

## **Jeff Collier, Ph.D.**

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### ● **EDUCATION**

Post-doctoral

**Howard Hughes Medical Institute &  
The University of Arizona**

Department of Molecular & Cellular Biology, 2005

PhD

**The University of Wisconsin-Madison**

Cellular and Molecular Biology, 2000

BS (Hons)

**The University of Michigan**

Biochemistry, 1994

**Stockholms Universitet, Sweden**

Visiting researcher, Department of Molecular Biology, 1993

### ● **AWARDS/HONORS/FELLOWSHIPS/GRANTS**

**Howard Hughes Medical Institute Post-doctoral Fellowship**, University of Arizona, 2000 - present

**Cellular and Molecular Biology Training Grant**, University of Wisconsin, 1994-2000

**College of Arts and Sciences Honors Program Scholar**, University of Michigan, 1994  
Awarded to only five graduating seniors.

**Murchie Fund Scholarship**, University of Michigan, 1994  
Awarded to only one student in the Biology Department.

**Eugene W. Geniesse, Sr. Science Scholarship**, University of Michigan, 1993  
Awarded to only one student attending the University.

**Barbara Davis White Science Scholarship**, University of Michigan, 1993  
Awarded to only one student attending the University.

**Faculty and Staff Scholarship**, University of Michigan, 1993  
Awarded to only one student attending the University.

**Lions Research Grant**, University of Michigan, 1993

**American Legion Research Grant**, University of Michigan, 1993

**CAS Honors Program Stipend**, University of Michigan, 1993

**Biological Research Excellence Award**, University of Michigan, 1993  
Awarded to only one student in the Biology Department.

**William J. Brown Student Award**, American Society for Microbiology, 1992

**CAS Freshman/Sophomore Honors Program Scholar**, University of Michigan, 1992

**University of Michigan Scholar**, University of Michigan, 1991 & 1992

**American Legion School Award**, University of Michigan, 1990

**CAS Honors Program Scholarship**, University of Michigan, 1990  
Awarded to only ten incoming freshman from any discipline.

**Chancellor's Scholarship**, University of Michigan, 1990  
Awarded to only four incoming freshman from any discipline.

#### ● MEMBERSHIP TO PROFESSIONAL SOCIETIES

The RNA Society, 2005-present  
Faculty of 1000, 2005-present

#### ● PEER REVIEW ACTIVITIES

2005-2006  
*The RNA Journal* (5 manuscripts)  
*Molecular Biology of the Cell* (2 manuscripts)  
*Journal of Histochemistry and Cytochemistry* (1 manuscript)

#### ● STUDENT MENTORSHIP

Wenqian Hu, 2005-present (Thesis Advisor)  
Abby Shumaker, 2005-present (Committee Member)  
Ryan Strachan, 2005-present (Committee Member)  
Lucas Reineke, 2005-present (Committee Member)

#### ● PUBLICATIONS

Barbee, S., Estes, P., Cziko, AM., Luedeman, R., **Coller, J.**, Johnson, N., Howlett, I., MacDonald, P., Brand, A., Newbury, S., Levine, R., Wilhelm, J., Nakamura, A., Parker, R., and Ramaswami, R. (2005) Neuronal RNA granules and cytoplasmic processing bodies are similar in composition and function. *In preparation*

Childs, A., **Coller, J.**, Parker, R., and Gerner, E., (2005) Hypusinated eIF5A Affects Translation and Interacts with the Translation Repressor Dhh1p/RCK. *In preparation*

**Coller J.**, and Parker R. (2005) General Translational Repression by Activators of mRNA Decapping. *Cell* 122:875-886.

Press coverage associated with this article:

*Unkilling the messenger. Scientific American*, January 2006.

*P-bodies mark the spot for controlling protein production. (2005). Science* 310: 764-765

*P-bodies have a much broader role in controlling the activities of the cell than previously thought. News-Medical.Net* 27-Sep-2005

*Cellular Dumping Site Is Not Garbage After All. ScienceDaily* Sep 22, 2005

Cheng Z., **Coller J.**, Parker R., and Song H. (2005) Crystal structure of the DEAD box helicase, Dhh1p. *RNA* 11:1258-1270.

Baker K.E.\*, **Coller J.**\*, and Parker R. (2004) The yeast Apq12 protein affects nucleocytoplasmic mRNA transport. *RNA* 10:1352-1358.

\*Authors contributed equally

**Coller J.**, Tucker M., Sheth U., Valencia M., and Parker R. (2001) The DEAD box helicase, Dhh1p, functions in mRNA decapping and interacts with both the decapping and deadenylase complexes. *RNA* 12:1717-1727.

**Coller J.** (2000) Control of mRNA metabolism via the poly (A) binding protein and development of the tethered function assay. *Doctorate Thesis*, University of Wisconsin.

Gray N., **Coller J.**, Dickson K., and Wickens M. (2000) Multiple portions of poly (A) binding protein stimulate translation *in vivo* through a poly (A)-independent mechanism. *EMBO J* 19:4723-4733.

