

Curriculum Vitae  
W. Daniel Stamer, Ph.D.

Table of Contents

---

Contact Information.....	2
Research Program Goal.....	2
Education.....	2
Employment.....	3
Honors and Awards.....	3-4
Service.....	4-9
Outreach.....	4-5
Community Education.....	4-5
Student Mentoring Programs.....	5
Citizenship.....	5-9
Department Committee Service.....	5-6
Faculty Mentoring.....	6
College Committee Service.....	6
Interdisciplinary Graduate Programs.....	6
University Committee Service.....	7
National Committee Service.....	8
Professional Affiliations.....	8
Journal Editorial Boards.....	8
Journal Referee.....	8
<i>Ad Hoc</i> Grant Referee.....	8-9
Publications/Creative Activities.....	9-12
Refereed Journal Articles.....	8-11
Refereed Electronic Journal Articles.....	11
Refereed Reviews/Book Chapters.....	11
Editorials.....	12
Work in Progress/Manuscripts in review.....	12
Patents.....	13
Invited Scholarly Presentations.....	13-20
Colloquia.....	13-14
Invited Seminars.....	14-15
Conference Presentations.....	15-20
Grants and Contracts.....	20-21
Federal Grants.....	20
State Grants.....	21
Industry Grants/Contracts.....	21
Private Foundation Grants.....	21
Training Grants.....	21
Advanced Educational/Research Training.....	22
Teaching Experience.....	22-25
Undergraduate Student.....	22
Graduate/Medical Student.....	22
Student Research Supervision.....	23-24
Dissertation/Thesis Committee Service.....	24
Graduate Comprehensive Exam Committee Service.....	25
Fellowship Training.....	25

## Contact Information

### Office

The University of Arizona  
 Department of Ophthalmology  
 & Vision Science  
 Medical Research Building  
 1656 East Mabel, Room 213  
 Tucson, AZ 85724  
 Phone: 520-626-7767  
 Facsimile: 520-626-1757  
 Email: [dstamer@eyes.arizona.edu](mailto:dstamer@eyes.arizona.edu)

### Laboratory

Medical Research Building  
 1656 East Mabel  
 Room 230  
 Tucson, AZ 85724  
 Phone: 520-626-2871

## Research Program Goal

To investigate/understand the molecular and cellular mechanisms that regulate aqueous humor outflow such that novel targets can be identified and used for the development of therapeutics to effectively lower intraocular pressure in people with glaucoma.

## Chronology of Education:

### **Undergraduate**

1982-1983	University of California, Irvine Major: Biology
1983-1984	University of California, Santa Cruz Major: Biology
1987-1991	The University of Arizona, Tucson Major: Molecular and Cellular Biology Degree: B.S. ( <i>cum laude</i> )

### **Graduate**

1993-1996	The University of Arizona, Tucson College of Pharmacy Major: Pharmacology & Toxicology Minor: Physiological Sciences Degree: Ph.D. Advisor: John W. Regan, Ph.D. Dissertation title: Characterization of $\alpha_2$ -adrenergic receptors and aquaporin-1 water channels in the human eye.
-----------	--

### **Postgraduate**

1996	<i>Postdoctoral Fellow</i> , Departments of Pharmacology/Toxicology and Physiology Colleges of Pharmacy and Medicine, University of Arizona Major: Molecular Pharmacology/Cell Physiology Co-Advisors: John W. Regan, Ph.D. & Andrea Yool, Ph.D.
1997-1998	<i>Postdoctoral Fellow</i> , Department of Ophthalmology College of Medicine, Duke University Major: Glaucoma/Cell Biology Advisor: David L. Epstein, M.D.

## Chronology of Employment

1986-1989	Corneal Transplant Coordinator, Arizona Lions Eye Bank, Tucson, AZ.
1989-1990	Research Assistant, Department of Pathology, The University of Arizona, Tucson, AZ.
1990-1992	Research Specialist, Department of Ophthalmology, The University of Arizona, Tucson, AZ.
1993-1996	Graduate Research Assistant, Pharmacology and Toxicology Graduate Program, The University of Arizona, Tucson, AZ.
1996	Postdoctoral fellow, Departments of Physiology and Pharmacology/Toxicology, The University of Arizona, Tucson, AZ.
1997-1998	Postdoctoral fellow, Department of Ophthalmology, Duke University, Durham, NC.
1999-2003	Assistant Professor (tenure eligible), Departments of Ophthalmology and Pharmacology, College of Medicine, The University of Arizona.
2003-present	Associate Professor with Tenure, Department of Ophthalmology and Vision Science and Department of Pharmacology, College of Medicine, The University of Arizona
2004-present	Associate Head for Vision Science, College of Medicine, The University of Arizona.

