

DiAnna L. Hynds, Ph.D.

Biology, 9/8/05

Education:

B.S.	1991	Biology and Math, Hillsdale College
Ph.D.	1997	Pathobiology, Ohio State University
Postdoc.	1997-2000	Neurobiology, Univ. of Kentucky Med. Ctr.

Prior Academic Employment/Employment at TWU:

1999	Adjunct Faculty	Physical Therapy, Univ. of Kentucky
2000	Adjunct Faculty	Biology, Lexington Community College
2000-2001	Research Assoc.	Anatomy and Neurobiology, Univ. Kentucky
2001-2003	Scientist III	Anatomy and Neurobiology, Univ. Kentucky
2003-Pres.	Assistant Prof.	Biology, Texas Woman's University

Teaching:

Undergraduate:

ZOOL 3123.01	Neuroanatomy	Every semester
BIOL 4681	Biology Seminar	2004-2005 Fall and Spring

Graduate:

BIOL 6334.01	Adv. Cell Biology	Spring 2004, co-taught
BIOL 6480	Systems Neurosci.	Spring 2005, co-taught at UNT
BIOL 6734.01	Adv. Genetics	Spring 2005, co-taught
BIOL 6903.01	Signal Transduction	Fall 2005

Undergrad Research Supervision:

9 students, currently supervising five (three are MBRS students)

Dissertations/Theses:

Primary advisor for 2 doctoral students and co-advisor for 1.
Currently serving on 7 doctoral committees and 1 Master's committee

Research/Scholarship:

Our research is focused on elucidating the signal transduction mechanisms that mediate axon growth and guidance in neurons. This work is important for understanding both normal neuron development as well as for developing therapeutic strategies to improve function after traumatic or neurodegenerative disease. Axon growth and guidance are mediated by rearrangements of the cytoskeleton in a specialized structure located at the tip of an extending axon called the growth cone. We are currently investigating the role that small guanine nucleotide triphosphatases (GTPases) of the Rho subfamily play in axon growth and guidance by dissecting their mechanisms of activation, effect on growth cone extension and navigation, and regulation of cytoskeletal dynamics in growth cones.

Professional Service:

Ad hoc grant review for Paralyzed Veterans of America and NSF

Ad hoc manuscript review for *Biophys. J.*, *Biotech. Prog.*, *Exp. Neurol.*, *J. Neurobiol.*, *Lasers Surg. Med.*

Volunteer Service: science fair and poster judge (local and national), $\Gamma\text{B}\Phi$ induction speaker, signal transduction journal club organizer

Current Memberships: $\Phi\text{K}\Phi$, $\Sigma\Xi$, Society for Neurosci., Am. Society for Neurochem., Nat. Neurotrauma Soc., Women in Neurosci., Women in Neurochem., Women in Neurotrauma Res. (currently sec/treas.), Fed. North Texas Area Univ. Neurosci. Comm. (currently chair), MBRS Exec and Advisory comm., Dept. comm. (grad curriculum, new course, search), University Club board member