CURRICULUM VITAE

NANCY M. BONINI

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Education & Training:

1981	A.B. Biology, Princeton University Undergraduate thesis advisor: Dr. William G. Quinn, Department of Biology Project: Learning behavior in *Drosophila*.
1987	Ph.D. Neuroscience, Neurosciences Training Program, Univ. of Wisconsin-Madison Graduate thesis advisor: Dr. David L. Nelson, Department of Biochemistry Project: Regulation of ciliary motility by membrane potential in *Paramecium*.
1983	Cold Spring Harbor summer course "Molecular and Cellular Neurobiology"
1988	Cold Spring Harbor summer course "Neurobiology of *Drosophila"*
1988-1994	Research Fellow in Biology, California Institute of Technology. Postdoctoral Advisor: Dr. Seymour Benzer, Division of Biology Project: Molecular control of cell survival in the nervous system.
2008	Cold Spring Harbor summer course "*C elegans*"

Positions:

1994-2000	Assistant Professor, Department of Biology, University of Pennsylvania
1995-	Member of David Mahoney Institute for Neurological Sciences
2000-2005	Associate Professor, Department of Biology, University of Pennsylvania
2000-	Department of Neuroscience, University of Pennsylvania Medical School, Secondary Faculty Appointment
2000-2013	Investigator of the Howard Hughes Medical Institute
2005-	Professor, Department of Biology, University of Pennsylvania
2006-2012	Lucille B Williams Term Professor of Biology, University of Pennsylvania
2009-2014	Member of the Penn Genome Frontiers Institute
2012-	Florence RC Murray Professor of Biology, University of Pennsylvania
2012-	Member of the Institute of Regenerative Medicine, Neuroscience Program
2013-	Cell and Developmental Biology Department, University of Pennsylvania Medical School, Adjunct Faculty Appointment
2013-	Affiliate Scientist, Lawrence Berkeley National Laboratory, Dept of Genome Dynamics
2014 (Feb)	Visiting scientist, Salk Institute, Plant Biology Group
2014-	Associate Member, Computational and Integrative Biology Center, Rutgers University Camden, NJ

Honors & Awards:

1983	Grass Foundation Fellowship CSH, for summer course "Molecular & Cellular Neurobiology"
1988	Jerzy E. Rose Neuroscience Award for Research in the Neural Sciences, University of Wisconsin-Madison, for PhD thesis work.
1988	CSH Laboratory scholarship, for summer course "Neurobiology of *Drosophila"*
1989	American Cancer Society postdoctoral fellowship
1991	American Cancer Society, California Division

1995 John Merck Scholars Award in the Biology of Developmental Disabilities in Children
1996 March of Dimes, Basil O'Connor Award
1997 Alzheimer's Association Award
1997 David and Lucile Packard Fellowship for Science and Engineering
1998-2000 Huntington's Disease Society of America, Coalition for the Cure Award
1999-2001 Hereditary Disease Foundation, Cure Huntington's Disease Initiative Award
2000 Investigator of the Howard Hughes Medical Institute, national competition
2001, 2002 G. William Fox Corporate Humanitarian Award
2002 Princeton Day School Achievement Award, Princeton, NJ, outstanding achievement
2008 Fidelity Foundation Award
2009 NIH EUREKA (Exceptional, Unconventional Research Enabling Knowledge Acceleration)
2009 Ellison Medical Foundation Senior Scholar in Aging Research
2012 Elected Fellow of the American Association for the Advancement of Science
2012 Elected Member of the National Academy of Sciences
2012 Elected Member of the National Academy of Medicine
2014 Elected Fellow of the American Academy of Arts and Sciences

Editorial Positions:

2004-2007 Associate Editor, Journal of Neuroscience
2010-2012 Associate Editor, Journal of Clinical Investigation
2005-2015 Editorial Board, Annual Reviews of Genetics
2016- Chief Editor, Annual Reviews of Genetics

Scientific Meeting Organizer:

2000 Co-organizer, 12th National Academy of Sciences Symposium *Frontiers of Science*, Nov
2001 Co-organizer of the Neurobiology of Disease Workshop on Triplet Repeat Diseases, Society for Neuroscience, Nov
2003 Co-organizer Society for Developmental Biology Mid-Atlantic Meeting, May
2006 Co-organizer, Parkinson's Disease: Insights from Genetic and Toxin Models, Banbury Center, Cold Spring Harbor Laboratory, May
2005 Session organizer, Cold Spring Harbor Laboratory Drosophila Neurobiology Meeting, for session entitled "Neuronal Cell Biology and Pathology," Oct
2006 Organizing Committee, 1st International Parkinson's Disease World Congress Meeting
2008 Co-organizer, 49th Annual *Drosophila* Research Conference, April
2011 Co-organizer, Cold Spring Harbor Laboratory meeting on "Neurobiology of *Drosophila*", Oct
2016 Co-organizer, 57th Annual *Drosophila* Research Conference. Launch of a new meeting format, with genetics meetings for mouse, C elegans and zebrafish will held together, Aug.

Scientific & Review Boards:

1995-1997 Council Member Society for Neuroscience, Philadelphia Chapter
2001-2002 Neurobiology of Disease Advisory Committee, Society for Neuroscience
2001-2003 Coalition for the Cure Steering Committee, Huntington's Disease Society of America
2002-2004 Member of the NINDS Scientific Review Council
2004-2008 Medical & Scientific Advisory Committee, Huntington's Disease Society of America
2004-2008 Coalition Review Committee, Huntington's Disease Society of America
2004-2008 Grants and Fellowships Review Committee, Huntington's Disease Society of America
2004-2007 Janelia Farms Group Leader Search Committee, Howard Hughes Medical Institute
2005 Scientific Advisory Board for the Thomas Hartman Foundation Cold Spring Harbor Laboratory Parkinson's Research Partnership
2005 Reviewer, Taube Prize for Huntington's Disease Research, for Institute of Neurodegenerative Diseases of the University of California
2005-2009 Member of Cellular and Molecular Neurodegeneration (CMND) study section, NIH

2007-2009 Genetics Society of America, Board of Directors
2007-2010 Scientific Advisory Board member, Genome Espana, Cetegen, Spain
2010-2013 National Drosophila Board
2010 VIB Review Board, Department of Molecular and Developmental Genetics, Belgium
2011- Scientific Review Board, National Ataxia Foundation
2012- Scientific Research Advisory Board, Project A.L.S
2012- Scientific Advisory Board for the Bloomington *Drosophila* Stock Center
2012- Scientific Review Board, The Telethon Foundation, Italy
2016- Member of Molecular Neurogenetics (MNG) study section, NIH

Scientific Society Memberships

American Association for the Advancement of Science
American Physiological Society
American Society for Biochemistry & Molecular Biology
American Society for Cell Biology
Genetics Society of America
International Society for Frontotemporal Dementias, Founding Member
Society for Neuroscience

Plenary, Symposia & Distinguished Lectures

1995 Gordon Research Conference on Cell Death, July
1996 13th Annual Neuroscience Retreat Symposium, U Penn Medical School, April
1997 Drosophila Research Conference, Workshop on Aging, Washington, DC
1997 Developmental Biology Symposium, Department of Cell and Molecular Biology, University of Pennsylvania Medical School, Sept
1998 XIII International Congress on Eye Research, Symposium "Responsible genes for early development of the eye," Paris, France, July
1998 The Royal Society, London, Symposium on Glutamine Repeats & Inherited Neurodegenerative Diseases: Molecular Aspects, October
1999 FASEB conference Amyloids and Other Protein Misfolding Processes, Copper Mountain, CO, June
1999 American Society for Cell Biology, 39th Annual Meeting, Symposium Cellular Degeneration and Disease, Washington DC, December
1999 National Academy of Sciences, 11th annual symposium on *Frontiers of Science*, Polyglutamine Disease/Cell Death, November
1999 International Symposium on Parkinson's Disease Research, Sixth National Parkinson Foundation Meeting, Miami, Fla., Oct
1999 German Society of Genetics, Annual Meeting, Symposium, Neuherberg, Oct
2000 University of Tokyo, Symposium on Neural Development and Degeneration, Tokyo, Japan, Jan
2000 Society for Neuroscience, 30th Annual Meeting, Symposium organizer & speaker, "Invertebrate models for human neurodegenerative disease," New Orleans, Nov.
2000 NIH Fly workshop program "Drosophila: Direct flight to understanding human disease and behavior," HHMI Conference Center, Chevy Chase, Maryland, Sept
2000 NINDS Retreat, Arlington, VA, July
2000 World Alzheimer's Congress 2000 event, 7th International Conference on Alzheimer's Disease and Related Disorders, Symposium speaker, Washington DC, July
2000 Drosophila Research Conference, 41st Annual Meeting, Plenary speaker, Pittsburgh, PA, March
2001 Gordon Research Conference on CAG Triplet Repeat Disorders, July
2001 American Academy of Neurology, "Genetics in Neurology", 53rd Annual Mtg, May
2001 University of Pennsylvania Neuroscience Retreat, April 19, 2001
2001 Workshop on "Molecular, Cellular and Clinical Aspects of Neurodegenerative diseases," Zermatt, Switzerland, January
2002 Adler Symposium, The Salk Institute, La Jolla, CA , January