## Honors and Awards

1992-1993	The University of Arizona Predoctoral Fellowship, Academic Merit Award.
1995-1996	Pharmaceutical Research & Manufacturers Association, Predoctoral Fellowship Training Award.
1996	National Eye Institute Postdoctoral Fellowship Award for advanced training in vision research at Marine Biological Laboratory, Woods Hole.
1997-1998	National Research Service Award #F32 EY06835, National Eye Institute.
2001	Ruth Salta Junior Investigator Achievement Award, National Glaucoma Research, American Health Assistance Foundation.
2001-2005	Research to Prevent Blindness, Career Development Award.
2002	Dean's commendation for outstanding progress on Dean's Research Council Grant

- 2002 “Editors selection” in International Glaucoma Review III/2, 2002. (*Invest. Ophthalmol. Vis. Science*, 2001; 42:1803-1811).
- 2003 Resident Teaching Award, Basic Science Series, Department of Ophthalmology, 2002/3 Academic Year
- 2003-pres. Member, Editorial Advisory Board of *Life Sciences Journal*
- 2004-pres. Member, Scientific Advisory Board, American Health Assistance Foundation, National Glaucoma Research
- 2004 Furrow Award for Excellence in Graduate Teaching, College of Medicine, The University of Arizona
- 2005-6 Regular Member, Anterior Eye Diseases Study Section (formerly VIS-A), Center for Scientific Review, NIH
- 2007-8 Physiology/Pharmacology Section Organizer, XVIII International Congress for Eye Research, Beijing, China.
- 2007-pres. Member, Scientific Advisory Board, Cytokinetics Inc.

## Service (Last six years)

### Outreach

#### *Local/State*

#### Community presentations (invited)

1. Lions MD21-A Cabinet Meeting, Lake Havasu City, AZ, 2/6/99, “Glaucoma Research at the University of Arizona Department of Ophthalmology”.
2. South Side Lions, 2/23/99, “Glaucoma Research at the University of Arizona Department of Ophthalmology”.
3. North Tucson Lions, 3/5/99, “Glaucoma Research at the University of Arizona Department of Ophthalmology”.
4. Downtown Lions, 4/8/99, “Glaucoma Research at the University of Arizona Department of Ophthalmology”.
5. Canoa Hills Community Center, 10/4/99. “Glaucoma Research at the University of Arizona”, Green Valley, AZ.
6. Sight and Hearing Foundation Board Meeting, 9/19/99 (educational presentation about glaucoma).
7. Radio Interview, News Radio Service, for Glaucoma Awareness Week, 12/12/00.
8. Ask AHSC, question and answer news service for rural Arizona, 3/6/01.
9. Tucson Breakfast Lions Club, 8/15/01, Glaucoma Research at the University of Arizona.
10. Canyon State Lion, “Cutting-edge research may lead to new treatments for glaucoma”, 9/17/01.
11. Tucson Citizen, “Mystery protein may be key for UA glaucoma researcher”, 11/7/01.

12. Green Valley Community Center, 3/28/02, Finding a cure for age-related macular degeneration.
13. Scottsdale Library, 4/2/02, "Finding a cure for age-related macular degeneration"
14. Salpointe High School, 10/04/02, "Scientific Writing Skills".
15. Duval Auditorium, Arizona Health Sciences Center, 1/29/03 "Promise of glaucoma research".
16. Salpointe High School, 2/05/03, "Molecular/Cellular Biology and Glaucoma".
17. Salpointe High School, 10/20/04, "Molecular/Cellular Biology & Glaucoma".
18. Salpointe High School, 10/21/04, "Molecular/Cellular Biology & Glaucoma".
19. Salpointe High School, 2/7/05, "Scientific Writing/Poster Presentations".
20. Salpointe High School, 2/8/05, "Scientific Writing/Poster Presentations".
21. Peoria Community Center, 4/8/05, "Research on Vision".
22. Arizona Lions State Convention, 5/21/05, "Breakthroughs in Eye Research".
23. Salpointe High School, 11/30/05, "Glaucoma Research".
24. Sun City Vistoso Community Center, 2/16/06, "Breakthroughs in Eye Research".
25. Salpointe High School, 2/28/06, "Scientific Writing/Poster Presentations".
26. "Fox-11 Forum" KMSB-TV (June 11, 2006) and "In Focus" KTTU-TV (June 18, 2006); half hour interview on Glaucoma Research.
27. Lion's District Governors Meeting, Mesa Arizona, "Eye Research at U of A", 5/18/07.

#### Student Mentoring Programs:

1999-2002	Tucson Unified School District, Professional Internship Program
1999-present	NIH Disadvantaged Student Research Program
1999-present	Medical Student Research Program, Univ. of Arizona
2001-present	Undergraduate Biology Research Program, University of Arizona
2004	Southwest Association for Education in Biomedical Sciences, Summer Internship Program

### **Citizenship**

#### *Intramural*

#### Departmental committees (Ophthalmology and Vision Science)

1999	Member, Department of Ophthalmology Academic Review Committee
2000	Member, RPB Departmental Grant Application Committee

2000-present	Chair, Research Committee
2000-present	Director, Science of Eye Disease Seminar Series
2001-3	Member, Recruitment Committee
2004	Chair, RPB Grant Renewal Committee
2004-present	Member, Promotion and Tenure Committee
2004-present	Member, Advisory Board
2007	Co-chair, Self-study Committee, Academic Program Review

