

**1. Kimberly L. Mowry**

Professor  
Department of Molecular Biology, Cell Biology & Biochemistry

**2. Address**

Box G-L268, Brown University  
Providence, RI 02912

**3. Education**

1980 B.A. Biochemistry  
University of California at Berkeley, Berkeley, CA

1988 Ph.D. Molecular Biophysics & Biochemistry  
Yale University, New Haven, CT  
Dissertation Title: *Studies on 3' Processing of Histone Premessenger RNAs and the Mammalian U7 snRNP*

**4. Professional Appointments**

1981-1988 Graduate Student, Laboratory of Dr. Joan A. Steitz  
Department of Molecular Biophysics and Biochemistry  
Yale University, New Haven, CT

1988-1992 Postdoctoral Fellow, Laboratory of Dr. Douglas A. Melton  
Department of Biochemistry and Molecular Biology  
Harvard University, Cambridge, MA

1992-1999 Assistant Professor of Biology  
Department of Molecular Biology, Cell Biology & Biochemistry  
Brown University, Providence, RI

1999-2005 Associate Professor of Biology (tenured)  
Department of Molecular Biology, Cell Biology & Biochemistry  
Brown University, Providence, RI

2005-present Professor, Department of Molecular Biology, Cell Biology &  
Biochemistry  
Brown University, Providence, RI

2009-present Chair, Department of Molecular Biology, Cell Biology & Biochemistry  
Brown University, Providence, RI

2009-present Robin Chemers Neustein Professor of Biomedicine  
Brown University, Providence, RI

**5. Completed Publications**

***Refereed Journal Articles***

Wang, E.A., Mowry, K.L., Clegg, D.O., and Koshland, D.E. (1982). Tandem duplication and multiple functions of a receptor gene in bacterial chemotaxis. *J. Biol. Chem.* **257**: 4673-4676.

Mowry, K.L. and Steitz, J.A. (1987). Both conserved signals on mammalian histone premessenger RNAs associate with small nuclear ribonucleoproteins during 3' end formation in vitro. *Mol. Cell. Biol.* **7**: 1663-1672.