2002 Sackler Colloqium on Self-perpetuating Structural States in Biology, Disease and Genetics, National Academy of Sciences, Washington, D.C., March
2002 Molecular Chaperones and the Heat Shock Response, Cold Spring Harbor Laboratory, May
2002 Pharmacia Symposium, Kalamazoo, MI, October
2002 Therapeutic Opportunities in Neurodegenerative Diseases, Cold Spring Harbor Laboratory, Dec
2003 Gordon Conference on Aging, Irvine, California, March
2003 "Genetics in Neurology", American Academy of Neurology, 55rd Annual Mtg, Hawaii, May
2003 Queenstown Molecular Biology Meeting, Queenstown, New Zealand, August
2003 National Parkinson's Convention, 8th International, New Orleans, November
2004 Genetics Society of Australia, 51st Annual Conference, Melbourne, Australia, July
2004 Annual Meeting of the Swedish Society for Biochemistry & Molecular Biology, Linkoping University, Sweden, October
2004 Gerontological Society of America, Washington, DC, Nov.
2005 Onassis Lectures on "Programmed cell death and cell signaling in development and disease, Heraklion, Crete,
2005 Session Chair, Gordon Conference on CAG Triplet Repeat Disorders, Mt. Holyoke, July
2005 Scripps/Oxford International Biotechnology Conference Symposium, Palm Beach, Florida, Nov.
2006 Speaker & organizer, Parkinson's Disease: Insights from Genetic and Toxin Models, Banbury Center, Cold Spring Harbor Laboratory, May
2006 Speaker & session chair, Keystone Symposium on Protein Misfolding Diseases: Mechanisms of Misfolding, Pathology and Therapeutic Strategies, Feb
2006 Swiss Society of Neuropathology biannual Meeting, St. Moritz, Switzerland, March
2006 Plenary, European Drosophila Neurobiology Meeting, Sept. 2-6, 2006
2007 Speaker & session chair, Keystone Symposium on Molecular Mechanisms of Neurodegeneration, Jan
2007 Franklin Institute Symposium in honor of Dr. Nancy Wexler, Franklin Life Sciences Award winner, Penn Department of Genetics, April
2007 Speaker, EMBO conference, The Biology of Molecular Chaperones, Tomar, Portugal, June
2007 Session leader, Gordon Research Conference, Oxford University, August
2007 Keynote Lecture, Protein misfolding and Neurological disorders symposium, Dunk Island, Australia, October
2008 Speaker, A Memorial to Seymour Benzer, Caltech, March
2008 Speaker, 2nd International Genome Dynamics & Neuroscience Meeting, Asilomar, June
2008 Speaker, RNA and the Etiology of Disease, Rome, Italy, June
2008 Speaker, 20th International Congress on Genetics, Berlin, Germany, July
2008 Zu Rhein Lecturer, Gabriele M. Zu Rhein Lecture, University of Wisconsin-Madison, Oct
2009 Speaker, 6th International Conference on Unstable Microsatellites and Human disease, Costa Rica, Jan
2009 Speaker, Research and Perspectives in Neurosciences, Fondation IPSEN, Paris, April
2009 Donders Lecturer, The Donders Institute for Brain, Cognition and Behaviour, The Radboud University Nijmegen Medical Centre, The Netherlands, May
2009 59th Annual Meeting of the American Human Genetics, Symposium on Model Organisms and Darwin's legacy, October
2010 Charlie Rose: The Brain Series with Eric Kandel—The Disordered Brain (guests Nancy Bonini, John Donoghue, John Krakauer, and Mahlon DeLong), July
2010 Penn Genomic Frontiers and the Franklin Institute public program "Genomics and Health: Cradle to Grave", March
2010 EMBO workshop, Proteolysis and Neurodegeneration, Organized by InProteolys, Spain, May
2010 OzBio2010, International Conference on "Molecules of Life: from discovery to Biotechnology" Melbourne, Australia, Oct
2010 7th International Conference on Frontotemporal Dementias, Oct
2011 Model Systems of Aging, Cologne, Germany, March
2011 European Society of Human Genetics, Amsterdam, May
2011 CAG Triplet Repeat Disorders Gordon Research Conference, June
2011 Keynote, Penn Genetics Symposium on Human Disease Models, Nov