#### Faculty Mentoring

2005-2007	Tenure advisor for Lihua Marmorstein, Ph.D., Department of Ophthalmology and Vision Science
2005-2006	Faculty advisor, College of Medicine Grant Seeker's Program
2006-present	Tenure advisor for Roxanna Ursea, M.D., Department of Ophthalmology and Vision Science
2007-present	Tenure advisor for Ryan Pelis, Ph.D., Department of Physiology

#### College Committees/Service

1999-present	Medical Student Interviewer
2001-2004	Member, Committee of Nine
2002-2005	Member, Student Progress Committee
2002	Member, Medicine Clerkship Review Committee
2003-2004	Member, Medical Research Building Planning Committee
2004-2005	Member, Physiology Department Head Search Committee
2005	Member, Self-Study Committee, Department of Pharmacology Academic Review
2004-2005	Member, Steering Committee, Medical Pharmacology Graduate Program
2004-2005	Member, Medical Student Committee, Institutional Self-Study for LCME Accreditation
2005-2010	Elected member, Dean's Research Council
2005-2007	Member, Executive Committee, Medical Pharmacology Graduate Program
2006-pres.	Chair, Faculty Search Committee, Medical Neuroscience Theme
2007-2010	Member, Dean's Research Council, Space Committee

Interdisciplinary Graduate Program; Faculty Affiliations

2001-present	Graduate Program in Physiological Sciences
2001-present	Graduate Program in Neuroscience
2001-present	Graduate Program in Biomedical Engineering
1999-2004	Graduate Program in Pharmacology and Toxicology
2004-present	Graduate Program in Medical Pharmacology

University Committees

1999-2001	Faculty evaluator for undergraduate Upper-Division Writing Proficiency Examinations
2001-2003	Graduate School Representative, Oral Qualifying Examination
2003-2006	Member, Recruiting and Admissions Committee, Biomedical Engineering Graduate Program
2002-2005	Member, Program Committee, Physiological Sciences Graduate Program
2002-2004	Member, Executive Council, Pharmacology and Toxicology Graduate Program
2004-2005	Member, Self-Study Committee for GIDP Biomedical Engineering Graduate Academic Program Review
2005-2006	Chair, Resources Committee, Physiological Sciences Graduate Program
2005-2008	Member, Executive Committee, Physiological Sciences Graduate Program
2006-2007	Elected Member, Graduate Interdisciplinary Program Advisory Committee

*Extramural*National/International Committees

1999-present	Member, Congressional Liaison Committee for Public Policy, American Society for Cell Biology
2004-present	Member, National Research Tissue Acquisition Working Group, Association for Research in Vision and Ophthalmology
2005-present	Member, National Alliance for Eye and Vision Research
2007-2009	Elected member, Physiology/Pharmacology Program Committee, Association for Research in Vision and Ophthalmology

2008-present National Diabetes Research Interchange Feasibility Review Committee

#### Professional Affiliations/Memberships

1990-present Association for Research in Vision and Ophthalmology  
 1995-present The American Society for Cell Biology  
 1999-present Western Pharmacology Society  
 2004-present Research to Prevent Blindness Foundation  
 2005-present Trabecular Meshwork Society  
 2006-present International Society for Eye Research  
 2006-present Association for Ocular Pharmacology and Therapeutics

#### Journal Editorial Board

2000-2002 *Ad Hoc* Editor, *Investigative Ophthalmology and Visual Sciences*  
 2003-present Member, Editorial Advisory Board, *Life Sciences*

#### Journal Referee

1997-present *Investigative Ophthalmology and Visual Sciences*  
 2001-present *Experimental Eye Research*  
 1999-present *Archives of Ophthalmology*  
 2000-present *American Journal of Physiology*  
 1999-present *Life Sciences*  
 2001-present *Current Eye Research*  
 2002 *Brain Research*  
 2001 *Pain*  
 2003-2004 *Oncogene*  
 2003 *Lasers in Surgery and Medicine*  
 2004 *Ocular Immunology and Inflammation*  
 2005 *Visual Neuroscience*  
 2005-present *British Journal of Ophthalmology*  
 2005-present *Journal of Ocular Pharmacology and Therapeutics*  
 2005-present *Molecular Vision*  
 2006-present *Journal of Cellular Physiology*  
 2006-present *Journal of Glaucoma*  
 2006 *Journal of Neuroscience*  
 2007 *European Journal of Pharmacology*  
 2007 *Ophthalmic Research*  
 2007 *British Journal of Pharmacology*  
 2006-present *Ophthalmology*

Ad Hoc Grant Referee

2006	NIH, BDCN-F, special emphasis panel
2006	National Science Foundation
2002-5	NIH, Anterior Eye Diseases (VIS-A) study section
2000	The University of Arizona Dean's Research Council
2001	Northwest Health Foundation
2000	Robert S. Flinn Foundation
1997	American Health Assistance Foundation