- Mowry, K.L. and Steitz, J.A. (1987). Identification of the human U7 snRNP as one of several factors involved in the 3' end maturation of histone premessenger RNAs. *Science* **238**: 1682-1687.
- Mowry, K.L., Oh, R., and Steitz, J.A. (1989). Each of the conserved sequence elements flanking the cleavage site of mammalian histone pre-mRNAs has a distinct role in the 3'-end processing reaction. *Mol. Cell. Biol.* **9**: 3105-3108.
- Mowry, K.L., and Melton, D.A. (1992). Vegetal localization directed by a 340-nt RNA sequence element in *Xenopus* oocytes. *Science* **255**: 991-994.
- Mowry, K.L. (1996). Complex formation between stage-specific oocyte factors and a *Xenopus* mRNA localization element. *Proc. Natl. Acad. Sci. USA* **93**: 14608-14613.
- Valles, J.M., Lin, K., Denegre, J.M., and Mowry, K.L. (1997). Stable magnetic field gradient levitation of *Xenopus laevis*: Towards low gravity simulation. *Biophys. J.* **73**: 1130-1133.
- Gautreau, D., Cote, C.A. and Mowry, K.L. (1997). Two copies of a sub-element from the Vg1 RNA localization sequence are sufficient to direct vegetal localization in *Xenopus* oocytes. *Development* **124**: 5013-5020.
- Denegre, J.M., Ludwig, E.R., and Mowry, K.L. (1997). Localized maternal proteins in *Xenopus* revealed by subtractive immunization. *Dev. Biol.* **192**: 446-454.
- Denegre, J.M., Lin, K., Valles, J.M., and Mowry, K.L. (1998). Cleavage planes in frog eggs altered by strong magnetic fields. *Proc. Natl. Acad. Sci. USA* **95**: 14729-14732.
- Cote, C.A., Gautreau, D., Denegre, J.M., Kress, T.L., Terry, N.A., and Mowry, K.L. (1999) A *Xenopus* protein related to hnRNP I has a role in cytoplasmic RNA localization. *Mol. Cell* **4**: 431-437.
- Valles, J.M., Wasserman, S., Denegre, J.M. and Mowry, K.L. (2000) Microscope system for use in high magnetic fields. *Rev. Sci. Instrum.* **71**: 3108-3110.
- Valles, J.M., Wasserman, S.R.R.M., Schweidenback, C., Denegre, J.M., and Mowry, K.L. (2002) Processes that occur before second cleavage determine third cleavage orientation. *Exp. Cell Res.* **274**: 112-118.
- Bubuneko\*, M., Kress\*, T.L., Vempati, U.D., Mowry, K.L., and King, M.L. (2002) A consensus RNA signal that directs germ layer determinants to the vegetal cortex of *Xenopus* oocytes. *Dev. Biol.* **248**:82-92. \*co-first authors, T.L. Kress was my student
- Volodina, N. Denegre, J.M. and Mowry, K.L. (2003) Apparent mitochondrial assymetry in *Xenopus* eggs. *Dev. Dyn.* **226**: 654-662.
- Xie, J., Lee, J-A., Kress, T.L., Mowry, K.L. and Black, D.L. (2003) Protein kinase A phosphorylation modulates transport of the polypyrimidine tract-binding protein. *Proc. Natl. Acad. Sci. USA* **100**: 8776-8781.
- Lewis, R.A., Kress, T.L., Cote, C.A., Rokop, M., Gautreau, D. and Mowry, K.L. (2004) Conserved and clustered RNA recognition sequences are critical features of signals directing RNA localization in *Xenopus* oocytes. *Mech. Dev.* **121**: 101-109.
- Kress, T.L., Yoon, Y.J. and Mowry, K.L. (2004) Nuclear RNP complex assembly initiates cytoplasmic RNA localization. *J. Cell Biol.* **165**: 203-211.
- Yoon, Y.J. and Mowry, K.L. (2004) *Xenopus* Staufen is a component of an RNP complex containing Vg1 RNA and kinesin. *Development* **131**: 3035-3045.

- Chang, P., Torres, J., Lewis, R.A., Mowry, K.L., Houliston, E. and King, M.L. (2004) Localization of RNAs to the mitochondrial cloud in *Xenopus* oocytes by entrapment and association with endoplasmic reticulum. *Mol. Biol. Cell* **15**: 4669-4681.
- Lewis, R.A. and Mowry, K.L. (2007) RNP remodeling during RNA localization. *Differentiation* **75**: 507-518.
- Lewis, R.A., Gagnon, J.G. and Mowry, K.L. (2008) PTB/hnRNP I is required for RNP remodeling during RNA localization in *Xenopus* oocytes. *Mol. Cell Biol.* **28**: 678-686.
- Messitt, T.J., Gagnon, J.A., Kreiling, J.A., Pratt, C.A., Yoon, Y.J. and Mowry, K.L. (2008) Multiple kinesin motors coordinate cytoplasmic RNA transport on a sub-population of microtubules in *Xenopus* oocytes. *Dev. Cell* **15**: 426-436.
- Gagnon JA, Mowry KL. (2010) Visualizing RNA localization in *Xenopus* oocytes. *J. Vis. Exp.* 35: 1704.
- Pratt, C.A. and Mowry, K.L. (2010) Preparation of a highly active cell-free translation system from immature *Xenopus laevis* oocytes. *Methods* **51**: 101-105.
- Gagnon, J.A. and Mowry, K.L. (2010) Visualization of RNA localization in *Xenopus* oocytes. *Meth. Mol. Biol.* **714**:71-82.
- Gagnon JA, Mowry KL. (2011) Molecular motors: Directing traffic during RNA localization. *Crit. Rev. Biochem. Mol. Biol.* **46**: 71-82
- Gagnon, J.A., Kreiling, J.A. and Mowry, K.L. Directional transport mediated by a dynein-dependent step in an RNA localization pathway. Submitted.

