



Amy Cooke

University of Wisconsin Madison
Biochemistry Department
433 Babcock Dr.
Madison, WI
53706, USA
Phone: +1-608-262-0347
Email: cooke2@wisc.edu

Education and work experience

- 02/2018– present **University of Wisconsin-Madison, Madison, WI USA**
Assistant Scientist in the lab of Prof. Dr. Marvin Wickens
- 11/2011– 12/2017 **European Molecular Biology Laboratory, Heidelberg Germany**
Postdoctoral training supervised by Prof. Dr. Matthias Hentze
- 08/2005 – 04/2011 **University of Wisconsin-Madison, Madison, WI USA**
Ph.D. degree in Cellular & Molecular Biology supervised by Prof. Dr. Marvin Wickens of the Biochemistry department
Thesis: CAF1 deadenylases To deadenylate or not: that is the question
- 09/2000 – 06/2003 **University of Oregon-Eugene, Eugene, OR USA**
Bachelor of Science degree in Biochemistry

Teaching/Mentor experience

Teaching

- 09/2012 – 11/2017 **European Molecular Biology Laboratory, Heidelberg Germany**
Graduate student practical instructor for the RNA & DNA Biology Module
Teaching duties: Design and supervise laboratory practical, give an introductory presentation, instructing data analyses and directing journal club discussions.

Mentorship/student supervision

- 07/2015-09/2015 **Visiting Doctoral student**
Marcelo Perez-Pepe (Leloir Institute Foundation)
Project: Charactering the role of enzymes in translational control mechanisms.
- 08/2007-08/2010 **Undergraduate student**
Andrew Prigge (Chief resident, Children's Hospital of Philadelphia)
Project: Developing an improved tool to dissect developmental processes.

Publications

Cooke A, Schwarzl T, Huppertz I, Mantas P, Huber W, Krijgsveld J, and Hentze MW. **Being revised October 2018**. YBX3 coordinates cell size and proliferation via distinct transcriptional and post-transcriptional targets.

Holzer K, Ori A, **Cooke A**, Roessler S, DiGuilio AL, Drucker E, Andres-Pons A, Eiteneuer E, Breuhahn K, Glavy JS, Schirmacher P, Beck M, Singer S. **Under review January 2018**. Translational control by and repression of Nup155 are integral parts of the p53 pathway in liver cancer

Zhang Y*, **Cooke A***, Wickens M, Sheets MD. (2013) Bicaudal-C spatially controls translation of vertebrate maternal mRNAs. RNA. 19(11), 1575-82.

Friend K, Campbell ZT, **Cooke A**, Kroll-Conner P, Wickens M and Kimble J. (2012) A conserved PUF/Ago/eEF1A ternary complex attenuates translation elongation. NSMB. 19(2), 176-83.

Cooke A*, Prigge A*, Opperman L, Wickens M. (2011) Targeted translational regulation using the PUF scaffold. PNAS. 108(38), 15870-15875.

Cooke A, Prigge A, Wickens M. (2010) Translational repression by deadenylases. J Biol Chem. 285, 28506-13.

Watkins KP*, Kroeger TS*, **Cooke A***, Williams-Carrier RE, Friso G, Belcher SE, van Wijk KJ, Barkan A. (2007) A ribonuclease III domain protein functions in group II intron splicing in maize chloroplasts. Plant Cell. 19, 2606-23.

Ostersetzer O, **Cooke A**, Watkins KP, Barkan A. (2005), Crs1, a chloroplast group II intron splicing factor, promotes intron folding through specific interactions with two intron domains. Plant Cell. 17, 241-255.

* Indicates a co-first author.

Research Experience

02/2018-present	Department of Biochemistry, University of Wisconsin-Madison, Madison Wisconsin Assistant Scientist in the lab of Prof. Marvin Wickens <u>Focus:</u> Research in biochemistry and genomics to study RNA localization and regulation in <i>S. cerevisiae</i> , including mentoring of undergraduate and graduate students.
11/2011 – 12/2017	European Molecular Biology Laboratory, Heidelberg, Germany Postdoctoral training with Prof. Matthias Hentze <u>Focus:</u> System-wide approaches to study protein-RNA interactions and mRNA stability and translation in mammalian cell culture.
08/2005 – 10/2011	Department of Biochemistry, University of Wisconsin-Madison, Madison Wisconsin Graduate studies and bridging postdoctoral training with Prof. Marvin Wickens <u>Focus:</u> Characterizing proteins involved in mRNA regulation during development and development of improved tools.
06/2003 – 07/2005	Institute of Molecular Biology, University of Oregon, Eugene Oregon Research associate in the laboratory of Prof. Alice Barkan <u>Focus:</u> Continuation of undergraduate work and reverse genetic screening for mutants in a photosynthetic mutant library.
5/2001 – 05/2003	Institute of Molecular Biology, University of Oregon, Eugene Oregon Undergraduate research training with Prof. Alice Barkan <u>Focus:</u> Characterization of the role of nuclear proteins involved in splicing group II intron encoded in the chloroplast.

Honors & Fellowships

- 2005 – 2011 **Molecular Biosciences Training Grant**
Two years of funding for highly promising graduate students at the University of Wisconsin-Madison
- 2005 – 2011 **Advanced Opportunity Fellowship**
Two years of funding to assist students in groups underrepresented in graduate studies at the University of Wisconsin-Madison
- 2005 **Honorable mention for NSF Graduate Research Fellowship Program**
- 2003 **Biochemistry Achievement Award from the University of Oregon**
Given to one undergraduate student for outstanding performance.
- 2002 – 2003 **Women in Physical Sciences Scholarship**
Awarded to an undergraduate for excellence in studies and research towards a degree in Chemistry or Biochemistry at the University of Oregon.

Oral and Poster presentation for Scientific Conferences

Cooke A, Frese C, Schwarzl T, Huppertz I, Mantas P, Huber W, Krijgsveld J, and Hentze MW. (2017) Multiomic analyses uncovers YBX3 as a post-transcriptional regulator of amino acid import via SLC mRNA stability. Presented as a poster at the Protein Synthesis and Translational Control meeting in Heidelberg, Germany.

Cooke A, Frese C, Schwarzl T, Krijgsveld J and Hentze MW. (2016) YBX3 binds to the 3'UTR of specific SLC mRNAs and regulates protein expression through mRNA stability. Presented as poster at the Complex Life of mRNA in Heidelberg, Germany.

Cooke A, Frese C, Krijgsveld J and Hentze MW. (2015) Identification of TOP mRNA translational regulators by site-selective UV crosslinking. Presented as both an oral and poster presentation at the 20th annual RNA meeting in Madison, WI.

Cooke A and Hentze MW. (2013) Targeted Identification and Purification of TOP mRNA translational regulators. Presented as a poster at the Translational Control meeting in Heidelberg, Germany.

Cooke A, Prigge A and Wickens M. (2010) CAF1 deadenylases repress translation independent of deadenylation. Presented as a talk at the Translational Control meeting in CSH.

Cooke A and Barkan A. (2005) Involvement of an RNase III Homolog in Group II Intron Metabolism in Chloroplasts. Presented as a talk at the National Maize Meeting.