## Publications/Creative Activity (Published or Accepted)

Refereed journal articles

1. RW Snyder, **WD Stamer**, REB Seftor. (1993) Corticosteroid treatment and trabecular meshwork proteases in cell and organ culture supernatants. *Exp. Eye. Res.* 57: 461-468.
2. REB Seftor, **WD Stamer**, EA Seftor, RW Snyder. (1994) Dexamethasone decreases tissue plasminogen activator activity in trabecular meshwork organ and cell cultures. *J. Glaucoma* 3:323-28.
3. **WD Stamer**, RW Snyder, BL Smith, P Agre, JW Regan. (1994) Localization of aquaporin CHIP in the human eye: Implications in the pathogenesis of glaucoma and other disorders of ocular fluid balance. *Invest. Ophthalmol. Vis. Sci.* 35: 3867-72.
4. **WD Stamer**, REB Seftor, HAM Samaha, SK Williams and RW Snyder. (1995) Isolation and culture of human trabecular meshwork cells by extracellular matrix digestion. *Cur. Eye. Res.* 14: 611-617.
5. **WD Stamer**, REB Seftor, RW Snyder and JW Regan. (1995) Cultured human trabecular meshwork cells express aquaporin-1 water channels. *Cur. Eye. Res.* 14: 1095-1100.
6. Y Huang, DW Gil, P Vanscheeuwijck, **WD Stamer** and JW Regan. (1995) Immunolocalization of alpha-2 adrenergic receptors in the anterior segment of the human eye using subtype-specific antibodies. *Invest. Ophthalmol. Vis. Sci.* 36: 2729-2739.
7. **WD Stamer**, Y Huang, SSP Svensson, REB Seftor, RW Snyder and JW Regan. (1996). Human trabecular meshwork cells express functional alpha-2A adrenergic receptors. *Invest. Ophthalmol Vis. Sci.*, 37: 2426-2433.
8. AJ Yool, **WD Stamer** and JW Regan. (1996) Forskolin stimulation of water and cation permeability in aquaporin-1 water channels. *Science*, 273: 1216-1218.
9. **WD Stamer**, RW Snyder and JW Regan. (1996) Characterization of the transmembrane orientation of aquaporin-1 using antibodies to fusion proteins. *Biochemistry*, 35: 16313-16318.
10. TL Anthony, KL Pierce, **WD Stamer** and JW Regan. (1998) Prostaglandin F<sub>2α</sub> receptors in the human trabecular meshwork. *Invest. Ophthalmol. Vis. Sci.*, 39: 315-321.

11. **WD Stamer**, BC Roberts, DN Howell and DL Epstein. (1998) Isolation, culture and characterization of endothelial cells from Schlemm's canal. *Invest. Ophthalmol. Vis. Sci.* 39: 1804-1812.
12. **WD Stamer**, BC Roberts and DL Epstein. (1999) Hydraulic pressure stimulates adenosine 3',5'-cyclic monophosphate accumulation in endothelial cells from Schlemm's Canal. *Invest. Ophthalmol. Vis. Sci.* 40: 1983-1988.
13. **WD Stamer**, BC Roberts, DL Epstein and RR Allingham. (2000) Isolation of trabecular meshwork cells from primary open-angle glaucomatous tissue. *Curr. Eye Res* 20: 347-350.
14. XC Sun, KT Allen, Q Xie, **WD Stamer** and JA Bonanno. (2001) Effect of AQP1 expression level on CO<sub>2</sub> permeability in bovine corneal endothelium. *Invest. Ophthalmol. Vis. Sci.* 42: 417-423.
15. **WD Stamer**, K Peppel, ME O'Donnell, BC Roberts, F Wu, and DL Epstein. (2001) Expression of Aquaporin-1 in human trabecular meshwork cells: Role in volume regulation. *Invest. Ophthalmol. Vis. Sci.* 42: 1803-1811. Chosen for the "Editors selection" in International Glaucoma Review III/2, 2002.
16. **WD Stamer**, S.F. Golightly, Y. Hosohata, E. P. Ryan, E. Varga, R.J. Noecker A.C. Porter, C.C. Felder and H.I. Yamamura. (2001) CB1 cannabinoid receptor expression, activation and detection of endogenous ligand in trabecular meshwork and ciliary process tissues. *Eur J. Pharmacol.* 431: 277-286.
17. Y Huang, **WD Stamer**, TL Anthony, DV Kumar, PA St. John and JW Regan. (2002) Expression of  $\alpha_2$ -Adrenergic Receptor Subtypes in Prenatal Rat Spinal Cord, *Dev. Brain Res* 133: 93-104.
18. CH Mitchell, JC Fleischhauer, **WD Stamer**, K Peterson-Yantorno and MM. Civan. (2002) Human trabecular meshwork cell volume regulation, *Am. J. Physiol.*, 283: C315-C326.
19. AC Porter, SPS Svensson, **WD Stamer**, JJ Bahl, JG Richman and JW Regan. (2002) Alpha-2 adrenergic receptors stimulate actin organization in developing fetal cardiac myocytes. *Life Sciences*, 72: 1455-1466.
20. RL Heimark, S Koachar and **WD Stamer**. Human Schlemm's canal cells express the endothelial adherens proteins, VE-cadherin and PECAM-1 (2002). *Cur. Eye Res.* 25: 299-308.
21. AJ Yool, OH Brokl, TL Pannabecker, WH Dantzler and **WD Stamer**. (2002) Tetraethylammonium block of water flux in Aquaporin-1 channels expressed in kidney thin limbs of Henle's loop and a kidney-derived cell line, *BMC Physiol*, 2:4. (online).
22. **WD Stamer**, D. Bok, Jane Hu, GJ Jaffe and BS McKay. Aquaporin-1 channels in human retinal pigment epithelium: Role in transepithelial water movement. (2003) *Invest. Ophthalmol. Vis. Sci.* 44: 2803-2808.
23. JC Fleischhauer CH Mitchell, **WD Stamer**, MO Karl, K Peterson-Yantorno and MM. Civan. (2003) Common actions of adenosine receptor agonists in modulating human trabecular meshwork cell transport. *J. Mem. Biol.* 193: 121-136.