### **Non-refereed Publications**

- Mowry, K.L. and Steitz, J.A. (1988). SnRNP mediators of 3' end processing: Functional fossils? *Trends Biochem. Sci.* **13**: 447-451.
- Mowry, K.L. and Cote, C.A. (1999). RNA sorting in *Xenopus* oocytes and embryos. *FASEB J.* **13**: 435-445.
- King, M.L., Messitt, T.J. and Mowry, K.L. (2005). Putting RNAs in the right place at the right time: RNA localization in the frog oocyte. *Biol. Cell.* **97**: 19-33.
- Gagnon, J.A. and Mowry, K.L. (2009) RNA transport *in ovo*: Simultaneous visualization of two RNAs. *Mol. Reprod. Dev.* **76**: 1115.

### **Book Chapters**

- Mowry, K.L. RNA recognition during localization. (1995) In: *Localized RNAs*, H.D. Lipshitz ed., R.G. Landes (Austin) pp. 301-317.

### **Abstracts**

- Gautreau, D. and Mowry, K.L. (1995) Cis- and trans-factors with potential roles in Vg1 RNA localization in *Xenopus* oocytes. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by K.L.M.
- Gautreau, D. and Mowry, K.L. (1995) Two copies of a sub-element from the Vg1 RNA localization sequence direct vegetal localization in *Xenopus* oocytes. Gordon Conference on Developmental Biology; Andover, NH. Poster presentation by K.L.M.

- Denegre, J.M., Ludwig, E.R. and Mowry, K.L. (1996) Localized maternal proteins revealed by subtractive immunization. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Platform presentation by J. Denegre.
- Cote, C.A., Denegre, J.M. Gautreau, D. and Mowry, K.L., (1997) Cell polarity and localization in *Xenopus*. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by C. Cote.
- Cote, C.A., Gautreau, D., Terry, N.A. and Mowry, K.L. (1998) VgRBP60: An RNA binding protein with an essential role in Vg1 RNA localization. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Platform presentation by C. Cote.
- Denegre, J.M. and Mowry, K.L. (1998) Dynamic localization of maternal proteins in *Xenopus* oocytes, induced by maturation. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by J. Denegre.
- Volodina, N., Denegre, J.M. and Mowry, K.L. (1999) Maturation induced localization of maternal protein. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by N. Volodina.
- Denegre, J.M., Cote, C.A., Gautreau, D., Kress, T.L., Terry, N.A. and Mowry, K.L. (1999) A *Xenopus* protein related to hnRNP I has an essential role in Vg1 RNA localization. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Platform presentation by J. Denegre.
- Kress, T.L., Cote, C.A., Gautreau, D., Denegre, J.M. and Mowry, K.L. (2000) Do nuclear proteins promote cytoplasmic RNA transport? Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by T. Kress.
- Volodina, N., Denegre, J.M. and Mowry, K.L. (2000) Vp67 is a maternal protein that is localized to the vegetal cortex in *Xenopus* eggs. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by J. Denegre and N. Volodina.
- Kress, T.L. and Mowry, K.L. (2000) Do nuclear proteins promote cytoplasmic RNA transport? Nucleic Acids Gordon Conference; Newport, RI. Poster presentation by T. Kress.
- Yoon, Y.J. and Mowry, K.L. (2001) Analysis of *Xenopus* Staufen-containing ribonucleoprotein complexes in oocytes. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by Y.J. Yoon.
- Kress, T.L., Bubunencko, M., Vempati, U.D., King, M.L. and Mowry, K.L. (2002) Comparison of vegetal mRNA localization: Is there a common machinery? RNA 2002: Seventh Annual Meeting of the RNA Society; Madison, WI. Poster presentation by T. Kress.
- Yoon, Y.J. and Mowry, K.L. (2003) Association between a double-stranded RNA-binding protein, Staufen and and kinesin. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Poster presentation by Y.J. Yoon.
- Messitt, T.J. and Mowry, K.L. (2003) Translational control of Vg1 mRNA expression. FASEB Conference on Intracellular RNA Sorting, Transport & Localization; Snowmass, CO. Poster presentation by T. Messitt.

