

Curriculum vitae
Oliver Hobert, Ph.D.

Columbia University, Department of Biological Sciences
Howard Hughes Medical Institute

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Birth: 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 Ph.D., Molecular Biology, Max Planck Institute for Biochemistry, Martinsried, Germany;
Advisor: Prof. Axel Ullrich
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
2014-present Full Professor at Columbia University Medical Center, Department of Systems Biology
2009-present Full Professor at Columbia University Medical Center, Department of Biochemistry and Molecular Biophysics
2005-present Investigator, Howard Hughes Medical Institute
2005-2009 Associate Professor (with tenure) at Columbia University Medical Center, Department of Biochemistry and Molecular Biophysics
1999-2005 Assistant Professor at Columbia University Medical Center, Department of Biochemistry and Molecular Biophysics, Co-Appointment in the Center for Neurobiology and Behavior

Awards and Honors:

2015 Jacob Javits Award in the Neurosciences
2014 Elected Fellow of the American Association for the Advancement of Science (AAAS)
2008 Harland Winfield Mossman Award in Developmental Biology
2001 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 10th Anniversary Award (for postdoctoral work)
1998 Postdoctoral Fellowship Award from the MGH Fund For Medical Discovery
1997 Junior Investigator Award from the German Academy of Science "Leopoldina" (for Ph.D. work)
1996 Human Frontiers in Science Postdoctoral Fellowship
1994 Awarded a Ph.D. scholarship from the DAAD for 1 year stay at Sugem, Inc.
1993 Awarded a Ph.D. scholarship from the "Studienstiftung des deutschen Volkes"
1989 Awarded an undergraduate scholarship from "Studienstiftung des deutschen Volkes"

Teaching Activities:

At Columbia University

starting 2017 Lecturer Advanced Undergraduate course "Developmental Neurobiology", Dept. of Biological Sciences
2013-2015 Lecturer Graduate course "Advanced eukaryotic molecular genetics", Dept. of Genetics & Dev.

2012 Lecturer Graduate course "Genetics", Dept. of Biological Sciences
 2009-2015 Lecturer Graduate course "Professional Development for Neuroscientists", Dept. of Neuroscience
 2008-present Lecturer Graduate course "Molecular Genetics", Dept. of Microbiology and Immunology
 2007-2011 Organizer & Lecturer of "Stem Cells and Cell Lineage Specification" course
 2002-2015 Lecturer Graduate course "Principles of Developmental Biology", Dept. of Genetics & Dev.
 2001-2015 Lecturer Graduate course "Developmental Neurobiology", Dept. of Neuroscience
 2001-2008 Co-Organizer Graduate Course "Developmental Neurobiology", Center for Neurobiol. & Behavior
 1999-2007 Lecturer Graduate course "Biochemistry and Molecular Biology of Eukaryotes", Dept. of Biochem.

Outside Columbia University

2015 Guest lecturer in Cold Spring Harbor Course "Advanced Techniques in Molecular Neuroscience"
 2011 Guest lecturer MBL Course "Gene Regulatory Networks", Woods Hole
 2009,2013,2015 Guest lecturer EMBO Course "Developmental Neurobiology", University College London
 2009 Guest lecturer in Lipari Summer School "Computational Biology", Italy
 2006 Guest lecturer in Postgraduate Course on Developmental Biology at the Universidad de Chile
 2005 Guest lecturer at New Jersey Governor's School in the Sciences, Drew University, NJ
 2004 Guest lecturer in "Developmental Neurosci.", Graduate course at New York University
 2003,2004 Guest lecturer in "Developmental Neurosci.", Graduate course at Albert Einstein College of Med.
 2002,2008,2010 Guest lecturer in Cold Spring Harbor Course "C.elegans", Cold Spring Harbor
 2000 Guest lecturer in Cold Spring Harbor Laboratory, Course on "Adv. Genome Seq. Analysis"

Training Activities:

Graduate students/postdocs

1999-present Postdoctoral training: 19 past Postdoctoral Fellows (12 currently Faculty Members)
 Graduate training: 17 past Graduate Students (5 currently Faculty Members)

Other:

2007-2012 Program director NIH T32 Training Grant "Stem Cells and Cell Lineage Specification"
 2006-present Training Mentor Harlem Children Society
 2005-present Training Faculty of the Graduate Program in Biological Sciences at Columbia University
 2004-present Training Faculty of the Graduate Program in Genetics and Development
 1999-present Training Faculty of the Neuroscience Graduate Program (Center for Neurobiology and Behavior)

