

**Kelly Wentz-Hunter**

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**Education:**

- Ph.D. 1997. Department of Pharmacology and Molecular Biology  
Finch University of Health Sciences/Chicago Medical School
- B.S. 1991. Magna cum laude Bachelor's of Science in Biology  
College of Saint Francis, Joliet, IL  
Major: Biology Minor: Chemistry

**Teaching Experience:**

- 2006-Present Assistant Professor of Biology, Roosevelt University, Chicago, IL
- 2006- Spring Adjunct Faculty, Lewis University, Romeoville, IL  
Teaching Introduction to Toxicology for upper level majors.
- 2006- Spring Adjunct Faculty, University of Saint Francis, Joliet, IL  
Teaching Human Biology and laboratory for non-majors.
- 2005- 2006 Adjunct Faculty, Triton College, Melrose Park, IL  
Teaching: Biology 100 General Biology and laboratory and  
Biology 114 Human Genetics and laboratory for non-majors.
- 2004- 2006 Adjunct Faculty, Malcolm X College, Chicago, IL  
Teaching Biology 121, Molecular and Cellular Biology and laboratory  
for majors.
- 1993-1996 Physician's Assistant, Medical Pharmacology, Chicago Medical School.  
Involved in the inception of course and syllabus. Responsible for majority  
of lectures.
- 1992-1996 Tutoring for medical and graduate students at the Chicago Medical  
School. Tutoring sessions both sanctioned through the medical school and  
privately.

**Research Experience:**

Assistant Professor of Biology

- 2006- present Roosevelt University, Department of Biological, Chemical, and Physical  
Sciences: The role of signal transduction in the trabecular meshwork.

Visiting Research Assistant Professor

- 2002- 2006 University of Illinois at Chicago, Department of Ophthalmology and Visual  
Sciences: RNA interference of myocilin expression in the trabecular  
meshwork.

Instructor      University of Illinois at Chicago, Department of Ophthalmology and Visual  
2001-2002      Sciences: Discovery of interacting factors of myocilin, a glaucoma gene.

Postdoctoral    Laboratory of Dr. Beatrice Yue, University of Illinois at Chicago  
Fellow            Characterization of the function of myocilin in the trabecular meshwork and its  
1997-2001      role in glaucoma: Biochemical analysis of keratoconus, a thinning corneal  
                         disease.

Doctoral         Laboratory of Dr. Judith Potashkin, Finch University of Health Sciences/  
1992-1997      Chicago Medical School: Characterization of the pre-mRNA splicing factor U2AF  
                         in fission yeast.

Undergrad      Laboratory of Dr. Salim Diab, College of Saint Francis  
1989-1991      Characterization of the allelopathic compound juglone.

**Research Supervision/Students Mentored:**

*Graduate Students*

Dipti Panchal [2008-present]; Harini Yalamanchili [2008-present]; Jennifer Vik  
[2007-2008]; Nicole Nelson [2007-2008], Adam McKenzie [2007]; Julia Davis  
[2006-2007]

*Undergraduate Students*

Rajalekshmy Shyam [2007- present]; Matthew Amidon [2008-present]; Brett  
Calka [2008-present]; Jennifer Beltzer [2008-present]; Desi Evans [2008-  
present]; Elizabeth Krupica [2008-present] Janea Swanson [2008];Christina  
Swiderski [2008]; Megan Kreft [2007-2008]; Jenilee Candari [2007-2008];  
Taneesha Shaw [2007]

2008- present      Honor's Thesis for Jennifer Betzer  
2007- present      Honor's Thesis and independent research for Rajalekshmy Shyam  
2007-2008          Advisor for Honor's Thesis for Megan Kreft, Roosevelt University  
2001-2002          Illinois Mathematics and Science Academy student mentor.

**Courses Taught:**

*Graduate*

440 Human Pharmacology  
450 Cancer Biology

*Undergraduate*

118 Intro to Medicine and Health Sciences  
301 Cellular and Molecular Biology and Lab  
337 Science and Ethics  
350 Cancer Biology  
358 Cell Biology Lab

**Relevant Activities:**

**Science Day 2008-** Organized Spring semester Science Day activities including  
scientific presentations, career workshops and research poster session for  
students.

**RU GLAMOROUS-CSI [Girls Learning About Math, Outstanding Research and Organizing Unique Solutions using Computers, Science and Investigations] Summer Camp for Girls**

*Curricular Director and Instructor 2007- present*

The purpose of the camp is to provide an educational enrichment program in science, math and technology; without the stress of homework and tests. The program targets young women who are currently in the 6th through 8th grades in the northwest suburbs of Chicago and who may not currently embrace these subject areas.

**Summer Biotech Institute, Roosevelt University**

*Instructor 2008*

The goal of this institute is to introduce incoming junior and senior high school students to current concepts and basic techniques in modern biotechnology. Students will also be introduced to the scientific literature, writing science reports and critical thinking.

