

Rebecca A. Worthylake

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Education & Research Experience

Assistant Professor	LSU Health Sciences Center Department of Pharmacology	2004 - present
Research Assistant Professor	University of North Carolina Department of Cell and Developmental Biology	2003 -2004
Postdoctoral Fellow	University of North Carolina (with Keith Burridge)	1998-2002
PhD Cell Biology & Experimental Pathology	University of Utah (with Steve Wiley)	1992-1998
Research Technician	Oregon State University (with Gary Merrill)	1989-1992
BS Chemistry	University Of Oregon	1986-1989

Awards

American Heart Association Scientist Development Grant		2004 - 2008
NIH Postdoctoral Training Fellowship		1999 – 2001
Lineberger Comprehensive Cancer Center Postdoctoral Fellowship		1998 – 1999
Department of Defense Predoctoral Fellowship		1994 – 1998
Joseph S. Pagano Postdoctoral Fellow Award		2002
First Place Prize Comprehensive Center for Inflammatory Disorders Research Day Poster Contest		2001

Oral Presentations

Comprehensive Center for Inflammatory Disorders (UNC)	Regional Research Day “How <i>P. gingivalis</i> promotes monocyte- endothelial cell association”	May 2004
Amersham Biosciences Piscataway, NJ	“RhoA directs the migration of cells”	March 2004

Comprehensive Center for Inflammatory Disorders (UNC)	Regional Research Day "RhoA Regulates Directed Migration of Leukocytes"	May 2002
Lineberger Comprehensive Cancer Center (UNC)	Research Symposium "Regulation of Leukocyte Transmigration by RhoA"	October 2002
Comprehensive Center for Inflammatory Disorders (UNC)	Regional Research Day "RhoA Regulates Leukocyte Membrane Protrusions and Tail Retraction"	June 2002
Lineberger Comprehensive Cancer Center (UNC)	Research Symposium "RhoA regulates Leukocyte Tail Retraction"	October 2000
Comprehensive Center for Inflammatory Disorders (UNC)	Regional Research Day "Monocyte Transmigration is regulated by RhoA"	June 2000

Professional Memberships

American Society for Cell Biology (ASCB)

American Society for Biochemistry and Molecular Biology (ASBMB)

Federation of Societies for Experimental Biology (FASEB)

Organizational Activities

Organization of CCID Research Symposium (9 speakers, 150 participants) June 2002

Participation in founding the UNC Postdoctoral Association Programming Committee activities included:
Career Symposium June 2001 & Funding Symposium July 2002 2000- 2002

Teaching & Mentoring Experience

Lecture	Oral Biology Graduate Course University of North Carolina	March 2002 March 2000
Discussion Leader	Cell Biology Graduate Course University of North Carolina	October 2002
Teaching Assistant	Biology for Non-Majors University of Utah	Spring 1995
Teaching Assistant	Cell Biology University of Utah	Winter 1994

Laboratory Course Assistant	General Chemistry Lab University of Oregon	Fall, Winter, Spring 1989
Mentor	Graduate Student Tiana Garrett Development of Scientific Projects for Thesis Taught Independent Research Principles & Methods	2002- 2004
Mentor	Undergraduate Suzanne Corbitt Taught Independent Research Principles & Methods Authorship on Poster for Keystone Meeting	2002 -2003
Mentor	Undergraduate Sean Lemoine, Taught Independent Research Principles & Methods Authorship on JCB 154:147-160 (2001)	2000-2001

Professional Education

Science Writing Course	“Writing from the Reader’s Perspective” 12 hour course by Dr. George D. Gopen, Professor of Rhetoric	February 2004
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Scientific Service

Manuscript Reviewer	Cell EMBO J J. Cell Science Nature Cell Biology
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Publications

1. EE Schmidt, RA Owen, GF Merrill *J. Biol. Chem.* 265,17397-17400 (1990) “An Intragenic Region Downstream from the Dihydrofolate Reductase Promoter is Required for Replication-dependent Expression”
2. JB Welsh, RA Worthylake, HS Wiley and GN Gill *Mol. Biol. Cell* 5,539-47 (1994) “Specific Factors Required for Endocytosis of the Insulin Receptor”
3. RA Worthylake and HS Wiley *J. Biol. Chem.* 272,8594-601 (1997) “Structural Aspects of the EGF Receptor Required for Transmodulation of erbB-2/neu”
4. RA Worthylake, LK Opresko, HS Wiley *J. Biol. Chem.* 274:8865-8874 (1999) “ErbB-2 Amplification Inhibits Downregulation and Induces Constitutive Activation of Both ErbB-2 and EGF Receptors”
5. CM Waterman-Storer, RA Worthylake, B. Liu, K Burrridge, ED Salmon *Nat. Cell Biol* 1:45-50 (1999) "Microtubule growth activates Rac1 to promote lamellipodial protrusion in fibroblasts."
6. RA Worthylake, S Lemoine, JM Watson, K Burrridge *J. Cell Biol* 154:147-160 (2001) “RhoA is required for monocyte tail retraction during transendothelial migration”

7. RA Worthylake and K Burridge *Curr. Opin. Cell Biol.* 13:569-577 (2001) “Leukocyte Transendothelial Migration: Orchestrating the Underlying Molecular Machinery”
8. RA Worthylake and K Burridge *J. Biol. Chem* 278:13578-13584 (2003) “RhoA and ROCK Limit Membrane Protrusions during Directed Migration”
9. ES Wittchen, JD van Buul, K Burridge, RA Worthylake *Curr. Opin. Hematol.* 12:14-21 (2005) “Trading spaces: Rap, Rac and Rho as architects of transendothelial migration”
10. ES Wittchen, RA Worthylake, P Kelly, PJ Casey, LA Quilliam, K Burridge *J. Biol. Chem.* 10.1074/jbc.M412595200 epub (2005) “Rap1 GTPase inhibits leukocyte transmigration by promoting endothelial barrier function”