2012 Keystone Symposium "Protein-RNA Interactions in Biology and Disease, March
2012 Keynote, Fourth Ataxia Investigators Meeting "Advancing Toward Therapeutics", San Antonio, Texas, March
2012 7th International Conference on Unstable Microsatellites and Human Disease, France, June
2013 Plenary, 54th Annual Drosophila Research Conference, April
2013 Colloquium on the Biology of Human Aging, Brown University, May
2013 Ellison Meeting on the Biology of Aging, Woods Hole, Aug
2013 SFN Satellite meeting RNA metabolism in Neurological Disease, Sept
2014 Liu Lecturer, University of Pennsylvania School of Medicine, April
2014 Welcome Trust Meeting, Translational Control of Brain Function in Health and Disease, July
2014 Ellison Meeting on the Biology of Aging, Woods Hole, Aug
2014 ALS/FTD Satellite Meeting, Society for Neuroscience, Nov
2015 Simons Science Series Speaker, Simons Foundation, May
2015 NIH workshop Neurocognition & Metabolism, July

TRAINEES:

Postdoctoral Fellows:

1995-1999 Dr. John Zimmerman (Research Specialist, Center for Sleep and Respiratory Neurobiology, University of Pennsylvania School of Medicine, Philadelphia, PA; now Lecturer, College of Liberal and Professional Studies, University of Pennsylvania)
1996-2002 Dr. John Warrick, 1996-2002 (Associate Prof, University of Richmond, Richmond, VA)
1997-2004 Dr. Beth Gordesky-Gold (Senior Research Specialist, UPenn Medical School)
1999 Dr. Maria Jose Jorquera (Ayudante de Investigación (Investigation assistant), in the Estacion Experimental de Zonas Aridas (Arid Zones Research Station) Institute of the Spanish National Council for Research, Almeria, Spain)
1999-2001 Dr. Edwin Chan, 1999-2001 (Associate Prof, The Chinese University of Hong Kong)
2001-2003 Dr. Sebastien Gaumer, 2001-2003 (Associate Professor, Université Versailles-St Quentin-en-Yvelines, France)
2001-2008 Dr. Joonil Jung (Research Scientist, Broad Institute, MIT, Cambridge, MA; now Pharma)
2002-2004 Dr. Cecilia Gold (childraising)
2003-2011 Dr. Zhenming Yu (Research Scientist, Children's Hospital of Philadelphia, Philadelphia)
2005-2008 Dr. Kangning Liu, 2005-2008 (Scientific Leader, Galaxo-Smith Kline, Shanghai, China; now Research Specialist, Children's Hospital of Philadelphia, Philadelphia, PA)
2005-2011 Dr. Ling-Yang Hao (Research Scientist, Lycera Corp., Plymouth Michigan)
2006-2014 Dr. Lorena Soares (break from science (health-related issues))
2008-2013 Dr. Hyung-Jun Kim (Research Scientist, Korea Brain Research Institute, Daegu, South Korea)
2008-2013 Dr. Yanshan Fang (Principal Investigator, International Research Center for Biology and Chemistry, Shanghai, China)

2008-present Dr. Leeanne McGurk
2009-present Dr. Alondra Burguete
2010-present Dr. Jason Kennerdell
2011-present Dr. Amit Berson

Master's students:

2006-2007 Michael Fitzen (PhD program, Karolinska Institute, Stockholm, Sweden; now postdoctoral scientist, Oxford University)
2007-2008 Marijn van Jaarsveld (PhD program, Erasmus Medical Center, Rotterdam, The Netherlands)
2008-2010 Lindsay Yurcaba