**Taste of Science and Math 2008, Chase Summer Academy at Roosevelt University**

*Instructor 2008*

The goals of this project are to help incoming Chicago Public School sophomores be more prepared and confident for their science class (Biology or Chemistry) and their math class (Geometry), instill some interest and excitement about studying math or science, learn about possible jobs and careers in math and science, provide a college experience, and the opportunity to do inquiry based learning that leads to a final project.

**Courses Taken:**

Lewis University Summer Institute: Critical thinking, assessment, course development, Romeoville, IL, 2006.

Microinjection Techniques in Cell Biology, Marine Biological Laboratories, Woods Hole, MA, 1999.

Fundamental Issues in Vision Research: Molecular and Cell Biological Approaches, Marine Biological Laboratories, Woods Hole, MA, 1998.

**Grants and Fellowships:**

RU Summer Grant, 2007

National Eye Institute Small Grants for Pilot Research RO3 (EY 14354), 2003-2006

Midwest Eye-Banks and Transplantation Center Scientific Grants Program, 2001

Nelson Fellowship Award, 2001

Individual National Research Service Award (EY06889), 1998-2001

ARVO Travel Fellowship Grant, Glaucoma Research Foundation, 1999

National Eye Institute Fellowship for Fundamentals in Vision Course, 1998

Sigma Xi Grant-in-Aid of Research, 1993

Finch University of Health Science Graduate Fellowship, 1991-1997

## Honors:

Annual Student Award for Excellence in Performance, 1993  
Medical Pharmacology Honors, Top student, 1993  
Kappa Mu Epsilon, 1988  
Dean's List, 1987-1991  
Illinois Scholar, 1987

## Societies:

Association for Research in Vision and Ophthalmology  
American Society for Cell Biology  
American Association for the Advancement of Science  
American Association of University Professors  
Lion's International, Chicago LIERI Lions Club, Charter Member  
Sigma Xi

## Publications

- Potashkin J, Naik K, **Wentz-Hunter K**. (1993) U2AF homolog is required for splicing in vivo. *Science* 262: 573-575.
- Wentz-Hunter K** and Potashkin J. (1995) The evolutionary conservation of the splicing apparatus  
Between fission yeast and man. *Nucl. Acid Symp. Series* 33: 226-228.
- Wentz-Hunter K** and Potashkin J. (1996) The small subunit of the splicing factor U2AF is conserved in fission yeast. *Nucl. Acids Res.* 24:1844-1854.
- Potashkin J, **Wentz-Hunter K**, Callaci J. (1996) BTF3 is conserved in fission yeast. *Biochim. Biophys. Acta.* 1308: 182-184.
- McKinney R, **Wentz-Hunter K**, Schimitz H, and Potashkin J (1997) Molecular analysis of a novel fission yeast gene spUAP2 that associates with the splicing factor spU2AF59. *Mole. Genet.* 32: 232-235.
- Ueda J, **Wentz-Hunter K**, Cheng E, Fukuchi T, Abe H, Yue BYJT. (2000) Ultrastructural localization of myocilin in human trabecular meshwork cells and tissues. *J Histochem. Cytochem.* 48: 1321-1329.
- Wentz-Hunter K**, Cheng EL, Ueda J, Sugar J, Yue BYJT. (2001) Keratocan expression is increased in the stroma of keratocorneas. *Mol. Med.* 7:470-477.
- Ochotorena IL, Hirata D, Kominami K, Potashkin J, Sahin F, **Wentz-Hunter K**, Gould KL, Sato K, Yoshida Y, Vardy L, Toda T. (2001) Conserved Wat1/Pop3 WD-repeat protein of fission yeast secures genome stability through microtubule integrity and may be involved in mRNA maturation. *J Cell Sci.* 114:2911-2920.
- Wentz-Hunter K**, Ueda J, Shimizu N, Yue BYJT. (2002) Myocilin is associated with mitochondria in human trabecular meshwork cells. *J Cell. Physiol.* 190:46-53.
- Wentz-Hunter K**, Ueda J, Yue BYJT. (2002) Protein interactions with myocilin. *Invest Ophthal Vis Sci.* 43:173-182.
- Ueda J, **Wentz-Hunter K**, Yue BYJT. (2002) Distribution of myocilin and extracellular matrix components in the cribriform meshwork of human eyes. *Invest Ophthal Vis Sci.* 43:1068-1076.

- Cheng EL, Ueda J, **Wentz-Hunter K**, Yue BYJT. (2002) Age-independent expression of myocilin in the human trabecular meshwork. *Int J Mol Med*.10:33-40.
- Wentz-Hunter K**, Shen X, Yue BYJT. (2003) Distribution of myocilin, a glaucoma gene product, in human corneal fibroblasts. *Mol Vis*. 9:308-314.
- Wentz-Hunter K**, Kubota R, Shen X, Yue BYJT. (2004) Extracellular Myocilin Affects Activity of Human Trabecular Meshwork Cells. *J Cell. Physiol*. 200:45-52.
- Wentz-Hunter K**, Shen X, Okazaki K, Tanihara H, Yue BYJT. (2004) Overexpression of Myocilin in Cultured Human Trabecular Meshwork Cells. *Exp Cell Res*. 297:39-48.