- Lewis, R.A. and Mowry, K.L. (2003) Assembly of the Vg1 RNA localization complex: RNP nucleation by nuclear factors. FASEB Conference on Intracellular RNA Sorting, Transport & Localization; Snowmass, CO. Poster presentation by R. Lewis.
- Yoon, Y.J. and Mowry, K.L. (2003) Association between a double-stranded RNA-binding protein, Staufin and kinesin. FASEB Conference on Intracellular RNA Sorting, Transport & Localization; Snowmass, CO. Poster presentation by Y. Yoon.
- Gagnon, J.A., Lewis, R., Messitt, T., Yoon, Y. and Mowry, K.L. (2005) Mechanisms directing vegetal RNA localization in the *Xenopus* oocyte. FASEB Conference on Intracellular RNA Sorting, Transport & Localization; Tucson, AZ. Poster presentation by J. Gagnon.
- Messitt, T.J., Yoon, Y.J. and Mowry, K.L. (2005) Kinesin I mediates vegetal RNA transport. 45<sup>th</sup> Annual Meeting of the American Society for Cell Biology; San Francisco, CA. Poster presentation by T.J. Messitt.
- Gagnon, J.A. and Mowry, K.L. (2007) Mechanisms directing vegetal RNA localization in the *Xenopus* oocyte. *RNA 2007: The 12<sup>th</sup> Annual Meeting of the RNA Society*; Madison, WI. Poster presentation by J.A. Gagnon.
- Pratt, C.A. and Mowry, K.L. (2008) Coordinated Cytoplasmic Localization and Translational Control of Vg1 mRNA in *Xenopus laevis* Oocytes. *RNA 2008: The 13<sup>th</sup> Annual Meeting of the RNA Society*; Berlin, Germany. Poster presentation by C.A. Pratt.
- Gagnon, J.A., Kreiling, J.A., and Mowry, K. L. (2009) Mechanisms directing localization of maternal determinants revealed by *in vivo* imaging in *Xenopus* oocytes. Northeast Regional Developmental Biology Conference; Woods Hole, MA. Oral presentation by J.A. Gagnon.
- Pratt, C.A., Gagnon, J.A., Kreiling, J.A., and Mowry, K. L. (2010) The Vg1 mRNA localization element coordinates motor-driven mRNA localization and translational control in *Xenopus laevis* oocytes. Gordon Conference on Biology of Post-Transcriptional Gene Regulation. Newport, RI. Poster presentation by C.A. Pratt.

### ***Invited Lectures***

- University of Massachusetts School of Medicine, Dept. of Cell Biology (October, 1992)
- Rhode Island College, Department of Biology (April, 1994)
- Woods Hole, Marine Biological Laboratory, Physiology Course (June, 1995)
- University of Rhode Island, Biology Colloquium (February, 1997)
- University of Pennsylvania, OB/Gyn Department (February, 1997)
- Williams College, Biology Department (December, 1998)
- Tufts University School of Medicine, Biochemistry Department (September, 1998)
- University of Nebraska Medical Center, Eppley Institute for Cancer Research (October, 1999)
- Northwestern University Medical School, Dept. of Cell & Molecular Biology (February, 2000)
- Duke University, Department of Genetics (April, 2000)
- Fox Chase Cancer Center (May, 2000)

