsukuba, Japan
Yuki Kagawa	PhD, Tokyo Institute of Technology	2003 – 2005	Nihon Kohden Corp., Tokyo, Japan
Naoki Noda	PhD, Tokyo University	2008 – 2011	Assist. Professor, Nihon University Tokyo, Japan
Shalin Mehta	PhD, National Univ. Singapore	2011 – 2014	Leader, Adv. Optical Microscopy Chan-Zuckerberg Biohub, San Francisco, CA
Mai Tran	PhD, Brown U. Providence RI	2017 – 2019	Assist. Prof., VinUniversity, Hanoi

Publications

Original Research Publications in Peer-Reviewed Journals: 88
Book Chapters: 7
Patents: 7