

**BIOGRAPHICAL SKETCH**

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NAME Anne Church Hart	POSITION TITLE Associate Professor, Brown University		
eRA COMMONS USER NAME (credential, e.g., agency login)			
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	MM/YY	FIELD OF STUDY
Michigan State University (E. Lansing, MI)	B.S.	1983-1985	Biochemistry
Univ. of California, Los Angeles (CA)	Ph.D.	1987-1992	Neuroscience
Mass. General Hospital (Boston, MA)	-	1993-1996	-

**A. Personal Statement**

My laboratory continues to use the nematode *C. elegans* to delineate 1) conserved molecular and cellular sensory mechanisms and 2) pathological mechanisms underlying neurodegenerative disease. I served as a mentor and advisor for four Ph.D. dissertation projects at Harvard Medical School where the graduate students honored me with an award for mentoring. Multiple post-doctoral fellows and graduate students from my laboratory now run independent research laboratories. I have also served as an advisor to numerous undergraduate students from Brown, Harvard, MIT, Tufts and Bath University.

**B. Positions and Honors**

1993-1996 Postdoctoral Research Fellow in Molecular Biology; Mass. General Hospital and Postdoctoral Research Fellow in Genetics; Harvard Medical School; Boston, MA  
1996-2005 Assistant Professor, Dept. of Pathology, Harvard Medical School, Boston, MA  
1996-2006 Assistant Geneticist in Medicine, Mass. General Hospital, Boston, MA  
1996-2009 Affiliate Professor in Neuroscience, Harvard Medical School, Boston, MA  
2006-2009 Associate Geneticist in Medicine, Mass. General Hospital, Boston, MA  
2005-2009 Associate Professor, Dept. of Pathology, Harvard Medical School, Boston, MA  
2009-date Associate Professor, Department of Neuroscience, Brown University, Providence, RI  
Affiliate of Center for Cancer Research, Mass. General Hospital, Boston, MA

1985-1989 ARCS Scholar and Ursula Mandel Scholar, UCLA.  
1988-1991 NRSA Traineeship, Genetics Training Grant, UCLA.  
1993-1995 Muscular Dystrophy Assoc. Postdoctoral Fellowship.  
1995-1996 Medical Foundation Postdoctoral Fellowship.  
1997-2000 Whitehall Foundation Award.  
1998 Co-organizer East Coast *C. elegans* meeting  
1998-2000 Basil O'Connor Award, March of Dimes Foundation  
1998-2001 Searle Scholar Program Award  
1999-2003 MBL Neurobiology course, Resident faculty  
2002-2003 MBL Neurobiology course, Co-director and resident faculty, Molecular Section  
2004 Society for Neuroscience, Education Committee  
2002 Harvard Medical School BBS Graduate Program Award for Mentoring  
2007 AFAR National Scientific Advisory Council  
2007 Co-organizer (with Dr. V. Ambros), International *C. elegans* meeting

2007-date PLoS One Editorial Board

2008-date MBL Neural Systems and Behavior course, Resident faculty

2008-2009 Harvard Medical School BBS Graduate Program PQE Steering Committee

2008-date Invertebrate Neuroscience Editorial Board

2008-2009 Co-chair, Subcommittee on Review of Research Proposals, Mass. General Hospital

2009 Organizing Committee, International Notch and International *C. elegans* Meetings

2010-date California State University, San Bernardino *MARC (Minority Access Research Careers)* program

2010-date Northeastern University, ADVANCE mentor

### C. Selected Peer-reviewed Publications

Guo ZV, Hart AC, Ramanathan S Optical interrogation of neural circuits in *Caenorhabditis elegans* **Nature Methods** 2009 6: 891-96. PMID: 19898486

Jeong H, Then F, Savas J, Tanese N., Hart AC, Krainc D Acetylation Targets Mutant Huntingtin to Autophagosomes for Degredation Huntington's Disease. **Cell** 2009 137(1):60-72. PMID: 19345187