24. SM Conley, RL Bruhn, P Morgan and **WD Stamer**. Selenium effects on MMP-2 and TIMP-1 activity in human trabecular meshwork cell supernatants. (2004). *Invest. Ophthalmol. Vis. Sci.*, 45: 473-479.
25. CR Ethier, DWH Chan, S Wada and **WD Stamer**. Experimental and numerical studies of adenoviral delivery to outflow tissues of perfused human anterior segments. (2004) *Invest. Ophthalmol. Vis. Sci.* 45:1863-1870.
26. P Gonzalez, M Caballero, **WD Stamer**, PB Liton and DL Epstein. Expression analysis of the matrix GLA protein and VE cadherin gene promoters in the outflow pathway. (2004) *Invest. Ophthalmol. Vis. Sci.* 45: 1389-1395.
27. AG Burke, W Zhou, BC Roberts, ET O'Brien, and **WD Stamer**. Effect of pressure gradients and Na<sub>2</sub>EDTA on transendothelial electrical resistance and hydraulic conductivity of Schlemm's Canal cell monolayers. (2004) *Cur. Eye Res.* 28:391-398.
28. EM Hoffman, SM Conley, **WD Stamer** and BS McKay. Barriers to productive transfection of human trabecular meshwork cells. (2005) *Mol. Vision*, 11:869-875. (online).
29. MO Karl, JC Fleischhauer, **WD Stamer**, K Peterson-Yantorno, CH Mitchell, RA Stone, MM Civan. Differential P1-Purinergic Modulation of Human Inner-Wall Schlemm's Canal Cells. (2005) *Am. J. Physiol.* 288:C784-C794.
30. PB Liton, X Liu, **WD Stamer**, P Challa, DL Epstein and P Gonzalez. Specific targeting of gene expression to a subset of human trabecular meshwork cells using the chitinase 3-like 1 promoter. (2005) *Invest. Ophthalmol. Vis. Sci.* 46:183-190.
31. KM Hardy, EA Hoffman, BS McKay and P Gonzalez, **WD Stamer**. Extracellular trafficking of myocilin in human trabecular meshwork cells. (2005) *J. Biol. Chem.* 280:28917-28926.
32. SM Conley, BS McKay, AJ Gandolfi, **WD Stamer**. Alterations in Human Trabecular Meshwork Cell Homeostasis by Selenium. (2006) *Exp. Eye Res.* 82: 637-647.
33. Z Wan, L Brigatti, J. Ranger-Moore, CR Ethier and **WD Stamer**. Rate of change in central corneal thickness: A viability indicator for conventional drainage tissues in organ culture (2006) *Exp. Eye Res.* 82: 1086-1093.
34. D Boassa, **WD Stamer** and AJ Yool. Ion channel function of Aquaporin-1 natively expressed in choroid plexus. (2006) *J. Neuroscience* 26: 7811-7819.
35. **WD Stamer**, KM Perkumas, EA Hoffman, BC Roberts, DL Epstein and BS McKay. Coiled-coil targeting of myocilin to intracellular membranes. (2006) *Exp. Eye Res.* 83:1386-1395.
36. KM Perkumas, EM Hoffman, BS McKay, RR Allingham and **WD Stamer**. Myocilin-Associated Exosomes in Human Ocular Samples. (2007) *Exp. Eye Res.* 84:209-212.
37. **WD Stamer**, D Chan, CR Ethier. Targeted Gene Transfer to Schlemm's Canal by Retroperfusion. (2007) *Exp. Eye Res.* 84: 843-849.

38. Z Wan, DF Woodward, C Cornell, H Fliri, J. Martos, S Petit, JW Wang, AB Kharlamb, LA Wheeler, ME Garst, K Landsverk, CS Struble, and **WD Stamer**. Bimatoprost, Prostaglandin Activity and Conventional Drainage. (2007) *Invest. Ophthalmol. Vis. Sci.* 48:4107-4115.
39. RF Ramos and **WD Stamer**. Effect of Cyclic Intraocular Pressure on Conventional Outflow Facility. (2008) *Invest. Ophthalmol. Vis. Sci.* 49: 275-281.