2010-2011 Gert-Jan Hendriks (PhD program, Basel)

Graduate students:

1999-2004 Julide Bilen, Biology (Postdoctoral Scientist, Janelia Farm, Virginia with Lynn Riddiford; now Postdoctoral Scientist, Harvard University).
2000-2006 Lingbo Li, Biology (Postdoctoral Scientist, Stanford University, with Dr. Keng Shen)
2000-2003 Pavan Auluck, Neuroscience (MD/PhD program) (Resident, Dept of Pathology, Massachusetts General Hospital, Boston, MA & postdoctoral scientist with Dr. Susan Lindquist, Whitehead Institute, Boston, MA; now BioGen Idec.)
2000-2007 Melanie Watson, Neuroscience (Medical writer, AlphaBioCom, Radnor, PA)
2001-2005 Marc Meulener, Cell and Molecular Biology (MD/PhD program) (Resident, Dept of Medicine, Robert Wood Johnson Medical School, New Brunswick, NJ and Resident, Dept of Dermatology, St Luke's-Roosevelt Hospital, New York, NY)
2004-2010 Nan Liu, Biology (Postdoctoral scientist, UCSD with Dr. Yishi Jin; now Principal Investigator, International Research Center for Biology and Chemistry, Shanghai,China).
2006-2011 Shin-yi Shieh, Biology (Student Advisor)
2008-2013 Masashe Abe, Biology (Research scientist, Astellas Pharma, Tokyo, Japan).
2011-2013 Mimi Cushman, Neuroscience (co-advisor with Dr. Jim Shorter) (Postdoctoral scientist, UCSF, with Dr. William DeGrado)

2012-present Inny Lekova, Cell and Molecular Biology
2013-present Chia-Yu Chung, Cell and Molecular Biology
2013-present Lindsey Goodman, Neuroscience
2014-present Janani Saikumar, Biology (HHMI International Predoctoral Fellowship Awardee)
2015-present Ananth Srinivasan, Biology

Undergraduate students:

1994-1997 Stacey Pusin
1995-1996 Sunil Mehta
1995-1996 Grace Kao (Vagelos Scholar)
1995 Kathryn Assad
1998 Eric Yecies
2003-2005 Yuanxiang Liu (Vagelos Scholar)
2003-2005 Rachel Bernstein (Vagelos Scholar)
2007-2009 Liane Toohey (Vagelos Scholar)
2008-2010 Michelle Min (Vagelos Scholar)
2010-2013 Rosaline Zhang (Vagelos Scholar)
2012-2013 Chang Su
2012-2014 Van Tran (Vagelos Scholar)
2013-2015 Jesi Kim

2013-present Ashley Sartoris (Vagelos Scholar)
2014-present Matthew Lan (Vagelos Scholar)
2014-present Henry Zhou (Vagelos Scholar, Provost Award)

Visiting Scientists:

2000 Dr. Michael Atchison, Associate Professor, Head, Laboratories of Biochemistry, Dept of Animal Biology, School of Veterinary Medicine, University of Pennsylvania
2011-2012 Dr. Robert Fairman, Professor of Biology, Haverford University

EDUCATIONAL MISSION TO THE UNIVERSITY:

1994-1997 (fall)	Biology 101: Introductory Biology, Course Co-Director (~200 students)
1996-2000 (sp)	Biology 540: Genetic systems (~30 students), Course Developer & Director
2000	Co-Developer Biology special concentration "neurobiology"
1994-present	Biol399/499 Undergraduate Independent Study (5-10 students sponsored/ semester)
1994-present	Biology Undergraduate Advisor
1999-present (fall)	Biology 221: Molecular Biology and Genetics (~100-200 students), Course Co-Director, 1999-2015 spring, 2015 fall – present.
2004-present (fall)	Biology 527: Advanced Molecular Biology and Genetics (~10 students), Bio 221 lectures, plus additional reading & writing assignments
2014-present (fall)	Biology 466: Molecular Genetics of Neurological Disease (~20 students), Course Developer & Director
2014-present	Developer & Director of Biology special concentration "Mechanisms of Disease"

