Columbia University, New York Department of Biological Sciences Howard Hughes Medical Institute

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Birth & Nationality

German; born 02.02.1967, Rotenburg an der Fulda, Germany

Education

1996-1999	Postdoctoral Fellow, Harvard Medical School/Massachusetts General Hospital, Boston; Advisor: Prof. Gary Ruvkun
1992-1995	Dr. rer. nat. (Ph.D) Molecular Biology, Max Planck Institute for Biochemistry, Martinsried & University of Bayreuth, Germany; Advisor: Prof. Axel Ullrich & Prof. Gerhard Krauss (incl. 1 year DAAD research fellowship at Sugen, Inc., Redwood City, CA)
1987-1992	Diploma Biochemistry (Diplom Studiengang Biochemie), Universität Bayreuth, Germany; Advisor: Prof. Gerhard Krauss
1990	Summer Research Internship at Columbia University, Dept. of Biological Sciences; Advisor: Prof. Alberto Mancinelli
1989	Research Internship at German Cancer Research Center (DKFZ) Heidelberg; Advisor: Dr. Hans-Dieter Royer

Professional Experience

2015-present	Full Professor at Columbia University, Department of Biological Sciences (primary affiliation) Additional affiliations: Member, Neurotechnology Center, Columbia University;
	Affiliate Member, Zuckerman Mind Brain Behavior Institute, Columbia University
2014-present	Full Professor, Department of Systems Biology, Columbia University Medical Center
2009-present	Full Professor, Department of Biochemistry and Molecular Biophysics, Columbia University
	Medical Center
2005-present	Investigator, Howard Hughes Medical Institute
2005-2009	Associate Professor (with tenure) in Department of Biochemistry and Molecular Biophysics,
	Columbia University Medical Center
1999-2005	Assistant Professor in Department of Biochemistry and Molecular Biophysics, Columbia
	University Medical Center, Co-Appointment in the Center for Neurobiology and Behavior

Awards and Honors

2018 2015 2014 2008 2001	Axel Ullrich Medal Jacob Javits Award in the Neurosciences Elected Fellow of the American Association for the Advancement of Science (AAAS) Harland Winfield Mossman Award in Developmental Biology McKnight Endowment for the Neurosciences Disease Award
2001	Rita Allen Foundation Scholar Junior Faculty Award
2001	Irma T. Hirschl Early Career Scientist Award
2000	Klingenstein Fellow
2000	Alfred P. Sloan Research Fellow
2000	Searle Scholar Junior Faculty Award
2000	Basil O'Connor Scholar Award
1999	Human Frontiers in Science 10 th Anniversary Award
1998	Postdoctoral Fellowship Award from the MGH Fund For Medical Discovery
1997	Junior Investigator Award from the German Academy of Science "Leopoldina"
1996	Human Frontiers in Science Postdoctoral Fellowship
1994	Ph.D. scholarship from the DAAD for 1 year stay at Sugen, Inc.
1993-1995	Ph.D. scholarship from the "Studienstiftung des deutschen Volkes"
1989-1992	Undergraduate scholarship from "Studienstiftung des deutschen Volkes"

Teaching Activities

At Columbia University:

2017-present	Director & Lecturer Advanced Undergraduate course "Neurogenetics", Dept. of Biolog. Sciences
2016-present	Guest Lecturer Undergraduate course "Seminar in Modern Biology", Dept. of Biolog. Sciences
2008-present	Guest Lecturer Graduate course "Molecular Genetics", Dept. of Microbiology and Immunology
2001-present	Guest Lecturer Graduate course "Developmental Neurobiology", Dept. of Neuroscience
2013-2017	Guest Lecturer Graduate course "Advanced eukaryotic molecular genetics", Dept.Genetics&Dev.
2012	Guest Lecturer Graduate course "Genetics", Dept. of Biological Sciences
2009-2015	Guest Lecturer Graduate course "Professional Development for Neuroscientists", Dept. Neurosci.
2007-2011	Director & Lecturer of "Stem Cells and Cell Lineage Specification" course
2002-2015	Guest Lecturer Graduate course "Principles of Developmental Biology", Dept. of Genetics & Dev.
2001-2008	Co-Organizer Graduate Course "Developmental Neurobiology", Center for Neurobiol. & Behavior
1999-2007	Guest Lecturer Graduate course "Biochemistry and Molecular Biology of Eukaryotes", Dept. of
	Biochemistry & Mol. Biophysics

Outside Columbia University:

Guest lecturer in Cold Spring Harbor Course "Advanced Techniques in Molecular Neuroscience"
Guest lecturer MBL Course "Gene Regulatory Networks", Woods Hole
Guest lecturer EMBO Course "Developmental Neurobiology", King's College London
Guest lecturer in Lipari Summer School "Computational Biology", Italy
Guest lecturer in Postgraduate Course on Developmental Biology at the Universidad de Chile
Guest lecturer at New Jersey Governor's School in the Sciences, Drew University, NJ
Guest lecturer in "Developmental Neurosci.", Graduate course at New York University
Guest lecturer in "Developmental Neurosci.", Graduate course at Albert Einstein College of Med.
Guest lecturer in Cold Spring Harbor Course "C. elegans", Cold Spring Harbor
Guest lecturer in Cold Spring Harbor Laboratory, Course on "Adv. Genome Seq. Analysis"

Training Activities

Graduate students:

1999-present 28 past Graduate Students (5 currently Faculty Members; see below)

Postdoctoral fellows:

1999-present 27 past Postdoctoral Fellows (18 currently Faculty Members and/or Group Leaders; see below)

Program director NIH T32 Training Grant "Stem Cells and Cell Lineage Specification"
Training Mentor Harlem Children Society
Training Faculty of the Graduate Program in <i>Biological Sciences</i>
Training Faculty of the Graduate Program in Genetics and Development
Training Faculty of the Graduate Program in Neurobiology and Behavior

Trainees

a) Past Postdoctoral Fellows:

1) 1999-2000	Zeynep Altun (M.D., Ph.D. Cornell U), now Assistant Professor of Clinical Psychiatry, Columbia
	University Irving Medical Center
2) 1999-2002	Oscar Aurelio (Ph.D. UC Irvine), now Scientist, Focus Diagnostics, Inc.
3) 1999-2004	Paula Loria (Ph.D. Univ Chicago), now Associate Research Fellow at Pfizer
4) 1999-2005	Hannes Buelow (Ph.D. Max Delbrück Center, Berlin), now: Professor of Genetics and
	Neuroscience at Albert Einstein College of Medicine
5) 2003-2004	Erik Runko (Ph.D. AECOM), now Program Analyst, Extramural Research Program, NIH
6) 2003-2004	Yael Feinstein (Ph.D. Weizmann Institute, Israel), now: Head of Bio-optics facility, Hebrew Univ.
7) 2003-2006	Celia Antonio (Ph.D. EMBL, Heidelberg), now Clinical Study Manager at Novartis
8) 2004-2009	Claire Benard (Ph.D. McGill University), now: Assistant Professor at University Mass. Worcester
9) 2004-2009	Roger Pocock (Ph.D. Oxford University), now: Associate Professor, Monash University, Australia
10) 2005-2011	Vincent Bertrand (Ph.D. Univ. Marseille), now: Group Leader, University of Marseille
11) 2005-2011	Maria Doitsidou (Ph.D. MPI Biophys.Chemistry), now Group Leader (Chancellor's Fellow),
	University of Edinburgh, Scottland
12) 2005-2012	Richard Poole (Ph.D. UC London), now: Principal Research Associate (Wellcome Trust Senior
	Fellow) at University College, London
13) 2006-2011	Nuria Flames (Ph.D. Neurscience Institute Alicante, Spain), now: Group Leader, Institute of
	Biomedicine of Valencia, Spain
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14) 2006-2011 Baris Tursun (Ph.D. ZMNH, Germany), now: Group Leader at Max Delbrueck Center, Berlin

- 15) 2006-2012 Luisa Cochella (Ph.D. Johns Hopkins University), now: Group Leader IMP, Vienna, Austria
- 16) 2007-2009 Henry Bigelow (Ph.D. Columbia University), now: Computational Biologist, Amgen Inc.
- 17) 2008-2014 Ines Carrera (Ph.D. NYU), now: Assistant Professor, Universidad de la República, Montevideo, Uruguay
- 18) 2010-2012 Oded Rechavi (Ph.D. Tel Aviv University, Israel), now: Professor of Neurobiology, Tel Aviv University, Israel
- 19) 2010-2015 Paschalis Kratsios (Ph.D. EMBL, Germany/Italy), now: Assistant Professor, University of Chicago
- 20) 2010-2016 Kelly Howell (Ph.D. University of Pennsylvania), now: Scientist, Spinal Muscular Atrophy Foundation
- 21) 2010-2017 Marie Gendrel (Ph.D. Ecole National Superieure, Paris, France), now:Associate Professor, Ecole normale supérieure (ENS), Paris, France
- 22) 2012-2016 Meital Oren-Suissa (Ph.D. Technion, Haifa), now: Assistant Professor, Weizmann Institute, Israel
- 23) 2012-2017 Michael Hart (Ph.D. University of Pennsylvania), now: Assistant Professor, University of Pennsylvania School of Medicine, Department of Genetics
- 24) 2017-2018 Brett Marique (Ph.D., Washington University, St. Louis), ensuing position: Coordinator of Young Adult/Adolescent Services, NYC Health + Hospitals
- 25) 2009-2018 Esther Serrano (Ph.D. Centro de Biologia Molecular, Madrid, Spain), now: Cajal Fellow, Centro de Biologia Molecular Severo Ochoa, Madrid, Spain
- 26) 2011-2019 Laura Pereira (Ph.D. University of Illinois, Chicago), then Staff Scientist, NY Genome Center
- 27) 2012-2020 Abhishek Bhattacharya (Ph.D. Albert Einstein College of Medicine), ensuing position: Group Leader, National Center for Biological Science, Tata Institute of Fundamental Research, Bangalore

b) Past Graduate Students:

1) 1999-2005 Katherine Berry (Integrated Program), then postdoc at Harvard Medical School 2) 2000-2003 Ephraim L. Tsalik (MD/PhD Program), now Associate Professor of Medicine, Duke University 3) 2000-2003 Nehal Mehta (Biochem. Program), now Senior Manager, Business Development, Daiichi Sankyo 4) 2000-2004 Adam S. Wenick (MD/PhD Program), now Assistant Professor, Johns Hopkins University 5) 2000-2004 Sarah Chang (Neurobiology Program), now Vice President, Medical and Scientific Services; Infusion Communication 6) 2001-2005 Robert J. Johnston (Biochemistry Program), now Assistant Professor, Johns Hopkins University Thomas Boulin (Ecole Normale Supérieure, Paris, France), now Group Leader, Université Lyon 7) 2001-2005 8) 2003-2008 John Etchberger (Biochemistry Program), now Associate Director, Navigant Consulting, Inc. 9) 2004-2009 Christopher Ortiz (MD/PhD Program), now Resident at UCLA 10) 2004-2009 Dominic Didiano (Biochem. Program), now Research Assistant Professor, Vanderbilt University 11) 2004-2009 Eileen Flowers (Integrated Program), now Vice President, Biotech. Equity Research, Jefferies&Co 12) 2004-2010 Maggie O'Meara (Genetics Program), now Postdoctoral Fellow at U.Minnesota 13) 2004-2010 Sumeet Sarin (Genetics Program), now Postdoctoral Fellow at Harvard University 14) 2005-2010 Andrew Goldsmith (Genetics Program), now Senior Manager, Competitive Intelligence at Pfizer 15) 2006-2010 Enkelejda Bashllari (Integrated Program), now Co-Founder, Raw is Everything 16) 2007-2013 Heidi Smith (Biology Program), now Postdoctoral Fellow at University of Texas 17) 2008-2013 Feifan Zhang (Biology Program), now Biostatistician, Cardiovascular Research Foundation 18) 2009-2014 Patricia Gordon (Biochemistry Program), now Postdoctoral Fellow at University College London 19) 2009-2014 Gregory Minevich (Pathology Program), now CEO, Co-Founder, Bering 20) 2009-2015 Nikolaos Stefanakis (Biology Program), now Postdoctoral Fellow at Rockefeller University 21) 2010-2016 Tulsi Patel (Genetics Program), now Postdoctoral Fellow at CUMC 22) 2011-2016 John Kerk (Neuroscience Prg.), now Postdoctoral Fellowship Program, Regeneron, Inc. 23) 2011-2016 Peter Weinberg (Biological Sciences Program), now: Analyst, inThought Research 24) 2011-2018 Dylan Rahe, Biological Sciences Prg., now Postdoctoral Fellow at New York University 25) 2011-2018 Lori Glenwinkel, Biological Sciences Prg.

