
BIOGRAPHICAL SKETCH

NAME Daniela Nicastro		POSITION TITLE Assistant Professor	
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Ludwig-Maximilians University, Munich, Germany	Dipl. Biol.	1995	Biology
Ludwig-Maximilians University/ Max-Planck-Institute for Biochemistry, Munich, Germany	Ph.D.	2000	Biology
Max-Planck-Institute for Biochemistry, Munich, Germany	Postdoc	2000-2001	Struct. Biology
University of Colorado at Boulder, CO	Postdoc	2001-2006	Struct./Cell Biology

A. POSITIONS AND HONORS

Research and Employment

- 2000-2001 Postdoctoral research with Dr. Wolfgang Baumeister, Max-Planck-Institute for Biochemistry, Munich, Germany
- 2001-2006 Postdoctoral research with Dr. Richard J. McIntosh, Univ. of Colorado, Boulder, CO
- Sept. 2006 - Assistant Professor of Biology, Rosenstiel Basic Medical Sciences Research Center, Brandeis University, MA

Honors:

- 1996-1998 Graduate scholarship for Junior Scientists by the Ludwig-Maximilians-University and Bavaria, Germany.
- 1998-2000 Graduate scholarship from the Max-Planck-Gesellschaft, Germany.
- 2000-2001 Postdoctoral scholarship from the Max-Planck-Gesellschaft, Germany.
- 2007 Pew Scholar

Professional

- 2004 Reviewer of grant proposal for NSF
- 2005 Reviewer of article submitted to JSB, and reviewer of grant proposal for NSF
Reviewer of article submitted to JMB
- 2005 - Member: The American Society for Cell Biology
- 2007 Reviewer of article submitted to Nature;

Invited Talks and Session Organization:

- 2000 NIAMS/NIH, Bethesda, MD.
Zoological Colloquium, Munich, Germany.
International Conference of Molecular and Cell Biology, Jena, Germany.
- 2001 Tomography Colloquium, Amsterdam, Netherlands.
European Conference on Crystallography, Krakow, Poland.
Gordon Conference on Three Dimensional Electron Microscopy, Bristol, RI.
National Center for Microscopy and Imaging Research, San Diego, CA.
Boulder Laboratory for 3-Dimensional Electron Microscopy of Cells, Boulder, CO.

Wadsworth Center, Albany, NY.

- 2002 15th International Congress on Electron Microscopy, Durban, South Africa.
- 2003 Lecturer and Instructor for the Electron Tomography session of the “Practical Course in Molecular Microscopy” Workshop at the Scripps Research Institute, La Jolla, CA.
Lecturer and Instructor in the IMOD workshop, Boulder, CO.
Two talks at the XIX–Congresso da Sociedade Brasileira de Microscopia e Microanalise, Caxambu, Brasil.
Co-Chair of the Tomography Session at the Microscopy & Microanalysis Conference, San Antonio, TX.
Gordon Conference on Three Dimensional Electron Microscopy, New London, NH.
EMBL, Heidelberg, Germany
Brandeis University, Boston, MA
Electron Tomography Workshop at the EMBL, Heidelberg, Germany.
- 2004 Lecturer and Instructor in the IMOD workshop, Boulder, CO.
Third International Congress on Electron Tomography, Rensselaerville, NY.
International Workshop on Structural Analysis of Supramolecular Assemblies by Hybrid Methods, Lake Tahoe, CA.
University of California at Berkeley, CA.
- 2005 American Society for Cell Biology meeting, San Francisco, CA.
MRC Laboratory of Molecular Biology, Cambridge, UK.
International Workshop Dynein, Kobe, Japan.
University of Texas Medical School, Houston, TX.
University of Texas Medical Branch, Galveston, TX.
Microscopy & Microanalysis Conference, Honolulu, HI.
- 2006 Program committee member for the 4th International Congress on Electron Tomography, San Diego, CA.
High-pressure freezing conference in Dresden, Germany
Three talks and one tutorial at the Microscopy & Microanalysis Conference, Chicago, IL.
University of Toronto, Toronto, Canada.
Brandeis University, Boston, MA.
- 2007 Boston University, Boston, MA
Mini-Symposium on Molecular Machines, Albany, NY
Session Chair “*Isolated Proteins and Protein Filaments*” at the Gordon Research Conference on Three Dimensional Electron Microscopy, New London, New Hampshire
- Upcoming : FASEB Summer meeting “The Biology of Cilia & Flagella”
Session Chair of the Tomography Session at the Microscopy & Microanalysis Conference, Ft. Lauderdale, Florida.
Talks at the Microscopy & Microanalysis Conference, Ft. Lauderdale, Florida
Chair of the Minisymposium on “*Molecular Motors: Alone and in Groups*” at the 47th Annual Meeting of the American Society for Cell Biology (ASCB).