University of Massachusetts Medical School, Dept. of Molecular Biology (January, 2001)  
Yale University School of Medicine, Symposium in Honor of J. Steitz (June, 2001)  
University of North Carolina, Department of Biochemistry & Biophysics (November, 2001)  
Medical College of Wisconsin, Department of Microbiology & Molecular Genetics (December, 2001)  
University of California at Santa Barbara, Dept. of Molecular Cellular & Developmental Biology (May, 2002)  
University of Miami Medical School, Department of Biochemistry (March, 2003)  
Yale University, Department of Molecular, Cellular and Developmental Biology (April, 2004)  
University of Pennsylvania, Department of Pharmacology (November, 2005)  
University of Wisconsin, RNA Biology Colloquium (November, 2007)  
State University of New York- Albany, Department of Biological Sciences (October, 2008)  
Albert Einstein College of Medicine, Department of Developmental and Molecular Biology (March, 2009)  
University of Pennsylvania, Department of Cell and Developmental Biology (April, 2009)  
University of California, Santa Cruz, Department of Molecular, Cell and Developmental Biology (February, 2010)  
Cincinnati Children's Hospital, Division of Developmental Biology (October, 2010).  
Princeton University, Department of Molecular Biology (November, 2010)  
University of Arizona- Tucson, Graduate Program in Cellular Biology & Anatomy (March, 2011)  
University of Texas- Austin, Institute for Cellular and Molecular Biology (March, 2011)

***Papers Read***

"RNA Localization in *Xenopus* Oocytes" Santa Cruz Summer Conference on Developmental Biology. Santa Cruz, CA; July, 1992. Invited talk.  
"RNA Localization in *Xenopus* Oocytes" 1993 Northeast Regional Developmental Biology Conference. Woods Hole, MA; March, 1993. Invited talk.  
"Cis- and Trans-Acting Factors for Vegetal RNA Localization" FASEB Conference on Cellular and Intracellular Transport of RNA. Snowmass, CO; June, 1996. Invited talk.  
"Cell Polarity and Localization in *Xenopus*" 1997 Northeast Regional Developmental Biology Conference. Woods Hole, MA; April, 1997. Invited talk.  
"VgRBP60 is an hnRNP Protein with a Role in Vg1 RNA Localization" FASEB Conference on Intracellular RNA Sorting, Transport & Localization. Snowmass, CO; June, 1998. Invited talk.  
"Cytoplasmic RNA Transport in *Xenopus* Oocytes" Nucleic Acids Gordon Conference. Newport, RI; July, 1999. Invited talk.

- “Cytoplasmic RNA Transport in *Xenopus* Oocytes” Gordon Conference on Biological Structure and Function. Meriden, NH; August, 1999. Invited talk.
- “Nuclear Proteins and Cytoplasmic RNA Localization” FASEB Conference on RNA Sorting, Transport and Localization in Differentiation and Development. Snowmass, CO; June, 2000. Invited talk.
- “Localized mRNA Expression in *Xenopus* Oocytes” EMBO Workshop on Translational Control in Neurobiology and Development. Cala Blava, Mallorca, Spain; May, 2002. Invited Talk.
- “The Vg1 Localization Pathway: From the Nucleus to the Cytoplasm and Beyond” FASEB Conference on Intracellular RNA Sorting, Transport & Localization. Snowmass, CO; June, 2003. Invited talk.
- “Mechanisms Controlling Local mRNA Expression in *Xenopus* Oocytes” Gordon Conference on Biology of Post-Transcriptional Gene Regulation. Andover, NH; August, 2004. Invited talk.
- “The Vg1 RNA localization complex: RNA and protein partners” FASEB Conference on Intracellular RNA Sorting, Transport & Localization. Tucson, AZ; June 2005. Invited talk.
- “Mechanisms Directing the Vg1 Localization Pathway” FASEB Conference on Intracellular RNA Sorting, Transport & Localization. Il Ciocco, Italy; July 2007. Invited talk.
- “RNA transport in the oocyte cytoplasm: How to get there from here” 67<sup>th</sup> Annual Meeting of the Society for Developmental Biology. Philadelphia, PA; July 2008. Invited talk.
- “Cytoplasmic RNA localization: Motors drive RNA from here to there” FASEB Conference on Intracellular RNA Sorting, Transport & Localization. Saxton’s River, VT; July 2009. Invited talk.
- “RNA Transport in the Cytoplasm: How to Get There from Here” Annual Meeting of the American Society for Biochemistry and Molecular Biology. Anaheim, CA; April 2010. Invited talk.
- “RNA Transport in the Cytoplasm: How to Get There from Here” 19<sup>th</sup> CDB Meeting; RNA Sciences in Cell and Developmental Biology. Kobe, Japan; May 2010. Invited talk.
- “Motor-driven RNA Transport in the Cytoplasm” Gordon Conference on Biology of Post-Transcriptional Gene Regulation. Newport, RI July, 2010. Invited talk.
- “Molecular Motors: Directing RNA Localization in the Cell Cytoplasm” EMBO Conference on Systems Dynamics of Intracellular Communication: Spatial 2011. Engelberg, Switzerland; May, 2011. Invited talk.
- “Directing Traffic during RNA Localization in the Cytoplasm” EMBO Conference on Intracellular RNA Localization and Localized Translation. Barga, Italy; August, 2011. Invited talk.