Institutional Committees

2015-2018 2011-2012 2010	Member of Search Committee Junior Faculty Recruitment for Department of Biological Sciences Member of Search Committee Junior Faculty Recruitment for Columbia Stem Cell Initiative Member of Search Committee for Chairman, Ophthalmology Department
2007-2011	Ad hoc member of Tenure Advisory Committee
2006-2007	Member of Search Committee Junior Faculty Recruitment for Genetics Department
2006-2007	Member of Search Committee Junior Faculty Recruitment for Psychiatry Department
2005-2006	Chair, Search Committee Junior Faculty Recruitment for Biochemistry Department
2004-2011	Chair of the Graduate Admission Committee for the Graduate Program in Biochemistry
2001-2011	Member of Graduate Admission Committee for the Graduate Program in Neuroscience

Editorial Activities

<u>Present:</u>	
2012-present	Reviewing Editor, <i>eLife</i>
2009-present	Editorial board of Current Biology
2008-present	Associate Editor; then Senior Editor & Reviews Editor, <i>Genetics</i> (Official journal of the Genetics Society of America)
2007-present	Editorial board of Developmental Biology (Official journal of Society for Developmental Biology)
2006-present	Editorial board of Neural Development
2006-present	Editorial board of <i>Mechanisms of Development</i> (Official Journal of the International Society of Developmental Biologists) & its sister journal <i>Gene Expression Patterns</i>
2003-present	Editorial board of <i>Development</i>
2001-present	F1000Prime Faculty member
<u>Past:</u>	
2018	Guest Co-Editor special issue Current Opinions in Neurobiology "Neuronal Identity"
2012-2019	Associate Editor, Wiley Interdisciplinary Reviews (WIREs): Developmental Biology
2012-2013	Associate Editor, Neural Development
2009-2017	Editor, WormMethods
2009-2015	Editorial board of <i>Developmental Dynamics</i> (Journal of the American Association of Anatomists)
2009	Guest Co-Editor special issue Current Opinions in Neurobiology "Development"
2009	Guest Editor special issue Current Topics in Dev. Biol. "Development of Neural Circuitry"
2005	Editor, WormBook, Gene Expression Section
2002	Guest Editor special issue Journal of Neurobiology "Genes and Behavior"
Boards	

2020-2023	Elected Board member Genetics Society of America (GSA)
2011-present	Scientific Advisory Board WormBase
2016-2020	WormBoard, officer
2017	External Advisory Board "Developmental Genetics" graduate program, NYU
2015	Scientific and Clinical Steering Committee New York Genome Center
2011	Advisory Board "European Neuroscience Institute" Göttingen
2010	Harlem Children Society's Executive Advisory Committee
2008-2014	Elected Board member of Society for Developmental Biology (Northeast Represent.; two terms)

Professional Society Memberships

American Association of the Advancement of Sciences (Elected Fellow) Genetics Society of America Society for Developmental Biology Society for Neuroscience

Meeting Organization

2019	Co-Organizer (with D. Arendt and others) EMBO meeting "Evolution of Cell Types"
2018	Co-Organizer (with K. Gunsalus and others) NYU Abu Dhabi Parasitic Nematode Workshop
2016	Co-Organizer (with S. Jarriault) Fondation des Treilles meeting "Plasticity of cellular identity"
2013	Co-Organizer (with M. Halpern) Satellite Symposium "Making and breaking the left-right axis: Laterality in development and disease" (International Congress of Developmental Biology, 72nd Annual Meeting Society for Developmental Biology), Cancun, Mexico
2011	Co-Organizer (with M. Sundaram) 18 th International C. elegans meeting, Los Angeles
2011	Co-Organizer (with R. Kingston) Cell Press Conference "Epigenetics"
2006	Co-Organizer (with R. Parker) Mini-Symposium "RNA and Development" at Annual Meeting of American Society for Cell Biology
2005-2006	Co-Organizer RNAi Study Group NY Academy of Science

Patents

2006	U.S. Utility Patent # 7125976 "Method of screening for agents inhibiting chloride intracellular
	channels"

Grant support

<u>Active</u> :	
2000-present	National Institutes of Health R01NS039996, P37 Merit Award in 2015
2005-present	Howard Hughes Medical Institute (next renewal 2021)
2017-2020	NSF NeuroNex "Live Imaging of the C.elegans Connectome" (NSF #1707401) (CoPI)

2017-2022	National Institutes of Health R01NS100547 "Discovery and analysis of the C. elegans neuronal
	gene expression network (CENGEN)" (CoPI)
2018-2022	National Insitutes of Health R01NS110391-01 "The neuropeptidergic connectome of
	Caenorhabditis elegans" (CoPI)
2019-2021	National Insitutes of Health 1R21NS115442-01 "Transcriptional control of neuronal plasticity by
	daf-16/FoxO"
2019-2022	National Science Foundation (Collaborative Research in Computational Neuroscience)
	"Topological and Dynamical Structures of Brain Development and Sexual-Dimorphism in C.
	Elegans"
Past:	-
2018-2020	National Institutes of Health R21NS106909
2018-2020	National Institutes of Health R21NS106843
2016-2018	National Institutes of Health R21NS096343
2014-2017	National Institute of Health, BRAIN award U01MH105924
2004-2015	National Institutes of Health R01NS050266 (incl. 1 Supplement & 1 yr. no cost-extension)
2012-2014	CUMC Motor Neuron Center Pilot Grant
2012-2013	Helmsley Stem Cell Starter Grant
2011-2014	National Institutes of Health R21NS076191 Grant (incl. 1 yr. no cost-extension)
2010-2013	Muscular Dystrophy Association Research Grant
2011-2012	Michael J. Fox Foundation Rapid Response Award
2010-2011	CUMC Skin Disease Research Center Pilot Grant
2009-2011	National Institutes of Health R03NS067451 Grant
2009-2010	Michael J. Fox Foundation Rapid Response Award
2008-2010	National Institutes of Health R03NS064482 Grant
2005-2008	National Institutes of Health R03HD050334 Grant
2005-2008	Muscular Dystrophy Association Research Grant
2005-2007	National Institutes of Health R03NS052269 Grant
2001-2006	McKnight Endowment Fund for Neuroscience Brain Disorder Award
2001-2005	Rita Allen Foundation Fellowship
2001-2005	Irma T.Hirschl Trust
2000-2004	Searle Foundation
2001-2003	Muscular Dystrophy Association Research Grant
2000-2003	Klingenstein Foundation
2000-2003	March of Dimes Foundation Basil O'Connor Grant
2000-2003	Alfred P. Sloan Foundation
2001-2002	American Paralysis Association Research Grant
2000-2002	Whitehall Foundation Research Grant
2000	Bristol Myers Squibb Pilot Grant
1999-2000	Herbert Irving Cancer Center Squibb Pilot Grant
1999-2000	Culpeper Foundation Pilot Grant
1999-2002	Human Frontier Science Program Research Grant

Grant Review Panels

2017-2023 2015-present 2015	Permanent Member NIH study section "Synapses, cytoskeleton, trafficking (SYN)" Life Sciences Research Foundation postdoctoral fellowship review panel Review panel NYU Abu Dhabi (NYUAD) Center for Genomics and Systems Biology
2015	
	Chair of NIH study section "Neurogenesis and Cell Fate "(NCF)
2009	Spanish National Research Council (CSIC)
2009	Science Foundation Ireland (SFI)
2009	Simons Foundation
2008-2012	Permanent Member NIH study section "Neurogenesis and Cell Fate" (NCF); 2 years chair
2001-2008	Ad hoc reviewer for NIH study section Mol. Dev. Cell. Neuroscience (MDCN6), then NCF

Other review panels (ad hoc service):

- NIH (NDPR, NNB BSCT study sections)
- National Science Foundation (NSF)
- Human Frontiers in Science Program
- Medical Research Council, UK
- French Ministry of Research and Education
- Natural Environment Research Council (NERC), UK
- European Science Foundation
- United States/Israel Binational Science Foundation (BSF)

- Israeli Science Foundation (ISF)

- NYU Abu Dhabi Center for Genomics, External Review comm.
- Biotechnology and Biological Sciences Research Council (BBSRC), UK

Publication Peer review activities

- PNAS - Mol.Biol.Cell - J.Cell Sci. - FEBS Letters	Curr. Biol.GeneticsMech.Dev.BMC journals	 Nat. Genetics Development Genes & Dev Dev.Dyn. PloS Biology 	 Nat. Neurosci. EMBO J. Dev.Biol. Genome Biol. PLoS One 	 Nat. Methods J.Neurosci. J.Mol. Biol. Genome Res. PLoS Genetics 	 Mol.Cell - Dev. Cell Nat. Struct. Mol. Biol. Trends in Neurosci. Learning & Memory BioTechniques Nucleic Acids Res. others
- Dev.Neurobiol.	- Mol.Cell.Biol.	- Neural Dev.	- Genomics	- Gene	- others

Invited Talks

- 1. National Institute of Health, Laboratory of Mammalian Genes and Development, 02/1999
- 2. Rutgers University, Department of Molecular Biology & Biochemistry, 05/1999
- 3. Queens College, CUNY, Department of Biology, 09/1999
- 4. Annual Meeting of the Genetics Society, Munich, 10/1999
- 5. Genzentrum, Ludwig Maximilians Universität, München, Germany, 10/1999
- 6. Bio Center, Basel, Switzerland, 10/1999
- 7. Human Frontiers in Science Award 10th Anniversary Meeting, 12/1999
- 8. Albert Einstein College of Medicine, Department of Neuroscience, 12/1999
- 9. Genomic Development Biology Conference, USC, Los Angeles, 03/2000
- 10. Cold Spring Harbor Laboratory, Course on "Adv. Genome Seq. Analysis", 03/2000
- 11. NIH, Laboratory of Mammalian Genes & Development, Airlie House Retreat, 05/2000
- 12. New York University Medical Center, Skirball Institute, Dev.Neuro. Program., 06/2000
- 13. International Society for Dev. Neuroscience, Annual Meeting, Heidelberg, 06/2000
- 14. Exelixis, Inc. San Francisco, 03/2001
- 15. Society for Developmental Biol., North-East section meeting Woods Hole, 04/2001
- 16. École Normale Supérieure, Paris, 05/2001
- 17. Weizmann Institute, Department of Cell Biology, Rehovot, 05/2001
- 18. Max Planck Institute for Molecular Genetics, Berlin, 02/2002
- 19. Society for Developmental Biol., North-East section meeting Woods Hole, 04/2002
- 20. Human Frontiers Science Program, Annual Meeting, Ottawa, 06/2002
- 21. Cold Spring Harbor Course "C. elegans", 08/2002
- 22. Stowers Institute, Kansas City, 11/2002
- 23. Harvard Medical School, Dept. Neurobiology, 12/2002
- 24. Boston University School of Medicine, Dept. Mol. Cell. Biol., 01/2003
- 25. Mass. General Hospital, Dept. Mol. Biol., Boston, 01/2003
- 26. MRC Laboratory of Molecular Cell Biology, UC London, 02/2003
- 27. New York University, Department of Biology, 02/2003
- 28. University of Marseille, IBDM, Marseille, 03/2003
- 29. Searle Scholar Annual Meeting, Chicago, 04/2003
- 30. McKnight Foundation, Annual Meeting, Aspen, 06/2003
- 31. Rockefeller University, 06/2003
- 32. Max Planck Institute for Medical Research, Heidelberg, 07/2003
- 33. Institute for Molecular Pathology (IMP), Vienna, 09/2003
- 34. EMBO workshop "Assembly of Neural Circuits" Varenna, Italy, 09/2003
- 35. Johns Hopkins School of Medicine, Dept.Neurosci., 10/2003
- 36. Max Planck Institute for Biochemistry, Martinsried, 11/2003
- 37. NYU Medical Center, Skirball Institute, Dev.Genetics program, 11/2003
- 38. Vanderbilt University Medical Center, Dept. Cell Dev. Biol., 12/2003
- 39. Central European C. elegans meeting, Basel, 01/2004
- 40. CSH Meeting "Systems Biology Genomic Approaches to Transcriptional Regulation", 03/2004
- 41. University of Oregon, Institute for Neuroscience, Eugene, 03/2004
- 42. Keystone Meeting "siRNAs and miRNAs", 04/2004
- 43. Gordon Conference "Basement Membranes", 06/2004
- 44. Israeli Society for Dev. Biology Meeting, Rehovot, 07/2004
- 45. CSH Meeting on Axon Guidance and Neural Plasticity (invited session chair), 09/2004
- 46. University of Chicago, Dev.Biol.seminar series, 10/2004
- 47. NY Academy of Science RNA silencing symposium , 10/2004