#### Refereed Review Articles/Book Chapters

1. AJ Yool and **WD Stamer**. Novel roles for aquaporins as gated ion channels (2004). In: *Advances in Molecular and Cellular Biology: Molecular and cellular insights into ion channel biology*. Volume Editor: Robert Maue, 32: 351-379.
2. RF Ramos, JB Hoying, MH Witte, **WD Stamer**, Schlemm's canal endothelia, lymphatic or blood vasculature? (2007) *J. Glaucoma* 16: 391-405.
3. WD Stamer, NW Baetz and AJ Yool. Ocular aquaporins and aqueous humor dynamics. The Eye's Aqueous Humor in *Current Topics in Membranes*. Volume editor: MM Civan (*in press*).
4. Z Wan, DF Woodward and WD Stamer. The Role of Endogenous Bioactive Lipids in the Regulation of Conventional Outflow Facility. *Expert Reviews in Ophthalmology* (*in press*).

#### Editorials

1. **WD Stamer**. Editors Selection: Basic Research. International Glaucoma Review (2004). Volume 5, Issue 3, pg. 433.
2. **WD Stamer**. Editors Selection: Basic Research. International Glaucoma Review (2005). Volume 7, Issue 2, pg. 194.
3. CA Curcio, AM Marmorstein, JJ Requard, P Aiken-O'Neill, **WD Stamer**, C McGahan, D Linker, J Lonsdale and L Methia. Declining availability of human eye tissues for research (2006). *Invest. Ophthalmol. Vis. Sci.* 47: 2747-2749.
5. **WD Stamer**. Editors Selection: Basic Research. International Glaucoma Review 9-1, pg. 14 (2007).

#### Work in Progress

##### *Manuscripts in review*

1. **WD Stamer**, SM Conley, DW Chan and CR Ethier. Aquaporin-1 expression and human conventional outflow.
2. R Bruhn, **WD Stamer**, L Herrygers, J Levine, and RJ Noecker. Relationship between Glaucoma and Selenium Levels in Plasma and Aqueous Humor.
3. CR Ethier, GM Sumida, AT Read, KM Perkumas and **WD Stamer**. S1P receptor mediated effects on outflow facility of human eyes in organ culture.

4. EA Hoffman, KM Perkumas, KM Hardy and **WD Stamer**. Regulation of myocilin-associated exosome release from trabecular meshwork cells.

## Patents

1. United States Patent Application #**20040167076**, “Modulation of Aqueous Humor Outflow by Targeting Cadherin-5 between Schlemm’s Canal Cells”; University of Arizona reference number: UA03-036. Licensed by Advanced Glaucoma Technologies, Inc. 4/4/06.

## Invited Scholarly Presentations

### *Colloquia*

1. “Aquaporin-1 and aqueous humor outflow”. *XXXII Ophthalmic Biochemistry Conference*, Oakland University, Detroit, Michigan, November, 1997.
2. “Subcellular localization of myocilin”. *Genetics and Molecular Biology Catalyst Meeting*. Glaucoma Research Foundation. San Juan, Puerto Rico, December, 1998.
3. “Fluid flow stimulates adenosine 3’,5’-cyclic monophosphate accumulation in endothelial cells from Schlemm’s canal”. Abstract#431, *XIII International Congress of Eye Research*, Paris, France July, 1998.
4. “Glaucoma is associated with defects in the secretory pathway”. *Role of TIGR/Myocilin in glaucoma catalyst meeting*, Glaucoma Research Foundation, Oakland, California, April, 2000.
5. “Conceptos Actuales de Investigacion en Glaucoma”. Colegio de Oftalmologos del Estado de Sonora Conference. Nogales, Sonora, Mexico, September, 2000.
6. “Aquaporin-1: Role in resting cell volume”. Abstract #598. *XIV International Congress of Eye Research*, Santa Fe, New Mexico, October, 2000.
7. “Myocilin: evidence for a vesicle tether”. Tucson Traffic Jam Symposium, Tucson, Arizona, July, 2001.
8. “Aspectos Moleculares y Nuevos Desarrollos en Ciencias Basicas”, Coloquio de Glaucoma, Hermosillo, Sonora, Mexico. December 2001.
9. “Selective inhibition by tetraethylammonium of water not ion fluxes in aquaporin-1 channels”. Miami, FL, *Transport 2002*.
10. “Inner wall of Schlemm’s canal and outflow resistance”, *XIV International Congress of Eye Research*, Geneva, Switzerland, October 2002.
11. “Adherens junction in Schlemm’s canal: a novel target for glaucoma therapy”, IV International Glaucoma Symposium, Barcelona, Spain, March 2003.
12. “Role for cannabinoids in aqueous humor dynamics”, Lipid Mediator Special Interest Group Session, *Association for Research in Vision and Ophthalmology*, Ft. Lauderdale, FL, May 2003.

13. "Targeting of myocilin to nascent intercellular junctions". *XV International Congress of Eye Research*, Sydney, Australia, August 2004.
14. "Role of Aquaporin-1 in movement of water out of the eye", Ocular aquaporins: A tour through the eye, *Association for Research in Vision and Ophthalmology*, Ft. Lauderdale, FL, May 2005.
15. "Coiled-coil Targeting of Myocilin to Intracellular Membranes", Trabecular Meshwork Society Meeting, San Francisco, CA, December, 2005.
16. "Contribution of Outflow Cells to Pathology", Second Annual ARVO/Pfizer Ophthalmic Research Institute Conference. "Aqueous Humor Outflow: What do we know? Where will it lead us?" April 28-9 2006, Ft. Lauderdale, FL. Session Moderator.
17. "Dynamic regulation of outflow resistance by cell-cell adhesions", *XVI International Congress of Eye Research*, Buenos Aires, Argentina, Oct. 29- Nov. 3, 2006.
18. "Targeted gene transfer to Schlemm's canal by retroperfusion in organ culture", Trabecular Meshwork Society Meeting, San Diego, CA, December, 2006.
19. "VE-cadherin, a therapeutic target for ocular hypertension", Association for Ocular Pharmacology and Therapeutics, 8<sup>th</sup> Scientific Meeting, San Diego, CA, February 9-11, 2007.
20. "Cyclic intraocular pressure oscillations decrease outflow facility and increase cellularity of human anterior segments in organ culture", Trabecular Meshwork Society Meeting, Washington, D.C., December, 2007.