## 6. Research Grants

### ***Current***

National Institutes of Health (R01), 12/1/04-11/30/12

“RNA Localization in *Xenopus* Oocytes”

Principal Investigator.

National Institutes of Health (T32), 7/1/10-6/30/15

“Training in Molecular and Cell Biology and Biochemistry”

Principal Investigator.

**Completed**

National Institutes of Health (R01), 5/1/99-11/30/08

“RNA Localization in *Xenopus* Oocytes”

Principal Investigator.

National Science Foundation, 1/1/98-6/30/02

“Cell Polarity and Localized Proteins in *Xenopus*”

Principal Investigator.

National Science Foundation, 4/1/99-3/31/02

“Manipulation of Cell Division with Static Magnetic Fields”

Co-PI with J. Valles of Brown University Physics Dept.

National Institutes of Health (R01), 9/1/93-4/30/99

“RNA Localization in *Xenopus* Oocytes”

Principal Investigator.

**7. Service**

***Service to the University***

Vice-Chair, Annual Retreat for MCB Graduate Program (1993, 1995)

Biochemistry Search Committee, MCB Department (1994-1995)

Wayland Collegium, “The Physics-Biology Interface” (1995-1996)

Faculty Advisor, WISE Affinity Group Program (1997-1999)

MCB Graduate Program Admissions Committee (1997-1999)

MD-PhD Program Admissions Committee (1998-1999)

Faculty Liaison to Sheridan Center (1999-2001)

Computational Biology Search Committee, MCB Department (2000-2001)

Chair, MCB Graduate Program Admissions Committee (2000-2001)

Chair, Biochemistry Search Committee, MCB Department (2000-2001)

Search Committee for Chair of Pediatrics, Brown University Medical School (2002-2003)

MCB Department Undergraduate Curriculum Committee (2001-2004)

MCB Graduate Program Curriculum Committee (2001-2005)

Brown University Radiation Safety Committee (2000-2006)

Genetics, Genomics & Proteomics Search Committee (2003-2006)

Committee to Review Criteria for Reappointment, Promotion and Tenure in BioMed (2006-2007)

MCB Graduate Program Executive Committee (1994-1999, 2001-present)

Co-PI, MCB Graduate Program Training Grant (2001-2008)



Assistant Director, MCB Graduate Program (2003-2008)  
Committee on Medical Faculty Appointments (2006-2008)  
Vice-Chair, MCB Department (2006-2009)  
PI, MCB Graduate Program Training Grant (2008-present)  
Leadership Alliance Mentor (2009, 2011)  
Chair, MCB Department (2009-present)  
BioMed IT Advisory Committee (2009-present)  
Advisory Board, Office of Women in Medicine and Science (2009-present)