Lectures in various courses, including the following:
Biol 122: Living systems (~150 students)
Biol 254: Developmental Biology (~30 students)
Biol 421: Molecular Genetics (~ 30 students)
Biol 488/Neurosci 578: Advanced Topics in Behavioral Genetics (~20 students)
Biol 526: Principles of Genetics (~30 students)
Biol 540: Genetic Systems (~35 students)
Biol 999 Independent Study: (1 student at a time, with selected topics and papers)
CAMB 511: Principles of Development (~30 students)
CAMB 542: Topics in Molecular Medicine (~30 students)
CAMB 615: Protein Conformation Diseases (~15 students)
Cell 620: Developmental Biology (~15 students)
Coll 100: "How do you know?" (~50 students)
HSOC 241/STSC 241- Stem cells, science and society (~ 30 students)
Molecular Biology 605: Post-transcriptional Regulation in Development (~30 students)
Neuroscience 597: Developmental Neurobiology (~30 students)
Neuroscience Core I, INSC 571: Cell and Molecular Neuroscience (~30 students)
Neuroscience INSC 600-601: Neurobiology of Disease (~ 10 students)
Neuroscience Seminar Course (~15 students)
INSC Basic Skills/Journal Club Course (~30 students)

Graduate Group Memberships:

1994-present	Biology Graduate Group
1996-2003	Cell and Molecular Biology Graduate Group
1996-2005	Vision Center member and Faculty Trainer of Vision Training Grant,
1996-present	Neuroscience Graduate Group, University of Pennsylvania
2012-present	Cell and Molecular Biology Graduate Group

PATENTS AND DISCLOSURES:
US patent Application No 12/965,618, July 2011, UPenn Docket No W5390US
Compositions and methods for the diagnosis and treatment of Amyotrophic Lateral Sclerosis
US patent Application/not being pursued NO. 61/547,594, Oct 2012, UPenn Y6028.
Trimmer-mediated microRNA processing
Disclosure Reference Y6128, Dec 2011
Novel fly wing model for acute neural injury.
Disclosure Reference X5985, June 2011
miR-34 modulation with anti-aging and anti-neurodegenerative therapeutic applications

PUBLICATIONS (*non-peer-reviewed):

As an undergraduate:

1. Tempel BL, Bonini NM, Dawson DR, and Quinn WG (1983) Reward learning in normal and mutant *Drosophila*. Proc. Natl. Acad. Sci. USA 80:1482-1486.

As a graduate student:

2. Bonini NM, Gustin MC and Nelson DL (1986) Regulation of ciliary motility by membrane potential in *Paramecium*: A role for cyclic AMP. Cell Motil. Cytoskeleton 6:256-272.
3. Bonini NM and Nelson DL (1988) Differential regulation of *Paramecium* ciliary motility by cAMP and cGMP. J. Cell Biol. 106:1615-1623.
4. Bonini NM and Nelson DL (1990) Phosphoproteins associated with cyclic nucleotide stimulation of ciliary motility in *Paramecium*. J Cell Science 95:219-230.
5. *Bonini NM, Evans TC, Miglietta LAP, and Nelson DL (1991) The regulation of ciliary motility in *Paramecium* by Ca^{2+} and cyclic nucleotides. Advances in Second Messenger and Phosphoprotein Research. Vol. 23: 227-272.
6. Bonini NM, Leiserson WM, and Benzer S (1993) The *eyes absent* gene: genetic control of cell survival and differentiation in the developing Drosophila eye. Cell 72:379-395.
7. Leiserson WM, Bonini NM and Benzer S (1994) Transvection at the *eyes absent* gene of *Drosophila*. Genetics 138:1171-1179.

As a Principal Investigator:

8. *Bonini NM and Choi K-W (1995) Early decisions in *Drosophila* eye morphogenesis. Current Opinion in Genetics and Development 5: 507-515.
9. *Bonini NM (1997) Surviving *Drosophila* eye development. Cell Death & Differentiation 4:4-11.
10. Zimmerman J, Bui Q, Steingrimmson E, Nagle DL, Fu W, Genin A, Spinner N, Copeland NG, Jenkins NA, Bucan M, and Bonini NM. (1997) Cloning and characterization of two vertebrate homologs of the *Drosophila eyes absent* gene. Genome Research 7:128-141.
11. Boyle M, Bonini N and DiNardo S. (1997) Expression and function of *clift* in the development of somatic gonadal precursors within the Drosophila mesoderm. Development 124:971-982.
12. Bonini NM, Bui QT, Gray-Board GL and Warrick JM (1997) The *Drosophila eyes absent* gene directs ectopic eye formation in a pathway conserved between flies and vertebrates. Development 124: 4819-4826.
13. Bonini NM, Leiserson WM and Benzer S. (1998) Expression and multiple roles of the *eyes absent* gene in *Drosophila*. Developmental Biology, 129: 42-57.
14. Leiserson WM, Benzer S and Bonini NM. (1998) Dual functions of the *Drosophila eyes absent* gene in the eye and embryo. Mechanisms of Development 73:193-202.
15. Warrick JM, Paulson H, Gray-Board GL, Bui QT, Fischbeck K, Pittman RN, and Bonini NM. (1998) Expanded polyglutamine protein forms nuclear inclusions and causes neural degeneration in *Drosophila*. Cell 93: 939-949.
16. Perez MK, Paulson HL, Pendse SJ, Saionz SJ, Bonini NM and Pittman RN (1998) Recruitment and the role of nuclear localization in polyglutamine-mediated aggregation. J Cell Biol 143: 1457-1470.
17. *Bonini NM (1999) A genetic model for human polyglutamine-repeat disease in *Drosophila melanogaster*. Phil. Trans. R. Soc. Lond. B 354: 1057-1060.
18. Bonini NM and Fortini, ME (1999) Survival during *Drosophila* eye development: Integrating cell death with cell differentiation during formation of a neural structure. BioEssays 21: 991-1003.

19. Zimmerman J, Bui Q, Liu H, and Bonini NM (1999) Molecular genetic analysis of Drosophila *eye absent* mutants reveals features critical for eye cell expression. Genetics, 154: 237-246.

20. Chai Y, Koppenhafer SL, Bonini NM and Paulson HL (1999) Analysis of the role of heat shock protein (Hsp) molecular chaperones in polyglutamine disease. J Neuroscience, 19: 10338-10347.

21. Warrick J, Chan HYE, Gray-Board GL, Paulson H and Bonini NM (1999) Suppression of polyglutamine disease in *Drosophila* by the molecular chaperone hsp70. Nature Genetics, 23: 425-428.

22. Fortini ME and Bonini NM (2000) Modeling human neurodegenerative diseases in *Drosophila*: on a wing and a prayer. Trends in Genetics 16: 161-167.

23. *Bonini NM (2000) *Drosophila* as a genetic tool to define vertebrate pathway players. Methods Mol Biol. 136:7-14.

24. *Bonini NM (2000) Methods to detect patterns of cell death in *Drosophila*. Methods Mol Biol. 136:115-21.

25. Bui QT, Zimmerman JE, Liu H, Gray-Board GL and Bonini NM. (2000) Functional analysis of an eye enhancer of the *Drosophila eyes absent* gene: Differential regulation by eye specification genes. Dev Biol 221: 355-364.

26. Bui QT, Zimmerman JE, Liu H and Bonini NM. (2000) *Drosophila eyes absent* mutants reveal functional subdomains within the conserved Eya domain. Genetics 155: 709-720.

27. *Paulson H and Bonini NM. (2000) Spinocerebellar ataxia type 3. Neuroscience News 3:87-93.

28. Chan HYE and Bonini NM. (2000) Neuropathological Cell death in *Drosophila*. Cell Death Differ. 7: 1075-1080.

29. Chan HYE, Warrick JM, Gray-Board GL, Paulson HL and Bonini NM (2000) Mechanisms of chaperone suppression of polyglutamine disease: selectivity, synergy, and modulation of protein solubility in *Drosophila*. Hum Mol Genetics 9:2811-2820.

30. *Paulson HL, Bonini NM and Roth KA (2000) Polyglutamine disease and neuronal cell death. Proc. Natl. Acad. Sci. USA 97: 12957-12958.

31. *Bonini NM. (2001) *Drosophila* as a genetic approach to human neurodegenerative disease. Parkinsonism Relat. Disord. 7:171-175

32. *Bonini NM (2001) A genetic model for human polyglutamine-repeat disease in *Drosophila melanogaster*. In Glutamine repeats and neurodegenerative diseases: molecular aspects, edited by Prof. P.S. Harper and Dr. M. Perutz, Oxford University Press.