B. PUBLICATIONS:

- Nicastro D, Smola U, Melzer RR (1995) The antennal sensilla of the carnivorous "phantom" larva of *Chaoborus crystallinus* (DeGeer, 1776) (Diptera, Nematocera). *Canadian Journal of Zoology* 73: 15-26.
- Melzer RR, Diersch R, Nicastro D, Smola U (1997) Compound eye evolution: Highly conserved retinula and cone cell patterns indicate a common origin of the insect and crustacean ommatidium. *Naturwissenschaften* 84:542-544.
- Nicastro D, Melzer RR, Hruschka H, Smola U (1998) Evolution of small sense organs: sensilla on the larval antennae traced back to the origin of the Diptera. *Naturwissenschaften* 85: 501-505.
- Melzer RR, Sprenger J, Nicastro D, Smola U (1999) Larva-adult relationships in an ancestral dipteran: a re-examination of sensillar pathways across the antenna and leg anlagen of *Chaoborus crystallinus* (DeGeer, 1776) (Diptera, Chaoboridae). *Development, Genes and Evolution* 209: 103-112.
- Nicastro D, Frangakis AS, Typke D, Baumeister W (2000) Cryo-electron tomography of *Neurospora* mitochondria: three-dimensional organization and ultrastructure of whole ice-embedded organelles. *Journal of Structural Biology* 129: 48-56.
- Melzer RR, Nicastro D, Zimmermann T (2002) Functional morphology of sense organs and sensory receptors in the Diptera. *Mitt. Dtsch. Ges. Allg. Angew. Ent.* 13:299-302.
- Frangakis AS, Boehm J, Forster F, Nickell S, Nicastro D, Typke D, Hegerl R, Baumeister W (2002) Identification of macromolecular complexes in cryoelectron tomograms of phantom cells. *PNAS USA* 99:14153-14158.
- Medalia O, Weber I, Frangakis AS, Nicastro D, Gerisch G, Baumeister W (2002) Macromolecular architecture in eukaryotic cells visualized by cryoelectron tomography. *Science* 298:1209-1213.
- McIntosh R., Nicastro D, Mastrorade D (2005) New views of cells in 3D: an introduction to electron tomography. *Trends Cell Biol.* 15:43-51.
- Nicastro D, McIntosh J.R., Baumeister W (2005) 3D structure of eukaryotic flagella in a quiescent state revealed by cryo-electron tomography. *PNAS USA* 102:15889-94.
- Nicastro D, Schwartz C, Pierson J, Gaudette R, Porter M, McIntosh JR (2006) The molecular architecture of axonemes revealed by cryoelectron tomography. *Science* 313:944-8.
- Hoenger A and Nicastro D (2007) Electron Microscopy of Microtubule-Based Cytoskeletal Machinery. Chapter 17 in: *Cellular Electron Microscopy*; edited by J.R McIntosh; a series of: *Methods in Cell Biology*, Vol: 79: 437-62.
- Schwartz CL, Sarbash VI, Ataulakhanov FI, McIntosh JR, Nicastro D (2007) Cryo- fluorescence microscopy facilitates correlations between light and cryo-electron microscopy and reduces the rate of photobleaching. *J. Microsc.* 227: 98-109.
- Wirschell M, Nicastro D, Porter ME and Sale WS (2007) Structural basis for regulation of flagellar motility: organization of the "dynein regulatory complex", inter-dynein linkers and a network of axonemal kinases and phosphatases. In *The Chlamydomonas Sourcebook*, ed., G.B. Witman; (*in press*)