- 48. Yale University, Interdepartmental Neuroscience Program, 11/2004
- 49. University of Utah, Huntsman Institute, Dean's Lecture Series, 12/2004
- 50. Cornell University, Molecular Biology & Genetics, 12/2004
- 51. Genzentrum, Ludwig Maximilians Universität, München, Germany, 01/2005
- 52. MRC Center for Dev.Neurobiol, London, 02/2005
- 53. Rutgers University, Dept. Molecular Biology and Biochemistry, 02/2005
- 54. University of Calgary, Genes and Development Depart., 02/2005
- 55. University of Utah, Depart. Biol., 03/2005
- 56. Memorial Sloan Kettering Cancer Institute, Dev.Biol. Program, 03/2005
- 57. Cold Spring Harbor Meeting "Global Regulation of Gene Expression", 03/2005
- 58. Keystone Symposium Axonal Connections: Molecular Cues for Development and Regeneration, 03/2005
- 59. German society for developmental biology (GfE), Annual Meeting, Münster, Germany, 04/2005
- 60. Vollum Institute, 06/2005
- 61. Society for Developmental Biology Meeting, San Francisco, 07/2005
- 62. University of Massachusetts Medical School, Worcester, Program in Molecular Medicine, 10/2005
- 63. University of Miami Miller School of Medicine NeuroScience Program 11/2005
- 64. Annual Symposium, Center for Genomic Regulation, Barcelona, Spain, 11/2005
- 65. EMBL, Heidelberg, 12/2005
- 66. Universität Braunschweig, Genetics Department, 12/2005
- 67. Mount Sinai Medical School, Department of Molecular, Cell & Developmental Biology, 01/2006
- 68. Washington University, Dept. Anatomy and Neurobiology, St.Louis, 01/2006
- 69. UCSD Neuroscience Graduate Program, 01/2006
- 70. SUNY, Stony Brook, Department of Neurobiology and Behavior 02/2006
- 71. California Institute of Technology, Division of Biology, 02/2006
- 72. University of North Carolina, Neuroscience Center, Chapel Hill, 03/2006
- 73. Max Planck Institute for Developmental Biology, Tübingen 03/2006
- 74. Universität Freiburg, Germany, 03/2006
- 75. Society for Developmental Biology, Northeast section meeting, Woods Hole, 04/2006
- 76. University of Washington, Seattle, 05/2006
- 77. Cold Spring Harbor Meeting Quantitative Biology, Regulatory RNA, 05/2006
- 78. Zentrum for Molekulare Neurobiologie Hamburg, 09/2006
- 79. Max Planck Institut for Biophysical Chemistry, Göttingen, 09/2006
- 80. Hellenic Society for Neuroscience, Crete, 09/2006, Keynote Speaker
- 81. Stanford University, Department of Genetics, 10/2006
- 82. Case Western University, Department of Neuroscience, 11/2006
- 83. University of Albany, SUNY, Department of Biology, 11/2006
- 84. Universidad de Chile, Santiago de Chile, 11/2006
- 85. American Society for Cell Biology, invited Guest speaker & mini-symposium organizer, 12/2006
- 86. Hot Spring Harbor and 21. COE Symposium at Kyushu University, Japan, 12/2006
- 87. UCSF, Gladstone Institute of Neurological Disease, 01/2007
- 88. Kavli Institute for Theoretical Physics (KITP), 03/2007
- 89. Janelia Farm Research Conference "Neuronal Identity", 03/2007
- 90. Janelia Farm Research Conference "Neural Circuits and Behavior in C. elegans", 03/2007
- 91. Spring Symposium of the Molecular Biology Society of Japan, Kyoto, Japan, 04/2007
- 92. RIKEN, Center for Developmental Biology, Kobe, Japan, 04/2007
- 93. University of Iowa, Department of Molecular Physiology and Biophysics, 05/2007
- 94. Minisymposium "Protein Machines", Max Planck Institute for Biochemistry, Martinsried, 05/2007
- 95. Gordon Research Conference on Developmental Biology, 06/2007
- 96. National Institutes of Health/NHLB, Genetics and Developmental Biology Center, 09/2007
- 97. Cold Spring Harbor Laboratories, 10/2007
- 98. Yale University Medical School, Department of Genetics, 10/2007
- 99. Children's Hospital Boston, Program in Neurobiology, 10/2007
- 100. Samuel Lunenfeld Research Institute, Toronto, 11/2007
- 101. Cornell University Weill Medical College, Department of Cell and Developmental Biology 11/2007
- 102. Vanderbilt University, Department of Biological Sciences, 01/2008
- 103. NYU Skirball Institute, Developmental Genetics Program, 01/2008
- 104. Duke University, Department of Biology, 02/2008
- 105. National Academy of Sciences Sackler Colloquium Gene Networks in Animal Development and Evolution, 02/2008
- 106. Canadian Society for Developmental Biology meeting, 02/2008, Keynote Speaker
- 107. University of Wisconsin, Madison, Department of Biochemistry, 03/2008
- 108. New York Academy of Sciences Meeting "Neural Stem Cells: From Development to Function", 03/2008
- 109. Keystone Symposium, RNAi, MicroRNA, and Non-Coding RNA, 03/2008

- 110. Janelia Farm Research Conference "The Logic of Gene Regulation", 05/2008
- 111. Children's Hospital of Philadelphia/University of Pennsylvania, 05/2008
- 112. Society for Developmental Biology, Annual Meeting, Invited Plenary Speaker, 07/2008
- 113. Gordon Conference "Visual Development", Invited Speaker, 08/2008
- 114. Cold Spring Harbor Labs, C. elegans Course, 08/2008
- 115. Memorial Sloan Kettering, Developmental Biology Program, 09/2008
- 116. Brandeis University, Biology Department, 09/2008
- 117. University British Columbia, Vancouver, Life Science Center, 10/2008
- 118. Yale University, Department of Molecular, Cellular and Developmental Biology, 10/2008
- 119. Mt. Sinai School of Medicine, Dept. of Genetics and Genomic Sciences, 10/2008
- 120. Cincinnati Children's Hospital Research Foundation, Division of Developmental Biology, 11/2008
- 121. Keystone meeting Axonal Connections: Molecular Cues for Development and Regeneration, 02/2009
- 122. SUNY Downstate Medical Center, Neuroscience Seminar Series, 03/2009
- 123. University of California Berkeley, Department of Molecular & Cell Biology, 03/2009
- 124. Experimental Biology Meeting, New Orleans, Invited speaker 04/2009
- 125. Summer School "Lipari International School on RNAs : structure, function and therapy.", 06/2009
- 126. EMBO Practical Course 'Developmental Neurobiology from Worms to Mammals', MRC, London, 07/2009
- 127. International Society for Developmental Biology Congress, Edinburgh, Symposium speaker, 09/2009
- 128. International Max Planck Research School for Molecular Biology, Symposium speaker, 09/2009
- 129. Cell Press/IPSEN Foundation meeting "Biology in Balance", Buenos Aires, 10/2009
- 130. University of Illinois, Department of Cell and Developmental Biology. Urbana-Champaign, 10/2009
- 131. Stowers Institute, Kansas City, 11/2009
- 132. University of Texas, Institute of Cellular and Molecular Biology, Austin, 11/2009
- 133. Trinity College, Dublin, 12/2009
- 134. University of Pennsylvania, Neuroscience Program, 01/2010
- 135. 8th TLL Life Sciences Symposium (Singapore) "Neurodevelopment, Behavior and Disease", 02/2010
- 136. Max Planck Institute for Molecular Genetics, Berlin, 02/2010
- 137. University of California San Diego, Dept. Biology, 02/2010
- 138. Albert Einstein College of Medicine, Liver Center, 02/2010
- 139. Max Planck Institute for Biophysics, Göttingen, 03/2010
- 140. Institute of Molecular Biology (IMBA), Vienna, 03/2010
- 141. National Institute for Physiology, Okazaki, Japan, 04/2010
- 142. Drexel University, Biology Department 05/2010
- 143. University of Utah, Department of Genetics, Invited Speaker at Annual Retreat, 05/2010
- 144. New York University 9th annual Genomics Symposium, 05/2010
- 145. Universität Köln Symposium, Germany, 06/2010, Keynote Speaker
- 146. Universität Braunschweig, Germany, 06/2010
- 147. C. elegans Topic meeting "Neural Development, Function & Behavior", 06/2010, Keynote Speaker
- 148. Developmental Biology meeting Santa Cruz, Invited Plenary Speaker, 06/2010
- 149. Ludwig Maximilians Universität, München, Germany 07/2010
- 150. Gordon Conference Neuronal Development, Newport, 08/2010,
- 151. Society for Developmental Biology, Annual Meeting Albuquerque, 08/2010
- 152. Cold Spring Harbor Course C. elegans, 08/2010
- 153. Harvard University, Dept. Mol. Cell Biol., 10/2010
- 154. Janelia Farm Workshop "Development and Evolution of the Nervous System", 11/2010
- 155. University of Minnesota, Department of Genetics, Cell Biology, and Development, 02/2011
- 156. University of Michigan, 03/2011
- 157. University of Nice, Institute of Developmental Biology and Cancer Research, 03/2011
- 158. Centre for Organismal Studies (COS) Heidelberg, Germany 05/2011
- 159. ISREC, Swiss Institute for Experimental Cancer Research, Lausanne, 05/2011
- 160. Albert Einstein College of Medicine, Genetics Program Retreat, 06/2011, Keynote Speaker
- 161. 13th Annual Samuel Lunenfeld Research Institute Symposium on "Neurobiology", 06/2011, Keynote Speaker
- 162. 2011 European zebrafish meeting, Edinburgh, 07/2011, Keynote Speaker
- 163. French and British Societies for Developmental Biology, Nice, 09/2011, Keynote Speaker
- 164. Janelia Farm Conference " Control of Neuronal Identity", 10/2011, Keynote Speaker
- 165. Biomedical Symposium at St. Jude Children's Research Hospital, 10/2011
- 166. Invited guest speaker MBL Woods Hole course "Gene regulatory networks for Development" 10/2011
- 167. Cell Press Symposium " Epigenetics and the inheritance of acquired states", 11/11 (organizer and speaker)
- 168. Cornell University Weill Medical College, Neuroscience Program 12/2011
- 169. University of Pennsylvania, Mahoney Institute of Neurological Science Seminar, 01/2012
- 170. Seminar Stanford University, Frontiers in Bioscience Lecture series, 02/2012
- 171. Princeton University, Lewis-Sigler Institute, 02/2012