33. *Bonini, NM (2001) Stores to die for. Developmental Cell 1:447-448.

34. *Bonini NM and Fortini ME (2002) "Applications: Models for Human Disease" pp. 257-275 in Drosophila Eye Development, K Moses editor, Springer-Verlag, Berlin.

35. *Chan HYE and Bonini NM (2002) *Drosophila* models of polyglutamine diseases, pp. 241-251 in *Methods in Molecular Biology, vol 217: Neurogenetics: Methods and Protocols*, Potter NT, editor.

36. Auluck PK, Chan HYE, Trojanowski JQ, Lee VML and Bonini NM (2002) Chaperone Suppression of α-Synuclein Toxicity in a *Drosophila* Model for Parkinson's Disease. Online 1067389. Science 295:865-868.
[Publication highlighted in Science Perspectives in the same issue, Science 295: 809-10].

37. Bonini NM (2002) Chaperoning brain degeneration. Proc. Natl. Acad. Sci. USA 99: 16407-16411

38. Chan HYE, Warrick JM, Andriola I, Merry D, and Bonini NM (2002) Genetic modulation of polyglutamine toxicity by protein conjugation pathways in *Drosophila*. Human Molecular Genetics 11: 2895-2904.

39. Auluck PK and Bonini NM (2002) Pharmacologic Prevention of Parkinson's disease in *Drosophila*. Nature Medicine 8:1185-1186.

40. Atchison L, Ghias A, Wilkinson F, Bonini N and Atchison ML (2003) Transcription factor YY1 functions as a PcG Protein in vivo. EMBO J. 22:1347-58.

41. *Bonini NM and Fortini ME (2003) Human neurodegenerative disease modeling using *Drosophila*. Ann. Rev. Neurosci. 26:627-56. Epub 2003 Apr 10.

42. Gunawardena S, Her LS, Brusch RG, Laymon RA, Niesman IR, Gordesky-Gold B, Sintasath L, Bonini NM, Goldstein LS (2003) Disruption of axonal transport by loss of huntingtin or expression of pathogenic polyQ proteins in Drosophila. Neuron 40: 25-40.
[Publication highlighted in news and views articles: Love, R (2003) The Lancet Neurology, Vol 2: 651; Feany and LaSpada (2003) Neuron 40: 1-2]

43. Auluck PK, Meulener MC and Bonini NM (2005) Mechanisms of suppression of alpha-synuclein neurotoxicity by geldanamycin in Drosophila. J Biol Chem. 280: 2873-8. Epub 2004 Nov 18.

44. Warrick JM, Gordesky-Gold B, Morabito L, Faust L, Paulson HL, and Bonini NM. (2005) Ataxin-3 suppresses polyglutamine neurodegeneration in *Drosophila* by a ubiquitin-associated mechanism. Molecular Cell 18: 37-48.

45. Meulener MC, Graves CL, Sampathu DM, Armstrong-Gold CE, Bonini NM and Giasson BL. (2005) DJ-1 is present in a large molecular complex in human brain tissue and interacts with alpha-synuclein. J. Neurochemistry 93: 1524-32.

46. Bilen J and Bonini NM (2005) *Drosophila* models of human age associated neuro-degenerative diseases. Ann. Rev. Genetics 39: 153-171.

47. *Bonini NM and Giasson BI (2005) Snaring the function of alpha-synuclein. Cell 123: 359-361.

48. Meulener M, Whitworth AJ, Armstrong-Gold CE, Rizzu P, Heutink P, Wes PD, Pallanck LJ, Bonini NM (2005) Drosophila DJ-1 mutants are selectively sensitive to environmental toxins with Parkinson's disease. Curr Biol 15: 157207.
[Publication highlighted in Nature Reviews Genetics, among other journals]

49. Bonini NM and LaSpada AR (2005) Silencing polyglutamine degeneration with RNAi. Neuron 48: 715-8.

50. Giasson BI, Covy JP, Bonini NM, Hurtig HI, Farrer MJ, Trojanowski JQ, Van Deerlin VM (2006) Biochemical and pathological characterization of Lrrk2. Ann. Neurol. 59: 315-322.

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