**Coller J.**, Gray N., and Wickens M. (1998) mRNA stabilization by poly (A) binding protein is independent of a poly (A) tail and requires translation. *Genes & Dev.* 12:3226-3235.

## ● REVIEWS AND CHAPTERS

**Coller J.**, and Parker R. (2004) Eukaryotic mRNA decapping. *Annu. Rev. Biochem.* 73:861-890.

**Coller J.**, and Wickens M. (2002) Tethered function assays using 3'UTRs. *Methods* 26:142-150.

## ● PRESENTATIONS AND SEMINARS

Barbee, S., Estes, P., **Coller, J.**, Johnason, N., Cziko, A., Newbury, S., Nakamura, A., Parker, R., and Ramaswami, M. (2005). A core translational control machinery shared between yeast and neurons is required for Fragile-X mediated repression. FASEB Summer Research Conference, Tucson, AZ

**Coller J.\*** (2005) Activators of mRNA decapping are general translational repressors. University of California-Santa Cruz. *\*Invited Speaker*

**Coller J.\*** (2005) Activators of mRNA decapping are general translational repressors. University of California-San Diego. *\*Invited Speaker*

**Coller J.\*** (2004) Translational repression by components of P-bodies. Sloan-Kettering Cancer Center. *\*Invited Speaker*

**Coller J.\*** (2004) Activators of mRNA decapping are translational repressors. Case Western Reserve University. *\*Invited Speaker*

**Coller J.**, and Parker R. (2004) Components of yeast P-bodies promote translational repression. FASEB Summer Research Conference, Tucson, AZ

Baker K.\*, **Coller J.\***, and Parker R. (2004) The yeast Apq12 protein affects nucleocytoplasmic mRNA transport. FASEB Summer Research Conference, Tucson, AZ  
*\*Authors contributed equally*

**Coller J.**, and Parker R. (2004) Components of yeast P-bodies promote translational repression. RNA Society Meeting, Madison, WI

Baker K.\*, **Coller J.\***, and Parker R. (2004) The yeast Apq12 protein affects nucleocytoplasmic mRNA transport. RNA Society Meeting, Madison, WI  
*\*Authors contributed equally*

**Coller J.\*** (2004) Eukaryotic mRNA decapping. 154<sup>th</sup> meeting of the Society of General Microbiology, Bath, UK  
*\*Invited Speaker*

**Coller J.**, and Parker R. (2001) Efficient mRNA decapping in yeast requires the DEAD box helicase, Dhh1p, a component of the CCR4 deadenylase complex, RNA Society Meeting, Banff, Canada

**Coller J.**, and Parker R. (2001) Efficient mRNA decapping in yeast requires the DEAD box helicase, Dhh1p, a component of the CCR4 deadenylase complex, Monod Conference, Aussois, France

Gray N., **Coller J.**, Dickson K., and Wickens M. (2000) Multiple portions of poly(A)-binding protein stimulate translation. CSHL Summer Conference on Translational Control, Cold Spring Harbor, NY

Gray N., **Coller J.**, Dickson K., and Wickens M. (2000) Multiple portions of poly(A)-binding protein stimulate translation. UK Translational Control Meeting, Cambridge, UK

Gray N., **Coller J.**, Dickson K., and Wickens M. (2000) Multiple portions of poly (A) binding protein stimulate translation *in vivo* through a poly (A)-independent mechanism. RNA Society Meeting, Madison, WI

**Coller J.**, and Wickens M. (1999) Poly (A) binding protein's function in mRNA stability and mRNA translation are genetically separable. Gordon Conference, Newport, RI

**Coller J.\***, and Wickens M. (1998) mRNA turnover in yeast and frogs. FASEB Summer Research Conference, Portland, OR  
\*Invited Speaker

**Coller J.**, Gray N., and Wickens M. (1998) mRNA stabilization by poly(A) binding protein *in vivo* is independent of a poly(A) tail and requires translation of the mRNA. RNA Society Meeting, Madison, WI

## ● **TEACHING EXPERIENCE**

*Case Western Reserve University*

**Yeast Genetics and Cell Biology** (Molecular Biology 488)

**Molecular Biology of RNA** (Biochemistry 519)

*University of Wisconsin-Madison*

**Teaching Assistant, 1998**  
*Biochemistry 511-Genomics*

**Administrative Teaching Assistant, 1997**  
*Biocore 301, Evolution, Ecology, and Genetics*

**Teaching Assistant, 1997**  
*Plant Pathology 123: Plants, Parasites, and People*

**Summer instructional course on teaching college biology, 1996, 1997**

*University of Michigan*

**Organic Chemistry Tutor, 1993**  
**Dean's Educational Committee, 1992 - 1994**

## ● REFERENCES

**Dr. Roy Parker**, Professor  
Molecular and Cellular Biology Department  
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