- 172. Gordon Research Conference "Cellular Reprogramming", Galveston, Texas 02/2012
- 173. University of California Los Angeles, Seminar in Neuroscience, 02/2012
- 174. Mount Sinai Friedman Brain Institute Translational Neuroscience Seminar Series, 03/2012
- 175. University of Montpellier, 04/2012
- 176. Young Researchers in Life Sciences Meeting, Paris, 2012, 05/2012, Keynote Speaker
- 177. UT Southwestern Neuroscience Seminar Series, 05/2012
- 178. Washington University, St. Louis, Dev. Biol. Retreat, 05/2012, Keynote Speaker
- 179. 10th Annual Meeting International Society for Stem Cell Research, Yokohama, Japan, 06/2012
- 180. Chang Gung University, Department of Biomedical Sciences, Taoyuan, Taiwan 06/2012
- 181. East Asia Worm meeting, Taiwan, 6/2012, Keynote Speaker
- 182. Arolla Conference, Cell and Developmental Systems, 8/2012
- 183. The MicroRNA Revolution, The 2012 Dr. Paul Janssen Award Symposium, 09/2012
- 184. University of Wyoming, Department of Molecular Biology, 9/2012
- 185. University of Wisconsin, RNA club, Madison, 10/2012
- 186. Georgia State University Brains and Behavior (Distinguished Lecture Series), 12/2012
- 187. Goethe University Frankfurt, 12/2012
- 188. UMDNJ-New Jersey Medical School, 01/2013
- 189. UCSF Neuroscience Program, 01/2013
- 190. California Institute of Technology, Division of Biology, 01/2013
- 191. Memorial Sloan Kettering Cancer Center (President's Lecture), 02/2013
- 192. Cold Spring Harbor Laboratory, "From Base Pair to Body Plan" (Celebration of the 60th anniversary of the discovery of the double helix), 02/2013
- 193. Nordic C. elegans Meeting, Copenhagen, 03/2013, Keynote Speaker
- 194. Developmental Biology Symposium, University of Helsinki, 03/2013
- 195. National Cancer Institute, Symposium "Epigenetics in Development", 04/2013
- 196. Society for Developmental Biology, Northeast Meeting, 04/2013
- 197. Albert Einstein College of Medicine, Dept. of Neuroscience, 04/2013
- 198. Annual Meeting International Society for Stem Cell Research, Boston, Satellite symposium "New Avenues for Brain Repair: Programming and Reprogramming the Central Nervous System", 06/2013
- 199. 17th International Congress of Developmental Biology, 72nd Annual Meeting Society for Developmental Biology, Satellite Symposium "Making and breaking the left-right axis: Laterality in development and disease", 06/2013
- 200. EMBO Practical Course 'Developmental Neurobiology from Worms to Mammals', UCL, London, 07/2013
- 201. MRC Laboratory of Molecular Biology (LMB), Cambridge, 07/2013
- 202. Harvard Medical School, Dept. of Neurobiology, 09/2013
- 203. Case Western Reserve University, Dept. of Neurosci., 09/2013
- 204. Harvard Medical School, Dept. of Genetics, 10/2013
- 205. Yale University RNA Center Retreat 11/2013, Keynote speaker
- 206. Scripps Research Institute, Dorris Neuroscience Center, San Diego, 11/2013
- 207. Cincinnati Children's Hospital Research Foundation, 12/2013
- 208. Max Planck Institute for Molecular Genetics, Symposium "Current Trends in Genetics", 01/2014
- 209. French Society of Developmental Biology (SFDB) & EFOR network meeting, Paris, 02/2014
- 210. NYU Abu Dhabi "Genomics and Systems Biology" Conference, Abu Dhabi, 02/2014
- 211. Carnegie Institution, Department of Embryology, Baltimore 03/2014
- 212. New York University, Department of Biology, 04/2014
- 213. Johns Hopkins University School of Medicine, Dept. of Neuroscience, 05/2014
- 214. Society for Developmental Biology, Mid-Atlantic Regional Meeting Baltimore, 05/2014, Keynote speaker
- 215. European Molecular Biology Laboratory (EMBL), Heidelberg (Distinguished Visitor Lecture Series), 06/2014
- 216. Exzellenzcluster NeuroCure at the Charité Universitätsmedizin in Berlin, NeuroColloquium, 06/2014
- 217. Gordon Research Seminar, Hong Kong, 06/2014, Keynote Speaker
- 218. Gordon Research Conference "Molecular and Cellular Neurobiology" Hong Kong, 06/2014
- 219. Annual Meeting Society for Developmental Biology, Seattle, 07/2014
- 220. Gordon Research Conference "Developmental Neurobiology", Newport, RI, 08/2014
- 221. National Institute of Biological Sciences (NIBS), Beijing, 09/2014
- 222. Institute of Biophysics, Chinese Academy of Sciences, Beijing, 09/2014
- 223. Shanghai Institute of Neuroscience, 09/2014
- 224. Cold Spring Harbor Asia Meeting "Neurobiology: Diverse species and conserved principles" Suzhou, China, 09/2014, **Keynote speaker**
- 225. Janelia Farm Seminar Series, 10/2014
- 226. Baylor College of Medicine, Department of Molecular and Human Genetics, 10/2014
- 227. Janelia Farm Research Conference "High-Throughput Sequencing for Neuroscience", 10/2014
- 228. Janelia Farm Research Conference "Neural Circuits Controlling Sexual Behavior", 11/2014
- 229. University of Pennsylvania, Department of Genetics, 01/2015

- 230. New York Area Worm Meeting, 01/2015
- 231. Princeton University, Department of Molecular Biology, 02/2015
- 232. New York University Honors Program Lecture, 04/2015
- 233. University of Massachusetts Medical Center, Department of Neurobiology, 04/2015
- 234. Imperial College London, MRC Clinical Sciences Centre, 05/2015
- 235. Cell Press Symposium "RNAs in the Nervous system", 07/2015
- 236. 4th Annual Sc2.0 and Synthetic Genomes Conference, NY Genome Center, 07/2015 (Panelist)
- 237. City College, New York, Department of Biology, 09/2015
- 238. Rockefeller University Postdoc Retreat 09/2015, Keynote speaker
- 239. Max Planck for Brain Research, Symposium "Molecular and Cellular Mechanisms of Homeostasis", 10/2015
- 240. Universität Köln, Germany, 11/2015
- 241. Utrecht University, Netherlands, 11/2015
- 242. University of Texas Health Science Center at San Antonio, Physiology Department, 11/2015
- 243. Fred Hutchinson Cancer Research Center, Seattle, 12/2015
- 244. Fondation des Treilles meeting "Plasticity of cellular identity", 05/2016
- 245. Genetics Society of America, The Allied Genetics Conference, Orlando, Florida, 07/2016, Keynote speaker
- 246. C. elegans Neuro (CeNeuro) Meeting, Nagoya, Japan, 07/2016, Keynote speaker
- 247. National Institute of Genetics, Mishima, Japan, 07/2016
- 248. Max Planck Institute for Biophysical Chemistry, Göttingen, 08/2016
- 249. Max Delbrück Center, Berlin, 08/2016
- 250. University of Chicago, Annual Neuroscience Retreat, 09/2016, Keynote speaker
- 251. Mt. Sinai School of Medicine, Department of Developmental and Regenerative Biology, 09/2016
- 252. Brown University, Department of Neuroscience, 10/2016
- 253. Brandeis University, Department of Biology, 10/2016
- 254. National Institutes of Health, Neuroscience Seminar Series, 11/2016
- 255. Georgia Tech, Neuro seminar series, 12/2016
- 256. Keystone meeting "Neurogenesis during Development and in the Adult Brain", Olympic Valley, 01/2017
- 257. University of Chicago, Program in Genetics, Genomics & Systems Biology, 03/2017
- 258. ABCAM meeting "Programming and Reprogramming the Brain", München, 04/2017
- 259. Ludwig Maximilians Universität München, Cell & Developmental Biology, 04/2017
- 260. NYU Developmental Genetics Program, 4/2017
- 261. Janelia Farm Conference "Control of Neuronal Identity II", 5/2017
- 262. Korean Society for Biochemistry and Molecular Biology, Annual Meeting, Busan, Korea 5/2017
- 263. Daegu Gyeongbuk Institute of Science and Technology (DGIST), Korea, 5/2017
- 264. Seoul National University, Korea, 5/2017
- 265. Society for Developmental Biology, Satellite Symposium "Neuro(R)evolution: New Approaches for Studying Neurodevelopment", 7/2017
- 266. Nature Conference "Neurogenetics", New York University, 8/2017
- 267. Woods Hole, Grass Fellows Invited Lecture, 8/2017
- 268. EMBO meeting "Gene regulatory mechanisms in neural fate decisions", Alicante, Spain, 9/2017
- 269. Conference "Reverse Engineering the Developing Brain", Campus Biotech, Geneva, 9/2017
- 270. Conference "Synapse formation, specification, and elimination: from molecules to circuits", International University of Andalusia (UNIA), 9/2017
- 271. Weizmann Institute, Israel, Life Sciences Colloquium, 10/2017
- 272. Washington University St. Louis, Department of Neuroscience, 11/2017
- 273. Northwestern University, Distinguished Lecture in Developmental and Regenerative Biology, 12/2017
- 274. New York University Abu Dhabi, Nematode Parasite conference, 01/2018 (Co-Organizer)
- 275. Max Planck Institute Göttingen, Fassberg Seminar, 02/2018
- 276. Harvard University, Department of Systems Biology, 03/2018
- 277. Society for Developmental Biology, Northeast Regional meeting, Woods Hole, Keynote Speaker, 04/2018
- 278. Northeastern University, Center for Complex Network Research (CCNR), 04/2018
- 279. Florida Worm Meeting, Keynote Speaker, 05/2018
- 280. UC San Diego Neurosciences Graduate Program Seminar Series, 05/2018
- 281. C. elegans Topic meeting "Development, Cell Biology & Gene expression", Barcelona, Keynote Speaker, 06/2018
- 282. Developmental biology minisymposium; Graduate School in Biomedicine and Biotechnology of the Tallinn University of Technology, in Tallinn, Estonia, 09/2018
- 283. Peking University (PKU), School of Life Sciences, Undergraduate Honor Program in Biology, China 10/2018
- 284. ShanghaiTech University, School of Life Science and Technology, Shanghai, China 10/2018
- 285. Neuroscience Program of Academia Sinica (NPAS), Taipei, Taiwan, 10/2018
- 286. TzuChi University, HuaLien, Taiwan, 10/2018
- 287. Society for Neuroscience Annual Meeting, San Diego, Special Lecture, 11/2018
- 288. Max Planck Institute für Biochemie, Martinsried, Axel Ullrich Lecture 11/2018