***Service to the Profession***

Session Chair, 1994 Northeast Regional Developmental Biology Conference (1994)  
Session Chair, 1997 Northeast Regional Developmental Biology Conference (1997)  
Co-organizer, 2000 Northeast Regional Developmental Biology Conference (2000)  
National Institutes of Health, CDF-1 Study Section, *ad hoc* (2001)  
National Institutes of Health, CDF-1 Study Section, member (2001-2004)  
External Review Committee, Graduate Program in Cell Biology, University of Connecticut Health Sciences Center (2002)  
Session Chair, EMBO Workshop on Translational Control in Neurobiology and Development (2002)  
Participated in the NOVA program, "The Secret of Photo 51" (2003)  
Co-chair, FASEB Conference on Intracellular RNA Sorting, Transport & Localization (2003)  
National Institutes of Health, MGC Study Section, member (2004-2005)  
Chair, FASEB Conference on Intracellular RNA Sorting, Transport & Localization (2005)  
Session Coordinator, *RNA 2006: The 11th Annual Meeting of the RNA Society* (2006)  
National Institutes of Health, MGC Study Section, *ad hoc* (2007)  
Session Chair, EMBO Workshop on Intracellular RNA Transport and Localized Translation (2007)  
Judge for oral and poster presentations, Annual Biomedical Research Conference for Minority Students (2008)  
NIH Challenge grant reviewer for BDA and CB IRGs (2009)  
Session Chair, 19<sup>th</sup> CDB Meeting; Kobe, Japan (2010)  
National Institutes of Health, BRT-A Study Section, member (2010-2014)  
Session Chair, EMBO Workshop on Intracellular RNA Transport and Localized Translation (2011)  
Peer review of grant proposals for:  
National Science Foundation, The March of Dimes, United States Israel Binational Science Foundation, The Wellcome Trust  
Peer review of manuscripts (1992-present) for journals including: *Cell, Development, Developmental Biology, Developmental Cell, Developmental Dynamics, Differentiation, EMBO Journal, Genes & Development, Journal of Biological Chemistry, Journal of Cell*

*Biology, Journal of Cell Science, Journal of Neuroscience, Mechanisms of Development, Molecular Biology of the Cell, Molecular Cell, Molecular & Cellular Biology, Nature, Nature Cell Biology, Nature Structural and Molecular Biology, Neuron, Nucleic Acids Research, PLoS Biology, Proceedings of the National Academy of Sciences, RNA, Science, and Traffic.*

External examiner on Ph.D. theses for: Harvard University, Tufts University, University of Miami, University of Toronto, University of Massachusetts Medical School

Member, American Society for Microbiology

Member, Society for Developmental Biology (1993-present)

Member, The RNA Society (1996-present)

## 8. Honors

1989-1992 Helen Hay Whitney Fellow

1992 Advanced Postdoctoral-Postresidency Fellow, American Cancer Society

1997-1998 Salomon Faculty Research Award

1997-1999 Vartan Gregorian Assistant Professor

2005 Nomination for Northeast Representative; The Society for Developmental Biology

2005-present Member, Faculty of 1000

2006 Brown University "Best of WebCT" Award

2007 Elizabeth H. Leduc Award for Excellence in Teaching in the Life Sciences

2009 Nomination for position of Secretary; The Society for Developmental Biology

2009-present Robin Chemers Neustein Professor of Biomedicine

2010 Nomination for Board of Directors; The RNA Society

## 9. Teaching (last three years)

### *Regular Courses*

Fall 2007 BI 203 Foundations for Advanced Study in Experimental Biology (9 students)  
Taught 25% of 2-credit course (with A. DeLong, J. Laney, T. Serio).  
1.43 cumulative teaching score from student critique\*.

Fall 2008 BIOL2030 Foundations for Advanced Study in Experimental Biology (8 students)  
Course Leader, taught 25% of 2-credit course (with W. Atwood, A. DeLong & W. Fairbrother).  
1.20 cumulative teaching score from student critique\*.

Fall 2009 BIOL2030 Foundations for Advanced Study in Experimental Biology (8 students)

Taught 25% of 2-credit course (with W. Fairbrother, J. Laney, T. Serio).