#### *Invited Seminars*

1. Modeling of the human aqueous humor outflow Pathway", Allergan Pharmaceuticals, Irvine, CA, September, 1999.
2. "Myocilin and cellular secretion", Graduate Student Seminar Series in Pharmacology and Toxicology, Tucson, AZ, January, 2000.
3. "Myocilin and cellular secretion". Alcon Pharmaceuticals, Ft. Worth, TX, February, 2000.
3. "Molecular Physiology of Aqueous Humor Outflow", The University of Arizona, Physiological Sciences Graduate Program Seminar Series, Tucson, August, 2001.
4. "Molecular Physiology of Aqueous humor outflow", Human Physiology Program, University of California at Davis, March, 2001.
5. "Cadherin regulation of aqueous humor outflow", Dean's Research Council Brown Bag Seminar, May, 2002.
5. "Human eye tissue usage in glaucoma research", Workshop on ophthalmic research tissue acquisition, Anaheim, CA, Nov. 2003.
6. "Regulation of Aqueous Humor Outflow", Biomedical Engineering Graduate Program Seminar Series, The University of Arizona, November 2004.

7. "The genetics of glaucoma: Role of myocilin", Frontiers in Research Seminar Series, College of Medicine, The University of Arizona, November, 2005.
8. "Drug targets in glaucoma", Medicinal Chemistry Graduate Program Seminar Series, College of Pharmacy, The University of Arizona, January 2006.
9. "Neurodegenerative diseases of the eye", Frontiers in Research Seminar Series, College of Medicine, The University of Arizona, April, 2006.
10. "Aquaporin-1 and Aqueous Humor Dynamics", Science of Disease Seminar Series, presented with Nobel Laureate, Dr. Peter Agre, Duke University Eye Center, May 2006.
11. "Myocilin and glaucoma", Research Group Seminar, Duke University Eye Center, May 2006.
12. "Myocilin-associated exosomes and glaucoma", University of Regensburg, Regensburg, Germany. July 28, 2006.
13. "Effect of cyclic biomechanical stress on fluid flow through the conventional drainage tissues". 5<sup>th</sup> World Congress of Biomechanics, Munich, Germany, August 2006.
14. "Myocillin, exosomes and glaucoma", Vanderbilt Eye Institute 2006-7 Academic Seminar Series, Nashville, TN, October, 2006.
15. "Therapeutically targeting the conventional outflow pathway; Bimatoprost and beyond", Allergan Pharmaceuticals, Irvine, CA, February 16<sup>th</sup>, 2007.
16. "Glaucoma, Conventional Drainage and Myocilin-Associated Exosomes", Storm Eye Institute, Medical University of South Carolina, April 9<sup>th</sup>, 2007.
17. "Effect of S1P on human conventional Drainage", Allergan Pharmaceuticals, Irvine, CA, June 19, 2007.
18. "Modeling and targeting human conventional outflow", Pfizer Pharmaceuticals, San Diego, CA, October 15, 2007.

#### *Conference Presentations*

1. **WD Stamer**, JC Jahnke, MC McDermott and RW Snyder. Effect of Ciprofloxacin on rabbit corneal endothelial viability. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts #1936, 1991.
2. RW Snyder, **WD Stamer**, SA Limstrom, JC Jahnke and J Hunts. Corticosteroid treatment regulates trabecular meshwork fibrinolytic enzymes. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts #2136, 1992.
3. RW Snyder, **WD Stamer**, EA Seftor, TR Kramer and REB Seftor. Dexamethasone regulates tissue plasminogen activator in trabecular meshwork organ and cell cultures. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts #2155, 1993.
4. TR Kramer, B Matsumoto, I Hale, RW Snyder, RJ Noecker and **WD Stamer**. Laser Scanning Confocal immunofluorescence Microscopy of the Extracellular Matrix Components of the Human Trabecular Meshwork: A Three Dimensional Study. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts #3826, 1994.