- 289. Universität Bayreuth, 11/2018
- 290. University of California, Los Angeles, Department of Biological Chemistry & Brain Research Institute, 12/2018
- 291. EMBO Workshop "Molecular neuroscience: From genes to circuits in health and disease", Bangalore, India, 02/2019
- 292. Tata Institute of Fundamental Research, Mumbai, India, 02/2019
- 293. University of Albany, Department of Biology, Rickmenspoel Lecture, 03/2019
- 294. Istituto di Bioscienze e Biorisorse Sezione di Napoli, Italy, 03/2019
- 295. Pasteur Institute, Department of Developmental Biology, 04/2019
- 296. University of Santa Barbara, MCB program (Student invitation), 05/2019
- 297. EMBO Workshop "Evolution of Cell types" (Co-Organizer), EMBL Heidelberg, Germany 05/2019
- 298. Institute of Neuroscience Alicante, 20th Anniversary Symposium, Spain, 07/2019
- 299. Rockefeller University's Neuroscience Seminar Series, 09/2019
- 300. Montefiore Medical Center Grand Rounds, 10/2019
- 301. Cell Symposium "Transcription in Evolution, Development, and Disease", Chicago, Keynote Speaker 10/2019
- 302. University of Illinois, Chicago, 10/2019
- 303. Developmental Biology Symposium, Graduate Student Alliance, University of Georgia, Keynote Speaker, 11/2019
- 304. "International Leaders in Neuroscience" Seminar at the Queensland Brain Institute, Brisbane, Australia, 11/2019
- 305. King Abdullah University of Science and Technology, Saudi Arabia, 01/2020
- 306. Yale University, Department of Neuroscience, 02/2020
- 307. TAGC 2020 (The Allied Genetics Conference), Washington DC 04/2020
- 308. Sars International Centre for Marine Molecular Biology, University of Bergen, Norway, 5/2020
- 309. First International Pristionchus Meeting, Tübingen, Germany, 07/2020
- 310. Institute for Molecular Pathology, Vienna, 10/2020
- 311. University of Connecticut Medical School, Department of Neuroscience, 10/2020
- 312. EMBO Conference "Neuroepigenetics", Heidelberg 11/2020
- 313. Washington University in St. Louis, Department of Genetics, 02/2021
- 314. University of Massachusetts Medical Center, Department of Neurobiology, 03/2021
- 315. American Society for Neurochemistry Annual Meeting, St. Charles, Presidential Lecture, 03/2021
- 316. Sydney Brenner Memorial Meeting, Cold Spring Harbor, 04/2021
- 317. Conference "Sexual dimorphism of neuronal circuits and behavior", Weizmann Institute, Israel, 04/2021
- 318. International C. elegans Meeting, Glasgow, Invited Plenary Talk, 06/2021

Publications

Reviews & Essays

1. **Hobert, O** and Ruvkun, G (1998)."A Common Theme for LIM Homeobox Gene Function Across Phylogeny ?" MBL & NASA Symposium on "Genetic Regulatory Networks in Embryogenesis and Evolution" *Biol. Bulletin* 195, 377-380.

2. Hobert, O and Ruvkun, G (1999) "Pax genes in Caenorhabditis elegans: A new twist" Trends Genet. 15, 214-216.

3. Hobert, O, Johnston, RJ and Chang, S (2002) " Left/right asymmetry in the nervous system: The *C. elegans* paradigm", *Nature Rev. Neurosci*, 3(8), 629-640

4. **Hobert, O** (2003) "Behavioral plasticity in *C. elegans*: Paradigms, Circuits, Genes" *J.Neurobiol* 54, 203-223 (special issue: *Genes and Behavior*) + Editorial Overview "Behavioral Genetics - The third century"

5. Hobert, O and Bülow, HE (2003) "Development and maintenance of neuronal architecture at the ventral midline of *C. elegans*" *Curr. Opin. Neurobiol* 13, 70-78 (Invited Review)

6. Rougon, G and **Hobert, O** (2003) "New insights into the diversity and function of neuronal immunoglobulin superfamily molecules" *Annu. Rev. Neurosci.* 26, 207-238 (Invited Review)

7. Hobert, O (2004) "Common logic of transcription factor and miRNA action" Trends Biochem Sci. 29(9), 462-468

8. Bülow, HE and **Hobert, O** (2006) "The Molecular Diversity of Glycosaminoglycans shapes Animal Development" *Annu. Rev. of Cell Dev. Biol.* 22, 375-407 (Invited Review)

9. Hobert, O (2006) "Architecture of a microRNA-controlled gene regulatory network that diversifies neuronal cell fates", *Cold Spring Harb Symp Quant Biol: Regulatory RNAs*, Volume 71, 181-188

10. Hobert, O (2008) "Gene regulation by transcription factors and microRNAs" Science 319, 1785-1786 (Invited Review)

11. Hobert, O (2008) " Regulatory logic of neuronal diversity: Terminal selector genes and selector motifs" *Proc. Natl. Acad. Sci.* USA 105(51):20067-71 (Invited Review)

12. Hobert, O (2010) "The impact of Whole Genome Sequencing on model system genetics: Get ready for the ride"

Genetics, 184: 317-319 (Perspective)

13. Bertrand, V and **Hobert, O** (2010) "Lineage programming : navigating through transient regulatory states via binary decisions" *Curr. Opin. Genet. & Dev* 20:362–368 (Invited Review)

14. Hobert, O, Carrera, I and Stefanakis, N (2010) "The molecular and gene regulatory signature of a neuron" *Trends Neurosci.*, 33, 435-445

15. Hobert, O (2011) "Maintaining a memory by transcriptional autoregulation" Curr. Biol. 21(4), R146-147 (Primer)

16. Flames, N and **Hobert, O** (2011) "Transcriptional Networks Determining Monoaminergic Fate" *Annu. Rev. Neurosci.* 34, 153-84 (Invited Review)

17. Hobert, O (2011) " Regulation of terminal differentiation programs in the nervous system" *Annu. Rev. Cell Dev. Biol.* 27, 681-696 (Invited Review)

18. Boulin, T and **Hobert, O** (2012) "From Genes to Function: The *C. elegans* Genetic Toolbox" *WIREs Dev. Biol.,* 1:114–137 (Invited Review)

19. Hobert, O (2014) " Development of left/right asymmetry in the *Caenorhabditis elegans* nervous system: From zygote to postmitotic neuron" *genesis* 52:528–543

20. Deneris, E and Hobert, O (2014) "Maintenance of postmitotic neuronal cell identity", Nature Neurosci. 17, 899-907

21. Arlotta, P and Hobert, O (2015) "Homeotic transformations of neuronal cell identities", Trends Neurosci. 38, 751-762

22. **Hobert, O** (2016) "A map of terminal regulators of neuronal identity in *C. elegans*", *WIREs Dev. Biol.* 5, 474-498 (Invited Review)

23. Hobert, O and Kratsios, P (2019) "Neuronal identity control by terminal selectors in worms, flies and mice" *Curr. Opin. Neurobiol.* 56:97–105 (Invited Review)

24. Leyva-Díaz, E, Masoudi, N, Serrano-Saiz, E, Glenwinkel : and **Hobert, O** (2020) "Brn3/POU-IV-type POU homeobox genes - paradigmatic regulators of neuronal identity across phylogeny" *WIREs Dev. Biol. in press*

Book chapters:

1. Westphal, H and **Hobert, O** (2001) "LIM homeodomain proteins" *Wiley Encyclopedia of Molecular Medicine*, John Wiley & Sons, Inc., p.1922-1925.

2. **Hobert, O** (2005) "Specification of the Nervous System" *WormBook*, ed. The *C. elegans* Research Community, WormBook, doi/10.1895/wormbook.1.12.1, http://www.wormbook.org

3. Boulin, T, Etchberger, J and **Hobert, O.** (2005) "Reporter gene fusions" *WormBook*, ed. The *C. elegans* Research Community, doi/10.1895/wormbook.1.106.1, http://www.wormbook.org

4. Hobert, O and Loria, PM (2005) "Uses of GFP in *C. elegans*" in "Green Fluorescent Protein: Properties, Applications and Protocols (Methods of Biochemical Analysis, Vol 47)" Chalfie and Kain (eds.), 2nd edition, Wiley

5. Benard, C and **Hobert, O** (2009) "Looking beyond development: maintaining nervous system architecture", *Curr. Top. Dev. Biol.* 87, 175-194

6. **Hobert, O** (2010) "Neurogenesis in the nematode *Caenorhabditis elegans*", *WormBook*, ed. The *C. elegans* Research Community, doi/10.1895/wormbook.1.12.2, http://www.wormbook.org.

Reprinted in: **Comprehensive Developmental Neuroscience** book series, edited by Pasko Rakic and John Rubenstein, Academic Press, 2013, *First Edition*

Updated and revised: "Neuronal identity specification in the nematode *Caenorhabditis elegans*", **Comprehensive Developmental Neuroscience** book series, edited by Pasko Rakic and John Rubenstein, Academic Press, 2020 *Second Edition*

7. Cochella, L and Hobert, O (2012) "MiRNAs in neuronal development", Curr. Top. Dev. Biol., 99:115-43

8. **Hobert, O** (2013) "The neuronal genome of *C. elegans*", *WormBook*, *WormBook*, ed. The *C. elegans* Research Community, doi/10.1895/wormbook.1.161.1, http://www.wormbook.org

9. **Hobert, O** (2016) "Terminal selectors of neuronal identity", *Curr. Top. Dev. Biol.* 116:455-75 (50th Anniversary Issue "*Essays on Developmental Biology*")

10. Vidal, B and Hobert, O (2017) "Methods to study nervous system laterality in the nematode *Caenorhabditis elegans*" in "Lateralized Brain Functions. Methods in Human and Non-Human Species" (Springer; Eds. Roger, LJ

and Vallortigara, G), page 591-608 (invited chapter)

11. Oren, M and **Hobert, O** (2017) "Sexual dimorphisms in the nervous system of the nematode *Caenorhabditis elegans*", in "**Principles of Gender-specific Medicine**", Academic Press (invited chapter)

Commentaries

1. **Hobert, O,** Hutter, H and Hynes, RO (2004) " The immunoglobulin superfamily in *Caenorhabditis elegans* and Drosophila melanogaster" *Development* 131, 2237-2238 (Commentary)

2. Hobert, O (2005) "MicroRNAs: All Gone and Then What?" Curr. Biol, 15(10), R387-389 (Invited Commentary)

3. Hobert, O (2007) "MicroRNAs playing a tune" Cell 131, 22-24 (Invited Commentary)

4. Bertrand, V and **Hobert, O** (2009) "Wnt asymmetry and the terminal division of neuronal progenitors", *Cell Cycle* 8, 1973-1974 (Invited Commentary)

5. Hobert, O (2010) "Enhancers stepping out of the shadow" Curr. Biol. 20, R697-699 (Invited Commentary)

6. Hart, MP and **Hobert, O** (2015) "Neurobiology: Dimorphic mystery neurons control sex-specific behavioral plasticity", *Curr. Biol.* 25, pR1170–R1172 (Invited Commentary)

7. Howell, K and **Hobert, O** (2016) "Small Immunoglobulin domain proteins at synapses and the maintenance of neuronal features", *Neuron* 89, 239-241 (Invited Commentary)

8. Vogt, M and **Hobert, O** (2017) "Olfactory Imprinting: A Worm's Memory of Things Past", *Curr. Biol.* 27, R1108–R1129 (Invited Commentary)

9. Hammarlund, M, **Hobert, O**, Miller 3rd, DM, Sestan, N (2018) "The CeNGEN project: The complete molecular and regulatory map of an entire nervous system" *Neuron* 99, 430-433

10. Kratsios, P and **Hobert, O** (2018) "Nervous system development: Flies and worms converging on neuronal identity control" *Curr. Biol.* 28, R1154-R1156 (Invited Commentary)

11. Wang, C and **Hobert, O** (2019) "Sex-specific pheromone responses in *C. elegans*" *EMBO Rep.* 20: e47599 (Invited Commentary)

Micropublications:

1. Bayer, EA and **Hobert, O** (2018) "A novel null allele of *C. elegans* gene *ceh-14*". **microPublication Biology**, https://doi.org/10.17912/G434-3D85

2. Bhattacharya, A and **Hobert, O** (2019) "A new anterior pharyngeal region specific fluorescent co-transformation marker" **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000084

3. Rahe, D, Carrera, I, Cosmanescu, F and **Hobert, O** (2019) "An isoform-specific allele of the *sax-7* locus" **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000092

4. Doitsidou, M, & Hobert, O (2019) "New alleles of the *lin-22*/Hairy bHLH transcription factor" **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000111

5. Curtis, L, Witte, H, Sommer, RJ and **Hobert, O** (2019) "An antibody staining protocol variation for nematodes that adds heat-induced antigen retrieval (HIAR)" **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000135

6. Minevich, G, Bernstein, A, Mei, K, Poole, RJ, and **Hobert, O** (2019) "Nibbling 405 kb off the X: Viable deletion alleles eliminating 50 protein coding genes, including a chromatin factor involved in neuronal development" **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000187

7. Pham, K and **Hobert, O** (2019) "Unlike Drosophila elav, the *C. elegans* elav orthologue *exc*-7 is not panneuronally expressed" **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000189

8. Aghayeva, U, Bhattacharya, A and **Hobert, O** (2020) "A panel of fluorophore-tagged *daf-16* alleles" **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000210

9. Hart, MP and **Hobert, O** (2020) "A missense mutation separates distinct functions of the Zic-family transcription factor REF-2 " **microPublication Biology**, https://doi.org/10.17912/micropub.biology.000232

Research papers:

1. Mancinelli, AL, **Hobert, O**, Nikas, G (1992) "*In vivo* Phytochrome-mediated perception of reflected light signals" *Photochem. Photobiol*. 5, 585-592.