1.50 cumulative teaching score from student critique\*.

Spring 2011 BIOL2200B Topics in Biochemistry & Molecular Biology (3 students)

Teaching 50% of course (with J. Laney)

1.00 cumulative teaching score from student critique†.

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\* Where 1=excellent, 2=very good, 3=good, 4=fair, 5=poor

† Where 1=very effective, 2=effective, 3=somewhat effective, 4=ineffective and 5=very ineffective

### ***Independent Study (last three years)***

Spring 2009      1 undergraduate student (BIOL 1960)  
                          2 graduate students (BIOL 2960)

Summer 2009    1 undergraduate student (UTRA fellowship)  
                          2 graduate students

Fall 2009        1 undergraduate student (BIOL 1950)  
                          2 graduate students (BIOL 2950)

Spring 2010     1 undergraduate student (BIOL 1960)  
                          2 graduate students (BIOL 2960)

Fall 2010        1 undergraduate student (BIOL 1950)  
                          1 graduate student (BIOL 2950)

Spring 2011     1 undergraduate student (BIOL 1960)  
                          1 graduate student (BIOL 2960)

Summer 2011    1 undergraduate student (UTRA fellowship)  
                          3 graduate students

Fall 2011        1 undergraduate student (BIOL 1950)  
                          3 graduate students (BIOL 2950)

### ***Honors Theses***

Katherine Mitsouras; Honors, Sc.B. Biochemistry (1995)

Rumey Ishizawar; Honors, Sc.B. Biology (1996)

Linda Fu; Undergraduate, Honors Sc.B. Biology (1996)

Natalie Terry; Honors, Sc.B. Biochemistry (1998)

Megan Rokop; Honors, Sc.B. Biology (1999)

Fiona Koumoudjian; Honors, Sc.B. Biology (1999)

Jennifer Hou; Honors, Sc.B. Biochemistry (2002)

Lindsay Kuroki; Honors, Sc.B. Biology (2004)

Curtis Henn; Honors, Sc.B. Biochemistry (2005)

Aaron Prosnitz; Honors, Sc.B. Biology (2005)

Karen Kan; Honors, Sc.B. Biology (2006)

Jonathan Herman; Honors, Sc.B. Biochemistry (2007); Fulbright Award recipient  
Carly Stewart; Honors, Sc.B. Biology (2008)  
Emily Schwartz; Honors, Sc.B. Biology (2008)  
Putzer Hung; Honors, Sc.B. Biochemistry (2010)

***Master's Theses***

Joshua Farkas; Combined BS/MS (2002)

***Ph.D. Theses***

Colette Cote; Ph.D., 1998

“Critical RNA-Protein Interactions within a Vg1 RNP Transport Complex”

Natalia Volodina; Ph.D., 2001

“Isolation and Characterization of Asymmetrically Localized Antigens from *Xenopus* Oocytes and Eggs”

Tracy Kress; Ph.D., 2003

“Dynamics and Assembly of Vegetally Localized RNP Complexes in *Xenopus laevis* Oocytes”

Young Yoon; Ph.D., 2004

“Role of *Xenopus* Staufen and Kinesin 1 in Vegetal RNA localization”

Raymond Lewis; Ph.D., 2006

“RNA localization in *Xenopus* Oocytes: Assembling a Transport RNP”

Timothy Messitt; Ph.D., 2006

“Mechanisms of RNA Transport and Translational Control in the *Xenopus laevis* Oocyte”

James Gagnon; Ph.D., 2010

“Insights into Directional Motor-Driven RNA Localization from the *Xenopus* Oocyte

***Academic Advising***

Sophomore Advisor; 93/94, 97/98 (10 students)

Concentration Advisor for Biology; 1994-1999 (~25 students)

Thesis Committee for the Neuroscience Graduate Program  
(1 student current, 1 student past)

Biochemistry Concentration Committee & Advising; 1999-2006 (~60 students)

Thesis Committees for the MCB Graduate Program  
(4 students, current; 25 students, past)