Trainees:

a) Past Postdoctoral Fellows:

- 1) 1999-2000 Zeynep Altun-Gultekin (M.D., Ph.D. Cornell U), now Attending Psychiatrist/Faculty, Columbia University 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) 2003-2004 Yael Feinstein (Ph.D. Weizmann Institute, Israel), now: Head of Bio-optics facility, Hebrew Univ.
- 5) 1999-2005 Hannes Buelow (Ph.D. Max Delbrück Center, Berlin), now: Associate Professor at Albert Einstein College of Medicine
- 6) 2003-2004 Erik Runko (Ph.D. AECOM), now Program Analyst, Extramural Research Program, NIH
- 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) 2007-2009 Henry Bigelow (Ph.D. Columbia University), now: Computational Biologist, Amgen Inc.
- 10) 2004-2009 Roger Pocock (Ph.D. Oxford University, UK), now Associate Professor, Monash University, Austral.
- 11) 2005-2011 Vincent Bertrand (Ph.D. Univ. Marseille), now: Group Leader, University of Marseille
- 12) 2005-2011 Maria Doitsidou (Ph.D. MPI Biophys.Chemistry), now Group Leader (Chancellor's Fellow), University of Edinburgh, Scotland
- 13) 2005-2012 Richard Poole (Ph.D. UC London), now: Group Leader (Wellcome Trust Career Development Fellow) at University College, London
- 14) 2006-2011 Nuria Flames (Ph.D. Neuroscience Institute Alicante, Spain), now: Group Leader, Institute of Biomedicine of Valencia, Spain
- 15) 2006-2011 Baris Tursun (Ph.D. ZMNH, Germany), now: Group Leader at Max Delbrueck Center, Berlin
- 16) 2006-2012 Luisa Cochella (Ph.D. Johns Hopkins University), now: Group Leader IMP, Vienna, Austria
- 17) 2010-2012 Oded Rechavi (Ph.D. Tel Aviv University, Israel), now: Assistant Professor, Tel Aviv University
- 18) 2008-2014 Ines Carrera (Ph.D. NYU), now: Postdoctoral Fellow, Institut Pasteur de Montevideo, Uruguay
- 19) 2010-2016 Paschalis Kratsios (Ph.D. EMBL, Germany/Italy), ensuing position: Assistant Professor,

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 Assistant 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
- 7) 2001-2005 Thomas Boulin (Ecole Normale Supérieure, Paris, France), now Group Leader, Université Lyon
- 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 Kaplan Fellow at Harvard Business School
- 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)
- 20) 2009-2015 Nikolaos Stefanakis (Biology Program), now Postdoctoral Fellow at NYU

Institutional Committees:

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|-----------|---|
| 2015-2016 | Member of Search Committee Junior Faculty Recruitment for Dept. of Biological Sciences |
| 2011-2012 | Member of Search Committee Junior Faculty Recruitment for Columbia Stem Cell Initiative |
| 2010 | 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:

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| 2012-present | Associate Editor, <i>Wiley Interdisciplinary Reviews (WIREs): Developmental Biology</i> |
| 2012-present | Reviewing Editor, <i>eLife</i> |
| 2012-2013 | Associate Editor, <i>Neural Development</i> |
| 2009-present | Editorial board of <i>Current Biology</i> |
| 2009-present | Editor, <i>WormMethods</i> |
| 2009-2015 | Editorial board of <i>Developmental Dynamics</i> |
| 2009 | Guest Co-Editor special issue <i>Current Opinions in Neurobiology "Development"</i> |
| 2009 | Guest Editor special issue <i>Current Topics in Dev. Biol. "Development of Neural Circuitry"</i> |
| 2008-present | Associate Editor; then Senior Editor & Reviews Editor, <i>Genetics</i> |
| 2007-present | Editorial board of <i>Developmental Biology</i> |
| 2006-present | Editorial board of <i>Neural Development</i> |
| 2006-present | Editorial board of <i>Mechanisms of Development</i> & sister journal <i>Gene Expression Patterns</i> |
| 2005 | Editor, <i>WormBook</i> , Gene Expression Section |
| 2003-present | Editorial board of <i>Development</i> |
| 2002 | Guest Editor special issue <i>Journal of Neurobiology "Genes and Behavior"</i> |
| 2001-present | F1000Prime Faculty member |