Chang HC-H, Dimlich DN, Yokokura T, Mukherjee A, Kankel MW, Sen A, Sridhar V, Fulga TA, Hart, AC, Van Vactor D, Artavanis-Tsakonas S Modeling Spinal Muscular Atrophy in *Drosophila* 2008 **PLoS ONE** 3(9):e3209 PMID: 18791638

Komatsu H, Chao MC, Larkins-Ford J, Corkins ME, Somers GA, Tucey T, Dionne HM, White JQ, Wani K, Boxem M, Hart AC OSM-11 facilitates LIN-12 Notch signaling during *C. elegans* vulval development 2008 **PLoS Biology** 6(8):e196. PMID: 18700817

Ferkey D, Hyde R, Haspel G, Dionne HM, Hess HA, Suzuki H, Schafer WR, Koelle MR, Hart AC *C. elegans* G Protein Regulator RGS-3 Controls Sensitivity to Sensory Stimuli 2007 **Neuron** 53(1):39-5. PMID: 17196529

Voisine C, Varma H, Walker N, Bates EA, Stockwell BR and Hart AC 2007 Identification of Potential Therapeutic Drugs for Huntington's Disease using *Caenorhabditis elegans* **PLoS ONE** 6:e504 (ACS Chemical Biology Spotlight paper). PMID: 17551584

Varma H, Cheng R, Voisine C, Hart AC, Stockwell BR 2007 Inhibitors of metabolism rescue cell death in Huntington's disease models **PNAS** 104(36):14525-30

Varma H, Voisine C, De Marco CT, Cattaneo E, Lo DC, Hart AC, Stockwell BR 2006 Selective inhibitors of death in mutant huntingtin cells **Nature Chemical Biology** 3(2):99-100.

E.A. Bates, M. Victor, M.J. Alkema, A.K. Jones, Y. Shi, H.R. Horvitz, and A.C. Hart. 2006. Differential contributions of *Caenorhabditis elegans* histone deacetylases to huntingtin polyglutamine toxicity. **Journal of Neuroscience** 26: 2830-2838. PMID: 16525063

M.Y. Chao, J. Larkins-Ford, T.M. Tucey, and A.C. Hart. 2005. *lin-12* Notch functions in the adult nervous system. **BMC Neuroscience** 6:45. PMID: 16011804

M.Y. Chao, H. Komatsu, and A.C. Hart. 2004. Feeding status and serotonin rapidly and reversibly modulate a *C. elegans* chemosensory circuit. **PNAS** 101:15512-17 (**PNAS Track II**) PMID: 15492222

H.S. Fukuto, D.M. Ferkey, A.J. Apicella, H. Lans, T. Sharmeen, W. Chen, R.J. Lefkowitz, G. Jansen, W.R. Schafer, and A.C. Hart. 2004. G Protein-Coupled Receptor Kinase Function Is Essential for Chemosensation in *C. elegans*. **Neuron** 42: 581-593. PMID: 15157420

Program Director/Principal Investigator (Last, First, Middle):

P.W. Faber, C. Voisine, D.C. King, E. A. Bates, and A.C. Hart. 2002. Glutamine/proline-rich PQE-1 proteins protect *C. elegans* neurons from huntingtin polyglutamine neurotoxicity. **PNAS** 99:17131-17136. **(PNAS Track II)** PMID: 12486229

A.N. Nathoo, R.A. Moeller, B.A. Westlund, and A.C. Hart. 2001. Identification of *neuropeptide-like protein* gene families in *Caenorhabditis elegans* and other species. **PNAS** 98:14000-14005. **(PNAS Track II)** PMID: 11717458

P.W. Faber, J. Alter, M.E. McDonald and A.C. Hart. 1999. Polyglutamine-mediated dysfunction and apoptotic death of a *C. elegans* sensory neuron. **PNAS** 96:179-184. **(PNAS Track II)** PMID: 9874792