

Heather Conrad-Webb, Ph.D.
Biology, 2005

Education:

Ph.D.	1987	Genetics	Ohio State University
B.S.	1980	Biology	Baylor University

Prior Academic Employment:

1987-1994	Post-Doctoral Fellow	UT Southwestern Health Science Ctr
1994-2000	Assistant Professor	TWU
2000-current	Associate Professor	TWU

Teaching:

Undergraduate:

Molecular Cell Biology Gene Expression	BIOL 4813
Molecular Cell Gene Expression Lab	BIOL 4811
Molecular Cell Biology Genetics	BIOL 4823
Molecular Cell Genetics Lab	BIOL 4821

Graduate:

Advanced Molecular Biology	BIOL 6513
Advanced Genetics	BIOL 6734

Directed Research:

Dissertations Directed:	4	Master's Thesis Directed	3
Master's Professional Paper	3	Honor's Scholars Directed	2
Undergraduate Research Students	15 students- multiple semesters		

Research/Scholarship:

In all organisms the synthesis of rRNA is exquisitely regulated with respect to the physiological state of the cell. The novel finding that rRNA in some strains of *Saccharomyces cerevisiae* is synthesized by both RNA polymerase I (pol I) and RNA polymerase II (pol II) introduces new questions concerning the regulation of rRNA synthesis in those cells. We are investigating the control sequences and regulatory factors necessary for pol II rRNA synthesis, as well as unique functions of rRNA synthesized by pol II. We propose that pol II synthesizes rRNA during stress conditions as a backup mechanism to ensure that sufficient rRNA is available for cellular function. The long-term goal of this research is to understand the significance of rRNA synthesized by pol II and its role in cellular rRNA metabolism.

As an NSF CAREER award recipient, I developed the undergraduate series: Molecular Cell. Molecular Cell integrates the study of genetics, molecular biology and cellular biology emphasizing the interdependence of all cellular processes, problem solving and critical thinking.

Professional Service:

NSF ad hoc reviewer		2001, 2003, 2004
Texas Genetics Society	Board Member	2002-2005
Federation Molecular Biology	Program Chair,	2004-2005, 2002-2004
Federation Molecular Biology	Committee Chair	2004-2005, 2002-2004
TWU Institutional Biosafety	Committee Chair	2005
MBRS, Bridges, Honors Scholar	Mentor	1994-2005
Science Presentations at local Schools		1994-2005