Advisory Boards:

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| 2015-present | Scientific and Clinical Steering Committee New York Genome Center |
| 2011 | Advisory Board "European Neuroscience Institute" Göttingen |
| 2011-present | Scientific Advisory Board WormBase |
| 2010 | Harlem Children Society's Executive Advisory Committee |

2008-2014 Elected Board member of Society for Developmental Biology (Northeast Represent.; 2 terms)

Meeting Organization:

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) 18th 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:

Active:

2015-present P37 Merit Award for R01NS039996
2014-2017 National Institute of Health, BRAIN award 1U01MH105924
2005-present Howard Hughes Medical Institute (next renewal 2016)
2000-present National Institutes of Health R01NS039996 (3.renewed funding period)

Pending council review (3rd percentual score)

2016-2018 National Institutes of Health R21 NS096343-01

Past:

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:

2015-present Life Sciences Research Foundation postdoctoral fellowship review panel

2015 Review panel NYU Abu Dhabi (NYUAD) Center for Genomics and Systems Biology
 2010-2012 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)
- Human Frontiers in Science Program
- French Ministry of Research and Education
- European Science Foundation
- Biotechnology and Biological Sciences Research Council (BBSRC), UK
- Israeli Science Foundation (ISF)
- National Science Foundation (NSF)
- Medical Research Council, UK
- Natural Environment Research Council (NERC), UK
- United States/Israel Binational Science Foundation (BSF)
- BBSRC, UK
- NYU Abu Dhabi Center for Genomics, External Review comm.

Publication Peer review activities:

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

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. LMU University Munich, Gene Center, 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 Fransisco, 03/2001
15. Society for Developmental Biol., North-East section meeting Woods Hole, 04/2001
16. Ecole Normale Supérieure, Paris, 05/2001
17. Weizmann Institute, Department of Cell Biology, Rehovot, 05/2001
18. Max Planck Institute for Molecular Genetiscs, 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 (Gene Center) at the LMU, Munich, 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. Prog., 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 Fransisco , 07/2005
62. University of Massachusetts Medical School, Worcester, Prg.Mol.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 Dev. 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 für Molekulare Neurobiologie Hamburg, 09/2006
79. Max Planck Institut für Biophysikalische Chemie, Göttingen, 09/2006
80. Hellenic Society for Neuroscience, Kreta, 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, Behaviour 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. University of Cologne Symposium, Germany, 06/2010, **Keynote Speaker**
146. University of 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 Maximilian University Munich, 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. Swiss Society for Molecular and Cellular Biosciences, Symposium Life Science Switzerland, Lausanne, 02/2016
245. Brown University, Department of Neuroscience, 04/2016
246. Fondation des Treilles meeting "Plasticity of cellular identity", 05/2016
247. Genetics Society of America, The Allied Genetics Conference, Orlando, Florida, 07/2016
248. C.elegans Neuro (CeNeuro) Meeting, Nagoya, Japan, 07/2016
249. National Institute of Genetics, Mishima, Japan, 07/2016
250. Mt. Sinai School of Medicine, Department of Developmental and Regenerative Biology, 09/2016
251. Keystone meeting "Neurogenesis during Development and in the Adult Brain", Olympic Valley, 01/2017
252. EMBO meeting "Gene regulatory mechanisms in neural fate decisions", Alicante, Spain, 9/2017

Publications:

Reviews, Essays & Commentaries

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.Op. 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" **Ann.Rev.Neurosci.** 26, 207-238 (Invited Review)
7. **Hobert, O**, Hutter, H and Hynes, RO (2004) "The immunoglobulin superfamily in *Caenorhabditis elegans* and *Drosophila melanogaster*" **Development** 131, 2237-2238 (Commentary)
8. **Hobert, O** (2004) "Common logic of transcription factor and miRNA action" **TIBS**, 29(9), 462-468
9. **Hobert, O** (2005) "MicroRNAs: All Gone and Then What?" **Curr.Biol**, 15(10), R387-389 (Invited Commentary)
10. Bülow, HE and **Hobert, O** (2006) "The Molecular Diversity of Glycosaminoglycans shapes Animal Development" **Ann.Rev. of Cell Dev. Biol.** 22, 375-407 (Invited Review)
11. **Hobert, O** (2006) "Architecture of a microRNA-controlled gene regulatory network that diversifies neuronal cell fates", **Cold Spring Harbor Symposia on Quantitative Biology: Regulatory RNAs**, Volume 71, 181-188
12. **Hobert, O** (2007) "MicroRNAs playing a tune" **Cell** 131, 22-24 (Invited Commentary)
13. **Hobert, O** (2008) "Gene regulation by transcription factors and microRNAs" **Science** 319, 1785-1786 (Invited Review)
14. **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)
15. Bertrand, V and **Hobert, O** (2009) "Wnt asymmetry and the terminal division of neuronal progenitors", **Cell Cycle** 8, 1973-1974 (Invited Feature Article)
16. **Hobert, O** (2010) "The impact of Whole Genome Sequencing on model system genetics: Get ready for the ride" **Genetics**, 184: 317-319 (Perspective)
17. 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)
18. **Hobert, O**, Carrera, I and Stefanakis, N (2010) "The molecular and gene regulatory signature of a neuron" **Trends in Neurosci.**, 33, 435-445
19. **Hobert, O** (2010) "Enhancers stepping out of the shadow" **Curr. Biol.** 20, R697-699 (Invited Commentary)
20. **Hobert, O** (2011) "Maintaining a memory by transcriptional autoregulation" **Curr. Biol.** 21(4), R146-147 (Primer)
21. Flames, N and **Hobert, O** (2011) "Transcriptional Networks Determining Monoaminergic Fate" **Ann. Rev. Neurosci.** 34, 153-84 (Invited Review)
22. **Hobert, O** (2011) "Regulation of terminal differentiation programs in the nervous system" **Ann. Rev. Cell Dev. Biol.** 27, 681-696 (Invited Review)
23. Boulin, T and **Hobert, O** (2012) "From Genes to Function: The *C. elegans* Genetic Toolbox" **WIREs Developmental Biology**, 1:114-137 (Invited Review)
24. **Hobert, O** (2014) "Development of left/right asymmetry in the *Caenorhabditis elegans* nervous system: From zygote to postmitotic neuron" **genesis** 52:528-543
25. Deneris, E and **Hobert, O** (2014) "Maintenance of postmitotic neuronal cell identity", **Nature Neurosci.** 17, 899-907
26. Hart, MP and **Hobert, O** (2015) "Neurobiology: Dimorphic mystery neurons control sex-specific behavioral plasticity", **Curr.Biol.** 25, pR1170-R1172 (Invited Commentary)
27. Arlotta, P and **Hobert, O** (2015) "Homeotic transformations of neuronal cell identities", **Trends in Neurosci.** 38, p.751-762
28. Howell, K and **Hobert, O** (2016) "Small Immunoglobulin domain proteins at synapses and the maintenance of neuronal features", **Neuron** 89, 239-241 (Invited Minireview)
29. **Hobert, O** (2016) "A map of terminal regulators of neuronal identity in *C.elegans*", **WIREs Dev. Biol.**, in press (Invited review)

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: **Patterning and Cell Type Specification in the Developing CNS and PNS**, Edited by Pasko Rakic and John Rubenstein, Academic Press, 2013
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.** 50th Anniversary Issue "Essays on Developmental Biology", *invited chapter*, in press
<http://www.sciencedirect.com/science/article/pii/S0070215315002148>
 10. Vidal, B and **Hobert, O** (2016) "Methods to study nervous system laterality in the nematode *Caenorhabditis elegans*" **Neuromethods** (Springer), *invited chapter*, in press
 11. Oren, M and **Hobert, O** (2016) "Sexual dimorphism in the nervous system of simple model organism", in "**Principles of Gender-specific Medicine**", Academic Press, in preparation (invited chapter)

Primary research publications:

Undergraduate & Graduate Student:

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, Tarakhovskiy, A (2003) "Ezh2 controls B cell development through histone H3 methylation and Igh rearrangement" **Nat. Immunol.** 4, 124-131 (featured in F1000)

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'Alberty, 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,

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

Principal 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
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)
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)
14. 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**, Capodiceci, 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 asymmetrically to control chemosensory laterality in the nematode" **Nature** 430, 785-789 (recommended by Faculty of 1000)
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, *Isy-2*, required for the cell-type specific expression of the *Isy-6* microRNA" **Development** 132, 5451-5460
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 intracellular 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)
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
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)
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 fosmid-based reporter genes in *C. elegans*", **PLoS ONE** 4(3), e4625
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