2. Zeidler, R, **Hobert, O**, Johannes, L, Faulhammer, H, Krauss,G (1993) "Characterisation of two novel ssDNA-specific ARS-binding proteins from *S.cerevisiae*" *J. Biol. Chem*. 268, 20191-20197

3. **Hobert, O**, Jallal, B, Schlessinger, J, Ullrich, A (1994) "Novel signaling pathway suggested by SH3 domain-mediated p95^{Vav}/hnRNP-K interaction" *J. Biol. Chem.* 269, 20225-20228

4. **Hobert, O**, Schilling, J, Beckerle, M, Ullrich, A, Jallal B (1996) "SH3-dependent interaction of the Vav-proto-oncogene product with the focal adhesion protein Zyxin" **Oncogene** 12, 1577-1581.

5. **Hobert, O**, Jallal, B, Ullrich, A (1996) "Interaction of Vav with ENX-1, a putative transcriptional regulator of homeobox gene expression" *Mol. Cell. Biol.* 16, 3066-3073

6. **Hobert, O**, Sures, I, Ciossek, T, Fuchs, M, Ullrich, A (1996) "Isolation and developmental expression analysis of Enx-1, a novel mouse Polycomb-group gene" *Mech. Dev*. 55, 171-184

7. Su, I-H, Basavaraj, A, Krutchinsky, AN, **Hobert, O**, Ullrich, A., Chait, BT, Tarakhovsky, A (2003) "Ezh2 controls B cell development through histone H3 methylation and Igh rearrangement" *Nat. Immunol.* 4, 124-131 (recommended by Faculty of 1000)

Postdoctoral Fellow:

1. **Hobert, O**, Mori, I, Yamashita, Y, Honda, H, Ohshima, Y, Liu, Y. and Ruvkun, G (1997) "Regulation of interneuron function in the *C. elegans* thermoregulatory pathway by the *ttx-*3 LIM homeobox gene" *Neuron* 19, 345-357.

2. **Hobert, O**, D'Alberti, T, Liu, Y and Ruvkun, G (1998). "Control of neural development and function in a thermoregulatory network by the LIM homeobox gene *lin-11*" *J. Neuroscience* 18, 2084-2096.

3. Ruvkun, G and **Hobert, O** (1998) "The taxonomy of developmental control in *Caenorhabditis elegans*" *Science* 282, 2033-2041

4. **Hobert, O**, Moerman, DG, Clark, KA, Beckerle, MC and Ruvkun, G (1999) "A conserved LIM protein that affects muscular adherens junction integrity and mechanosensory function in *C. elegans*" *J. Cell Biol*. 144, 45-57

5. Hobert, O, Tessmar, K and Ruvkun, G (1999) "The *C. elegans lim-6* LIM homeobox gene regulates neurite outgrowth and function of particular GABAergic neurons " *Development* 126, 1547-1562

6. Hall, DH, Winfrey, VP, Blaeuer, G, Hoffman, LH, Furuta, T, Rose, KL, **Hobert, O** and Greenstein, D (1999) "Ultrastructural features of the adult hermaphrodite gonad of *C. elegans*: Relations between the germ line and soma" *Dev.Biol.* 212, 101-123

7. Sagasti, A, **Hobert, O**, Troemel, ER, Ruvkun, G. and Bargmann, C. (1999) "Alternative olfactory neuron fates are specified by the LIM homeobox gene *lim-4*" *Genes Dev*.13, 1794-1806

2001:

Prinicipal Investigator:

1. Altun-Gultekin, Z, Andachi, Y, Tsalik, E, Pilgrim, D, Kohara, Y and **Hobert, O** (2001) "A regulatory cascade of three homeobox genes, *ceh-10, ttx-3* and *ceh-23* controls cell fate specification of a defined interneuron class in *C. elegans*" *Development* 128, 1951-1969

2. Sarafi-Reinach, TR, Melkman, T, **Hobert, O** and Sengupta, P (2001) "The *lin-11* LIM homeobox gene specifies olfactory and chemosensory neuron fates in *C. elegans*" *Development* 128, 3269-3281

2002:

3. Aurelio, O, Hall, DH and **Hobert, O** (2002) "Immunoglobulin-domain proteins required for maintenance of ventral nerve cord organization" *Science* 295, 686-690 (featured in *J.Cell.Biol.*156, 588, *Science* 295, 599 and in Faculty of 1000)

4. **Hobert, O** (2002) "A rapid PCR fusion-based approach to create reporter gene constructs for expression analysis in transgenic *C. elegans*" *BioTechniques* 32, 298-300

5. Bülow, HE, Berry, KL, Topper, L, Peles, E and **Hobert, O** (2002) "Heparan sulfate proteoglycan dependent induction of axon branching and axon misrouting by the Kallmann syndrome gene *kal-1*" *Proc.Natl.Acad.Sci USA* 99, 6346-6351 (featured in *Neuron* 34, 675)

2003:

6. Aurelio, O, Boulin, T and **Hobert, O** (2003) " Identification of spatial and temporal cues that regulate postembryonic expression of axon maintenance factors in the *C. elegans* ventral nerve cord" *Development* 130, 599-610

7. Raich, WB, Moorman, C, Lacefield, CO, Lehrer, J, Bartsch, D. Plasterk, RHA, Kandel, EK and **Hobert, O** (2003) "Characterization of *Caenorhabditis elegans* homologs of the Down Syndrome candidate gene DYRK1A" *Genetics* 163(2), 571-580

8. Tsalik, EL and **Hobert, O** (2003) "Functional mapping of neurons that control locomotory behavior in *Caenorhabditis elegans*" *J. Neurobiol.* 56, 178-197

9. Loria, PM, Duke, A, Rand, JB and **Hobert, O** (2003) "Two neuronal, nuclear-localized RNA-binding proteins involved in synaptic transmission" *Curr.Biol.* 13, 1317-1323 (featured in *Nat.Rev.Neurosci.*4, 781)

10. Chang, S, Johnston, RJ and **Hobert, O** (2003)" A transcriptional regulatory cascade that controls left/right asymmetry in chemosensory neurons of *C. elegans*" *Genes Dev.* 17, 2123-2137

11. Tsalik, EL, Niacaris, T, Wenick, AS, Pau, K, Avery L and **Hobert, O** (2003) "LIM homeobox gene-dependent expression of biogenic amine receptors in restricted regions of the *C. elegans* nervous system" *Dev. Biol.* 263, 81-102

12. Berry, KL, Bülow, HE, Hall, DH and **Hobert, O** (2003) " A *C. elegans* CLIC-like protein required for intracellular tube formation and maintenance " *Science* 302, 2134-2137(featured in *Science* 302, 2077-2078 and Faculty of 1000)

13. Johnston, RJ and **Hobert, O** (2003) "A microRNA controlling left/right neuronal asymmetry in *Caenorhabditis elegans*" *Nature* 426, 845-849 (featured in Mini-review in *Nature Neurosci.* 7, 100-102; *Nat.Rev.Neurosci.* 5, 79; Faculty of 1000)

2004:

4. Bülow, HE and **Hobert, O** (2004) "Differential sulfations and epimerization define heparan sulfate specificity in nervous system development" *Neuron* 41(5), 723-736 (Mini-reviewed in *Neuron* 46, 169-72)

15. Loria, PM, Hodgkin J and **Hobert, O** (2004) "A conserved postsynaptic transmembrane protein affecting neuromuscular signaling in *C. elegans*" *J. Neurosci.* 24(9), 2191-2201 (recommended by Faculty of 1000)

16. Mehta, N, Loria, PM and **Hobert, O** (2004) "A genetic screen for neurite outgrowth mutants in *C. elegans* reveals a new function for the F-box ubiquitin ligase component LIN-23" *Genetics*166(3), 1253-1267

17. Bülow, HE, Boulin, T and **Hobert, O** (2004) "Differential functions of the *C. elegans* FGF receptor in axon outgrowth and maintenance of axon position" *Neuron* 42, 367-374

18. Bigelow, H, Wenick, AS, Wong, A and **Hobert, O** (2004) "CisOrtho: A program pipeline for genome-wide identification of transcription factor target genes using phylogenetic footprinting" *BMC Bioinformatics* 5, 27

19. Wenick, AS and **Hobert, O** (2004) "Genomic *cis*-regulatory architecture and *trans*-acting regulators of a single interneuron-specific gene battery in *C. elegans*" *Dev. Cell* 6, 757-770 (featured in Mol.Cell 14, 693-4)

20. Deng, X, Hofmann, ER, Villanueva, A, **Hobert, O**, Capodieci, P, Veach, DR, Yin, X, Campodonico, L, Glekas, A, Cordon-Cardo, C, Clarkson, B, Bornmann, WG, Fuks, Z, Hengartner, MO and Kolesnick, R(2004)"*Caenorhabditis elegans* ABL-1 antagonizes p53-mediated germline apoptosis after ionizing radiation" *Nat. Genet.* 36, 906-912

21. Chang, S, Johnston, RJ, Frøkjær-Jensen, C, Lockery, S and **Hobert, O** (2004) "MicroRNAs act sequentially and asymetrically to control chemosensory laterality in the nematode" *Nature* 430, 785-789 (recommended by Faculty of 1000)

2005:

22. Remy, JJ and **Hobert, O** (2005) "An interneuronal chemoreceptor required for olfactory imprinting in *C. elegans*" *Science* 309, 787-790 (highlighted in *Nature* 436, 607 and Faculty of 1000)

23. Johnston, RJ, Chang, S, Etchberger, JF, Ortiz, CO and **Hobert, O** (2005) "MicroRNAs acting in a double-negative feedback loop to control a neuronal cell fate decision" *Proc. Natl. Acad. Sci. USA*, 102, 12449-12454 (Featured in "*This Week in PNAS*")

24. Johnston, RJ and **Hobert, O** (2005) "A novel *C. elegans* zinc finger transcription factor, *lsy-2*, required for the cell-type specific expression of the *lsy-6* microRNA" *Development* 132, 5451-5460

2006:

25. Ortiz, CO, Etchberger, JF, Posy, SL, Frøkjær-Jensen, C, Lockery, S, Honig B, and **Hobert, O** (2006) "Searching for neuronal left/right asymmetry: Genomewide analysis of nematode receptor-type guanylyl cyclases", *Genetics* 173, 131-149

26. Faumont, S, Boulin, T, **Hobert, O**, and Lockery, S (2006) "Developmental regulation of whole-cell capacitance and membrane current in identified interneurons in *C. elegans*", *J. Neurophys.* 95, 3665-3673

27. Berry, KL and **Hobert, O** (2006) "Mapping functional domains of chloride intracelllular channel (CLIC) proteins *in vivo*", *J. Mol. Biol.* 359, 1316-1333

