CECILIA C. MELLO
Fire Lab, Pathology Department- L302
Stanford University School of Medicine
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EDUCATION

Ph.D. in Biology Feb. 2005
Johns Hopkins University, Baltimore, Maryland

Ph.D. in Biology Feb. 2005
Johns Hopkins University, Baltimore, Maryland

B.A. in Biology May 1994
Brandeis University, Waltham, Massachusetts
Dean's List

EXPERIENCE

PostDoctoral Fellow Sept. 2005- *present*
Pathology Department, Stanford University School of Medicine, Stanford, California
Laboratory of Dr. Andrew Fire

Visiting Assistant Professor Aug. 2004- May 2005
Biology Department, St. Mary's College of Maryland, St. Mary's City, Maryland
Taught Biochemistry I (lecture and lab), Genetics lab, Bioinformatics, and Biology for non-majors (lecture and lab).

Graduate Student June 1999- July 2004
Biophysics Department, Johns Hopkins University, Baltimore, Maryland
Laboratory of Dr. Doug Barrick– protein folding, repeat proteins
Thesis: *Stability and folding kinetics of the ankyrin domain of Drosophila Notch protein.*
Explored the relationship between the number or ankyrin repeats and protein stability and folding kinetics in the context of Notch ankyrin. Developed a method for measuring the stability of partly folded proteins by addition of TMAO.

Teaching assistant for Cell Biology teaching lab Jan. - May 2000
Biology Department, Johns Hopkins University, Baltimore, Maryland

Teaching assistant for Biochemistry teaching lab (*DuPont Teaching Award)* Sept. - Dec. 1999
Biology Department, Johns Hopkins University, Baltimore, Maryland

Senior Research Technician (Staff) Oct. 1995 - June 1998
Department of Biochemistry, Tufts University School of Medicine, Boston, Massachusetts
Laboratory of Dr. James Baleja– NMR, structure of papillomavirus biomolecules
Worked on developing a method of efficient isotope labeling DNA for use in structural analysis studies of DNA-protein complexes. Produced isotope-labeled, purified protein for structural studies.

Research Technician (Staff) June 1994 - Sept. 1995
Department of Biochemistry, Tufts University School of Medicine, Boston, Massachusetts
Laboratory of Dr. Peter Bullock– origins of replication in higher eukaryotes
Cloned and purified plasmid DNA for use in assays to test initiation of replication in an SV40 model system. Assisted in performing assays.

Undergraduate Researcher Sept. 1993 - May 1994
Department of Biology, Brandeis University, Waltham, Massachusetts
Laboratory of Dr. Andrew Szent-Györgyi– muscle contraction
Senior Thesis: Regulatory light chain mutants of scallop myosin for the study of cross-bridge movement.

Performed cloning, protein purification, functional assays, HPLC, DNA sequencing.

Research Assistant Jan. 1991 - May 1993
Department of Biology, Brandeis University, Waltham, Massachusetts
Laboratory of Dr. Eve Marder– modulation of neural networks
Project to determine the distribution of a neural transmitter in the crab stomach through immunocytochemical and fluorescence analysis. Performed microscopic dissections, prepared solutions, and maintained animals.

HONORS

Postdoctoral Fellowship, Tumor Biology Training Grant Apr. 2007-Apr. 2008
Stanford University School of Medicine, Stanford, California
Dean's Postdoctoral Fellowship July 2006-Apr. 2007
Stanford University School of Medicine, Stanford, California
Pre-doctoral NIH Training Grant July 1999 – June 2000
Biology Department, Johns Hopkins University, Baltimore, Maryland
DuPont Teaching Award in the Department of Biology Dec. 1999
Biology Department, Johns Hopkins University, Baltimore, Maryland
Dean's list Jan - May 1994
Brandeis University, Waltham, Massachusetts
Undergraduate Research Fellow June - Aug. 1993
Department of Biology, Brandeis University, Waltham, Massachusetts

SKILLS

C. elegans genetics and injections Quantitative thermodynamic and kinetic analysis, circular dichroism spectroscopy, stopped-flow fluorimetry, cloning, PCR, site-directed mutagenesis, DNA sequencing, restriction analysis, protein purification, functional assays, immunocytochemical and fluorescence analysis, microscopic dissections, *Drosophila* genetics.

Word, Excel, Powerpoint, DNA Strider, Kaleidagraph.

Fluent in English and Portuguese.

PUBLICATIONS

Mello, C. C., Bradley, C.M., Tripp, K.W., and Barrick, D. Experimental characterization of the folding kinetics of the notch ankyrin domain. 2005 *J. Mol. Biol.* **352**: 266-281.

Mello, C. C., and Barrick, D. 2004. An experimentally determined protein folding energy landscape. *Proc Natl Acad Sci U S A* **101:** 14102-14107.

Mello, C. C., Barrick, D. 2003. Measuring the stability of partly-folded proteins using TMAO. *Protein Science* **12**: 1522-1529.

Veeraraghavan, S., **Mello, C. C.**, Androphy, E. J. and Baleja, J. D. 1999. Structural correlates for enhanced stability in the E2 DNA- binding domain from bovine papillomavirus. *Biochemistry* **38:** 16115-16124.

Veeraraghavan, S., **Mello, C. C.**, Lee, K. M., Androphy, E. J. and Baleja, J. D. 1998. H1, N15, and C13 NMR resonance assignments for the DNA- binding domain of the BPV-1 E2 protein. *J. Biomol. NMR* **11:** 457-458.

Bullock, P. A., Joo, W. S., Sreekumar, K. R. and **Mello, C**. 1997. Initiation of SV40 DNA replication in vitro: Analysis of the role played by sequences flanking the core origin on initial synthesis events. *Virology* **227:** 460-473.

MEETINGS/ POSTERS

Mello, C. C., Liu, D, Fire,A. Mutational spectra and nucleosome positioning in worm and fish. *Bay Area Worm Meeting* — Mar. 2008

Mello, C. C., Liu, D, Fire,A. A *C. elegans*-based Ames test for the 21st century: the beginning. *16th International C. elegans Meeting* — June-July 2007

Bradley, C. M., **Mello, C. C.**, Zweifel, M., Barrick, D. A modular protein that does not fold by a downhill search. *The Seventh Hopkins Folding Meeting*. — Mar. 2003

Barrick, D., Bradley. C. M., **Mello, C. C.**, Tripp, K., Zweifel, M. Energetics of folding of a modular protein domain: origins of long-range cooperativity in the Notch ankyrin domain. *The Sixteenth Annual Gibbs Conference on Biothermodynamics*. — Sept. - Oct. 2002

Mello, C. C., Barrick, D. The relation between stability and repeat number in a structurally modular protein. *Fifteenth Annual Gibbs Conference on Biothermodynamics*. — Sept. - Oct. 2001

Mello, C. C., Barrick, D. The relation between stability and repeat number in a structurally modular protein: the Ankyrin repeats of *Drosophila* Notch *The Sixth Hopkins Folding Meeting*. — Mar. 2001