28. Benard, CY, Boyanov, A, Hall, DH and **Hobert, O** (2006) "DIG-1, a novel giant protein non-autonomously mediates maintenance of nervous system architecture", *Development* 133, 3329-3340

29. Johnston, RJ, Copeland, JW, Fasnacht M, Etchberger, JF, Liu J, Honig B and **Hobert, O** (2006) "An unusual Zn finger/FH2 domain protein controls a left/right asymmetric neuronal fate decision in *C. elegans*", *Development* 133, 3317-3328

30. Didiano, D and **Hobert, O** (2006) "Perfect seed pairing is not a generally reliable predictor for miRNA-target interactions", *Nature Struct. Mol. Biol.* 13(9), 849-851 (featured in "News and Views" and in Research Highlight in *Nature* 442, p.960 and in Faculty of 1000)

31. Boulin, T, Pocock R and **Hobert, O** (2006) "A novel Ephrin receptor-interacting Ig/FnIII domain protein provides *C. elegans* motoneurons with midline guidepost function", *Curr. Biol.* 16, 1871-1883 (featured in *Dispatches* in *Curr.Biol.* 16, r954-955)

32. Poole, R and **Hobert, O** (2006) " Early embryonic programming of neuronal left/right asymmetry in *C. elegans*", *Curr. Biol.* 16, 2279-92 (featured in Dispatches Mini-Review in Curr.Biol. 16, r1039-1041, in Nat. Genetics 39, 15 and in Faculty of 1000)

2007:

33. Etchberger, JF, Lorch, A, Sleumer, MC, Zapf, R, Jones, SJ, Marra, MA, Holt, RA, Moerman DG and **Hobert, O** (2007) "The molecular signature and cis-regulatory architecture of a *C. elegans* gustatory neuron' *Genes Dev* 21, 1653-1674

34. Sarin, S, O'Meara, MM, Flowers, EB, Antonio, C, Poole, R, Didiano, D, Johnston, RJ, Chang, S, Narula, S and **Hobert, O** (2007) "Genetic screens for *C. elegans* mutants defective in left/right asymmetric neuronal fate specification" *Genetics* 176, 2109-2130

2008:

35. Pocock, R, Benard, CY, Shapiro L and **Hobert, O** (2008) "Functional dissection of the *C. elegans* cell adhesion molecule SAX-7, a homologue of human L1", *Mol. Cell. Neurosci.* 37, 56-68

36. Etchberger, JF and **Hobert, O** (2008) "Vector-free DNA constructs improve transgene expression in *C. elegans*", *Nature Methods* 5, 3

37. Didiano, D and Hobert, O (2008) "Molecular architecture of a miRNA-regulated 3'UTR", RNA 14, 1297-1317

38. Pocock, R and **Hobert, O** (2008) "Oxygen levels affect axon guidance and neuronal migration in *Caenorhabditis elegans*", *Nature Neurosci.* 11, 894-900 (featured in *News and Views* p.859-861)

39. Sarin, S, Prabhu, S, O'Meara, MM, Pe'er, I*, and **Hobert, O** *(2008) "*Caenorhabditis elegans* mutant allele identification by whole-genome sequencing", *Nature Methods* 5 (10), 865-867 (featured in *News and Views* p. 863-p.864 and in Faculty of 1000)(* joint corresponding authors)

40. Shen, Y, Sarin, S, Liu, Y, **Hobert, O***, Pe'er I* (2008) "Comparing platforms for *C. elegans* mutant identification using high-throughput whole-genome sequencing", *PLoS ONE* 3(12):e4012 (* joint corresponding authors)

41. Doitsidou, M, Flames, N, Lee, AC, Boyanov A and **Hobert, O** (2008) "Automated screening for mutants affecting dopaminergic neuron specification in *C. elegans*", *Nature Methods* 5 (10), 869-872 (featured in *News and Views* p.863-864 and in Faculty of 1000)

42. Bülow, H, Tjoe, N, Townley, RA, Didiano, D, van Kuppevelt, TH and **Hobert, O** (2008) " Extracellular sugar modifications provide instructive and cell-specific information for axon guidance choices", *Curr. Biol.* 18(24):1978-1985 (recommended by Faculty of 1000)

2009:

43. Etchberger, JF, Flowers, EB, Poole, RJ, Bashllari, E and **Hobert, O** (2009) "*Cis*-regulatory mechanisms of left/right asymmetric neuron-subtype specification in *C. elegans*" *Development* 136:147-160 (recommended by Faculty of 1000)

44. Tung JJ, **Hobert, O**, Berryman M, Kitajewski J (2009) " Chloride intracellular channel 4 is involved in endothelial proliferation and morphogenesis in vitro." *Angiogenesis* 12(3):209-20.

45. O'Meara, MM, Bigelow ,H, Flibotte, S, Etchberger, JF, Moerman, DG and **Hobert, O** (2009)["] Cis-regulatory mutations in the *C. elegans* homeobox gene locus *cog-1* affect neuronal development" *Genetics* 181: 1679–1686

46. Tursun, B, Cochella, L, Carrera, I and **Hobert, O** (2009) "A toolkit and robust pipeline for the generation of fosmidbased reporter genes in *C. elegans*", *PLoS ONE* 4(3), e4625

47. Bertrand, V and **Hobert, O** (2009) "Linking asymmetric cell division to the terminal differentiation program of postmitotic neurons in *C. elegans*" *Dev. Cell* 16, 563-575 (recommended by Faculty of 1000)

48. Flames, N and **Hobert, O** (2009) "Gene regulatory logic of dopaminergic neuron differentiation" *Nature* 458, 885-889 (featured in *News and Views* p.843-844, in *Genome Biology* 10, 229 and in Faculty of 1000)

49. Ortiz, CO, Faumont, S, Takayama, J, Ahmed, HK, Goldsmith, AD, Pocock, R, McCormick KE, Kunimoto, H, lino, Y, Lockery, S and **Hobert, O** (2009) "Lateralized gustatory behavior of *C. elegans* is controlled by specific receptor-type guanylyl cyclases", *Curr. Biol.* 19, 996-1004 (recommended by Faculty of 1000)

50. Bigelow, H, Doitsidou, M, Sarin, S and **Hobert, O** (2009) "MAQGene: software to facilitate *C. elegans* mutant genome sequence analysis" *Nature Methods*, 6(8):549

51. Sarin, S, Antonio, C, Tursun, B and **Hobert, O** (2009) "The *C. elegans* Tailless/TLX transcription factor nhr-67 controls neuronal identity and left/right asymmetric fate diversification" *Development*, 136(17):2933-44

52. Benard, C, Tjoe, N, Boulin, T, Recio, J and **Hobert, O** (2009) "The Small, Secreted Immunoglobulin Protein ZIG-3 Maintains Axon Position in *Caenorhabditis elegans*" *Genetics* 183, 917-927

2010:

53. Didiano, D, Cochella, L, Tursun, B and **Hobert, O** (2010) "Neuron-type specific regulations of a 3'UTR through redundant and combinatorially acting *cis*-regulatory elements", *RNA* 16, 349–363

54. Pocock, R and **Hobert, O** (2010) "Hypoxia activates a latent circuit for processing gustatory information in *C. elegans*" *Nature Neurosci.* 13(5), 610-614

55. Flowers, E, Poole, R, Tursun, B, Bashllari, E, Pe'er, I and **Hobert, O** (2010) "UNC-37/Groucho interacts with a short Groucho-like protein, LSY-22, to control developmental decisions", *Development* 137, 1799-1805

56. Sarin, S, Bertrand, V, Bigelow, H, Boyanov, A, Doitsidou, M, Poole, R, Narula, S and **Hobert, O** (2010) "Analysis of multiple ethyl methanesulfate-mutagenized *Caenorhabditis elegans* strains by whole-genome-sequencing", *Genetics* 185, 417-430

57. O'Meara, MM, Zhang, F and **Hobert, O** (2010) "Maintenance of neuronal laterality in *C. elegans* through MYST histone acetyltransferase complex components LSY-12, LSY-13 and LIN-49", *Genetics* 186, 1497–1502

58. Doitsidou, M, Poole, RJ, Sarin, S, Bigelow, H and **Hobert, O** (2010) "*C. elegans* mutant identification with a one-step Whole-Genome-Sequencing and SNP mapping strategy", *PLoS ONE* 5(11), e15435 (recommended by Faculty of 1000; acc. to PloS ONE, among the 10% of most cited papers in PloS One, as of June 2017)

59. Goldsmith, AD, Sarin, S, Lockery, S and **Hobert, O** (2010) "Developmental control of lateralized neuron size in the nematode *Caenorhabditis elegans*" *Neural Dev* 5, 33

2011:

60. Haklai-Topper, L, Soutschek, J., Sabanay, H, Scheel, J, **Hobert, O*** and Peles, E* (2011) "The Neurexin Superfamily of *Caenorhabditis elegans*", *Gene Expr Patterns* 11 (2011) 144–150 (* joint corresponding authors)

61. Tursun, B, Patel, T, Kratsios, P and **Hobert, O** (2011) "Direct conversion of *C. elegans* germ cells into specific neuron types", *Science* 331, 304-308 (Research Article; featured in Perspective in *Science, Curr.Biol., Nature Struct. Mol. Biol., Nature Methods, Nature Reviews Neuroscience* and in Faculty of 1000).

62. Poole, RJ, Bashllari, E, Cochella, L, Flower, EB and **Hobert, O** (2011) "A genome-wide RNAi screen for factors involved in neuronal specification in *Caenorhabditis elegans*", *PLoS Genetics* 7 (6), e1002109

63. Zhang, F, O'Meara, MM and **Hobert, O** (2011) "A left/right asymmetric neuronal differentiation program is controlled by the *C. elegans* LSY-27 Zn finger transcription factor", *Genetics* 188, 753–759

64. Bertrand, V, Bisso, P, Poole RJ and **Hobert, O** (2011) "Notch-dependent induction of left/right asymmetry in *C. elegans* interneurons and motoneurons", *Curr. Biol.* 21, 1225-1231

65. Zheng, G, Cochella, L, Lui, J, **Hobert, O** and Li, WH (2011) "Temporal and spatial regulation of microRNA activity with photo-activatable cantimirs", *ACS Chem. Biol.* 6(12):1332-8

66. Rechavi, O, Minevich, G and **Hobert, O** (2011) "Transgenerational inheritance of an acquired small RNA-based antiviral response in *C. elegans* ", *Cell* 147, 1248-1256 (recommended by Faculty of 1000)

2012:

67. Kratsios, P, Stolfi, A, Levine, M and **Hobert, O** (2012) "Coordinated regulation of cholinergic motor neuron traits through a conserved terminal selector gene", *Nature Neurosci.* 15, 205-214 (recommended by Faculty of 1000)

68. Bénard, C, Blanchette, C, Recio, J and **Hobert, O** (2012) "The secreted Ig domain proteins ZIG-5 and ZIG-8 cooperate with L1CAM/SAX-7 to maintain nervous system integrity in *C. elegans* ", *PLoS Genetics* 8(7): e1002819

69. Patel, T, Tursun, B, Rahe, D and **Hobert, O** (2012) "Removal of Polycomb Repressive Complex 2 makes *C. elegans* germ cells susceptible to direct conversion into specific somatic cell types", *Cell Reports* 2, 1178–1186

70. Minevich, G, Park, DS, Blankenberg, D, Nekrutenko, A, Poole, RJ and **Hobert, O** (2012) "CloudMap: A Cloud-based Pipeline for Analysis of Mutant Genome Sequences", *Genetics* 192, 1249–1269

71. Cochella, L and **Hobert, O** (2012) "Embryonic priming of a miRNA locus predetermines postmitotic neuronal left-right asymmetry in *C. elegans*", *Cell* 151, 1229–1242 (highlighted in *Nature Neuroscience*; recommended by Faculty of 1000)

2013:

72. Weinberg, P, Flames, N, Sawa, H, Garriga, G and **Hobert, O** (2013) "The SWI/SNF chromatin remodeling complex selectively affects multiple aspects of serotonergic neuron differentiation", *Genetics* 192, 1249-69

73. Smith, HK, Luo, L, O'Halloran, D, Guo, D, Huang, X-Y, Samuel, ADF and **Hobert, O** (2013) "Defining specificity determinants of cyclic GMP-mediated gustatory sensory transduction in *Caenorhabditis elegans*", *Genetics* 94, 885-901

74. Doitsidou, M, Flames, F, Topalidou, I, Abe, N, Felton, T, Remesal, L, Popovitchenko, T, Mann, RS, Chalfie, M and **Hobert, O** (2013) "A combinatorial regulatory signature controls terminal differentiation of the dopaminergic nervous system in *C. elegans*", *Genes Dev*. 27, 1391-1405

75. Serrano-Saiz, E, Poole, RJ, Felton, T, Zhang, F, De La Cruz, E and **Hobert, O** (2013) "Modular control of glutamatergic neuronal identity in *C. elegans* by distinct homeodomain proteins", *Cell* 155, 659–673

2014:

76. Zhang, F, Bhattacharya, A, Nelson, JC, Abe, N, Gordon, P, Lloret-Fernandez, C, Maicas, M, Flames, N, Mann, RS, Colón-Ramos, DA and **Hobert, O** (2014) "The LIM and POU homeobox genes *ttx-3* and *unc-86* act as terminal selectors in distinct cholinergic and serotonergic neuron types", *Development* 141, 422-435

77. Cochella, L, Tursun, B, Hsieh, YW, Galindo, S, Johnston, RJ, Chuang, CF* and **Hobert, O*** (2014) "Two distinct types of neuronal asymmetries are controlled by the *Caenorhabditis elegans* zinc finger transcription factor *die-1*", *Genes Dev*. 28, 34–43 (* joint corresponding authors)(Mini-reviewed in *Curr. Biol. 24, R201–R204*; recommended by Faculty of 1000)

78. Nagarajan, A, Ning, Y, Reisner, K, Larsen, JP, **Hobert, O**^{*}, Doitsidou M^{*} (2014) "Progressive degeneration of dopaminergic neurons through TRP channel-induced cell death" *J. Neurosci.* 34, 5738-5746 (* joint corresponding authors)

79. Glenwinkel, L, Wu, D, Minevich G, **Hobert, O** (2014) "TargetOrtho: a phylogenetic footprinting tool to identify transcription factor targets", *Genetics* 197, 61-76

80. Rechavi, O, Houri-Ze'evi, L, Anava, S Goh WSG, Kerk, SY, Hannon, GJ, **Hobert, O** (2014) "Starvation-induced transgenerational inheritance of small RNAs in *C. elegans*", *Cell* 158, 277–287 (featured in Preview in same issue; recommended by Faculty of 1000)

81. Woods, DP, Ream, TS, Minevich, G, **Hobert, O** and Amasino, RM (2014) "PHYTOCHROME C is an essential light receptor for photoperiodic flowering in the temperate grass, Brachypodium distachyon", *Genetics* 198:397-408

2015:

82. Kratsios, P, Pinan-Lucarré, B, Kerk, SY, Bessereau, JL and **Hobert, O** (2015) "Transcriptional coordination of synaptogenesis and neurotransmitter signaling", *Curr. Biol.* 25, 1282–1295 (recommended by Faculty of 1000)

83. Murgan, S, Kari, W, Rothbächer, U, Iché-Torres, M, Mélénec, P, Couillault, C, **Hobert, O*** and Bertrand, V* (2015) "Atypical transcriptional activation by TCF via a Zic transcription factor in *C. elegans* neuronal precursors", *Dev Cell* 33, 737-745 (* joint corresponding authors)

84. Vidal, B, Santella, A, Bao, Z, Chuang, CF and **Hobert, O** (2015) "*C. elegans* SoxB genes are dispensable for embryonic neurogenesis but required for terminal differentiation of specific neuron types", *Development* 142, 2464-2477

85. Alqadah, A, Hsieh, YH, Vidal, B, Chang, C, **Hobert, O***, Chuang, CF* (2015) "Postmitotic diversification of olfactory neuron types is mediated by differential activities of the HMG-box transcription factor SOX-2", *EMBO J.*, 34, 2574-2589 (*joint corresponding authors)

86. Gordon, PM and **Hobert, O** (2015) "A competition mechanism for a homeotic neuron identity transformation in *C. elegans*", *Dev. Cell* 34, 206–219

87. Howell, K, White, JG and **Hobert, O** (2015) "Spatiotemporal control of a novel synaptic organizer molecule", *Nature* 523, 83-87 (covered in *News & Views*, p.44-45)

88. Stefanakis, N, Carrera, I, and **Hobert, O** (2015) "Regulatory logic of pan-neuronal gene expression in *C. elegans*" *Neuron*, 87, 733–750

89. Pereira, L, Kratsios, P, Serrano-Saiz, E, Sheftel, H, Mayo, A, Hall, DH, White, JG, LeBoeuf, B, Garcia, LR, Alon, U and **Hobert, O** (2015) "A cellular and regulatory map of the cholinergic nervous system of *C. elegans*", *eLife* 2015;4:e12432

2016:

90. Oren-Suissa, M, Bayer, EA and **Hobert, O** (2016) "Sexually dimorphic synaptic connectivity established by sexspecific synapse pruning in *C. elegans*", *Nature*, 533:206-211 (Research Article; featured in *News & Views*; recommended by Faculty of 1000; covered in Washington Post, May 18, 2006)

91. Gendrel, M, Atlas, EG and **Hobert, O** (2016) "A cellular and regulatory map of the GABAergic nervous system of *C. elegans*", *eLife* 5:e17686

92. **Hobert, O**, Glenwinkel, L, White, JG (2016) "Revisiting Neuronal Cell Type Classification in *Caenorhabditis elegans*", *Curr. Biol.* 26, R1197–R1203 (recommended by Faculty of 1000)

2017:

93. Kerk , SY, Kratsios, P, Hart, M, Mourao, R and **Hobert, O** (2017) "Diversification of *C. elegans* motor neuron identity via selective effector gene repression" *Neuron* 93, 80–98

94. Serrano-Saiz, E, Oren-Suissa, M, Bayer, EA, and **Hobert, O** (2017) "Sexually dimorphic differentiation of a *C. elegans* hub neuron is cell-autonomously controlled by a conserved transcription factor" *Curr. Biol.* 27, 199–209 (recommended by Faculty of 1000)

95. Patel, T and **Hobert, O** (2017) "Coordinated control of terminal differentiation and restriction of cellular plasticity", *eLife* 6:e24100 (recommended by Faculty of 1000)

96. Howell, K and **Hobert, O** (2017) "Morphological diversity of *C. elegans* sensory cilia instructed by the differential expression of an immunoglobulin domain protein", *Curr. Biol.* 27, 1782–1790 (featured in *Dispatch* in *Curr.Biol.* 27, *R642–R666*)

97. Serrano-Saiz, E, Pereira, L, Gendrel, M, Aghayeva, U, Bhattacharya, A, Howell, K, Garcia, LR and **Hobert, O** (2017) "A neurotransmitter atlas of the *C. elegans* male nervous system reveals sexually dimorphic neurotransmitter usage", *Genetics* 206: 1251–1269

98. Kratsios, P, Kerk, SY, Catela, C, Liang, J, Vidal, B, Bayer, EA, Feng, F, De La Cruz, ED, Croci, L, Consalez, GG, Mizumoto, K and **Hobert, O** (2017) "An intersectional gene regulatory strategy defines subclass diversity of *C. elegans* motor neurons", *eLife* 6:e2575

99. Leyva-Diaz, E Stefanakis, N, Carrera, I, Lori Glenwinkel, L, Wang, G, Driscoll, M and **Hobert, O** (2017) "*pals-22*, a member of an expanded *C. elegans* gene family, controls silencing of repetitive DNA", *Genetics* 207: 529-545

2018:

100. Doitsidou, M, Kroll, J, Minevich, G, Soete, G, Gowtham, S, Korswagen, HC, van Zon, JS and **Hobert, O** (2018) "A *C. elegans* Zn finger transcription factor, *ztf*-6, required for the specification of a dopamine neuron producing lineage", *G3: Genes, Genomes, Genetics* 8(1), 17-26

101. Vidal, B, Aghayeva, U, Sun, H, Wang, C, Glenwinkel, L, Bayer, E and **Hobert, O** (2018) "An atlas of *Caenorhabditis elegans* chemoreceptor expression", *PLoS Biology* 16(1): e2004218

102. Hart, M and **Hobert, O** (2018) "Neurexin controls functional and morphological plasticity of a mature sexually dimorphic neuron", *Nature* 553, 165-170 (Research Article)(featured in News & Views *Nature* 553, 159-160; recommended by Faculty of 1000)

103. Weinberg, P, Berkseth, M, Zarkower, D and **Hobert, O** (2018) "Sexually dimorphic *unc-6*/Netrin expression controls sex-specific maintenance of synaptic connectivity", *Curr Biol.* 28, 623–629 (featured in *Dispatch* in *Curr. Biol.* 28: R254-R256; recommended by Faculty of 1000)

104. Masoudi, N, Tavazoie, S, Glenwinkel, L, Ryu, L, Kim, K and and **Hobert, O** (2018) "Unconventional function of an Achaete-Scute homolog as a terminal selector of nociceptive neuron identity", *PLoS Biology* 16(4): e2004979

105. Serrano-Saiz, E, Leyva-Díaz, E, De La Cruz, E and **Hobert, O** (2018) "BRN3-type POU homeobox genes maintain the identity of mature postmitotic neurons in nematodes and mice", *Curr Biol.* 28, 2813–2823

106. Bayer, EA and **Hobert, O** (2018) "Sexually dimorphic neuronal wiring is shaped by past experience through monoaminergic signaling", *Nature* 561, 117–121

2019:

107. Pereira, P, Aeschimann, F, Wang, C, Lawson, H, Serrano-Saiz, E, Portman, DS, Großhans, H and **Hobert, O** (2019) "Timing mechanism of sexually dimorphic nervous system differentiation", *eLife* 8: e42078 (featured in Insight by Perry & Desplan *eLife* 8:e41523)

108. Bhattacharya, A, Aghayeva, U, Berghoff, E and **Hobert, O** (2019) "Plasticity of the electrical connectome of *C. elegans*", *Cell 176, 1174–1189* (featured in *Dispatch* in *Curr. Biol. 29, R372-R375*)

109. Cook, SJ, Jarrell, TA, Brittin, CA, Wang, Y, Bloniarz, AE, Yakovlev, MA, Nguyen, KCQ, Tang, LTH, Bayer, EA, Duerr, JS, Bülow, HS, **Hobert, O**, Hall, DH and Emmons SW (2019) "Whole-animal connectomes of both *Caenorhabditis elegans* sexes", *Nature* 571, 63-71 (featured in *Nature* News & Views; New York Times; Washington Post)

110. Rahe, D and **Hobert, O** (2019) "Restriction of cellular plasticity of differentiated cells mediated by chromatin modifiers, transcription factors and protein kinases", *G3: Genes, Genomes, Genetics* 9: 2287-2302

111. Leyva-Diaz, E and **Hobert**, **O** (2019) "Transcription factor autoregulation required for acquisition and maintenance of neuronal identity", *Development* 146 (13), dev177378 (highlighted article)(recommended by Faculty of 1000)

112. Hong, RL, Riebesell, M. Bumbarger, DJ, Cook, SJ, Carstensen, HR, Sarpolaki, T, Cochella, L, Castrejon, J, Moreno, E, Sieriebriennikov, B, **Hobert, O** and Sommer, RJ (2019) "Evolution of neuronal anatomy and circuitry in two highly divergent nematode species", *eLife* 8:e47155