5. Y. Huang, P. Vanscheeuwijck, **WD Stamer** and JW Regan. Immunohistochemical Localization of Alpha-2 Adrenergic Receptors in the Anterior Segment of the Human Eye with Subtype-Specific Antibodies. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts # 2949, 1994.
6. **WD Stamer**, RW Snyder, BL Smith, P Agre and JW Regan. Localization of Aquaporin CHIP in the Human Eye. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts # 924, 1994.
7. REB Seftor, **WD Stamer**, HAM Samaha, SK Williams and RW Snyder. Human trabecular meshwork cell isolation and subsequent culturing using an extracellular matrix digestion technique. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts # 2216, 1995.
8. **WD Stamer**, Y Huang, REB Seftor, RW Snyder and JW Regan. Human trabecular meshwork cells express functional alpha-2A adrenergic receptors. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstracts #2292, 1995.
9. **WD Stamer**, RP Gruener, TH Burkey and JW Regan. Activation of the human  $\alpha_2A$ ,  $\alpha_2B$  and  $\alpha_2C$  adrenergic receptor subtypes stimulates MAP kinase activity in COS cells. *Society for Neuroscience*, abstract # 08920, 1995.
10. **WD Stamer**, RW Snyder and JW Regan. Antibodies to recombinant fusion proteins confirm the molecular orientation of loops C and E, and the carboxyl terminus of aquaporin-1. *The American Society for Cell Biology*, abstract # 321, 1995.
11. **WD Stamer**, RW Snyder TH Burkey and JW Regan. Activation of  $\alpha_2A$ -Adrenergic receptors in human trabecular meshwork cells stimulates MAP kinase activity. *Invest. Ophthalmol. Vis. Sci.*, ARVO abstract #952, 1996.
12. JW Regan, **WD Stamer** and Y Huang.  $\alpha_2$ -Adrenergic receptors subtypes: Molecular biology and localization in ocular tissue. *XII International Congress on Eye Research*, abstract # 260, 1996.
13. JW Regan, **WD Stamer** and AJ Yool. Water channels and receptors: Potential interactions affection the regulation of cellular water permeability. *XII International Congress on Eye Research*, abstract # 261, 1996.
14. SPS Svensson, AC Porter, **WD Stamer**, JJ Bahl and JW Regan.  $\alpha_2$ -adrenergic receptors stimulate actin organization in developing fetal cardiac myocytes. *The American Society for Cell Biology*, 1996.
15. **WD Stamer**, JW Regan and AJ Yool. Calcium influences water and cation fluxes in *Xenopus* oocytes expressing aquaporin-1. *The American Society for Cell Biology*, 1996.
16. **WD Stamer** BC Roberts, DL Epstein and BS McKay. Myocilin functions in vesicle formation and fusion. *Am. Soc. Cell Biol.*, Abstract #1195, 1998, (submitted).
17. BC Roberts, **WD Stamer** and DL Epstein. Isolation and culture of endothelial cells from Schlemm's canal. *Invest. Ophthalmol. Vis. Sci* ARVO abstract#2246, 1998.
18. DL Epstein, BS McKay, BC Roberts, T Borrás and **WD Stamer**. Native and recombinant TIGR/MYOC localizes to vesicles. *Invest. Ophthalmol. Vis. Sci* ARVO abstract #2247, 1998.

19. **WD Stamer**, BS McKay BC Roberts, T Borrás and DL Epstein. Myosin-like domain of TIGR/MYOC targets to vesicles. *Invest. Ophthalmol. Vis Sci* ARVO abstract #2021, 1998.
20. BS McKay, BC Roberts and **WD Stamer**. Myocilin functions in cell-cell junction formation. *Am. Soc. Cell Biol.*, Abstract #2373, 1999.
21. **WD Stamer**, K Peppel, ME O'Donnell, BC Roberts, F Wu, and DL Epstein. Aquaporin-1 regulates resting volume in human trabecular meshwork cells. *Invest. Ophthalmol. Vis Sci* ARVO abstract #2660 1999.
22. SF Golightly, RJ Noecker, HI Yamamura, **WD Stamer**. CB1 Receptors and Aqueous Humor Dynamics. *Western Pharmacological Society*. Abstract #T23, 2000.
23. **WD Stamer**, RR Allingham, BC Roberts and BS McKay Subcellular localization of myocilin mutants. *Invest. Ophthalmol. Vis Sci* ARVO abstract #2792, 2000.
24. BS McKay, BC Roberts, **WD Stamer**. Myocilin Functions in Nascent Cell Junction Formation. *Invest. Ophthalmol. Vis Sci* ARVO abstract #4482, 2000.
25. S.F. Golightly, E. P. Ryan, H.I. Yamamura, R.J. Noecker and **W.D. Stamer**. Cannabinoid receptors and aqueous humor dynamics. *Invest. Ophthalmol. Vis Sci* ARVO abstract #1318, 2000.
26. **WD Stamer**, Y Hosohata, EP Ryan, E Varga, HI Yamamura. Cannabinoids interact with functional CB1 receptors in primary cells from ciliary process and trabecular meshwork. *Invest. Ophthalmol. Vis Sci* ARVO abstract #3981, 2001.
27. A Burke, EP Ryan, N Atodaria, BC Roberts and **WD Stamer**. Relationship between hydraulic conductivity and transendothelial electrical resistance of Schlemm's canal cell monolayers *Invest. Ophthalmol. Vis Sci* ARVO abstract #4478, 2001.
28. BS McKay, HP Erickson and **WD Stamer**. Myocilin: a vesicle tether in retina and RPE. *Invest. Ophthalmol. Vis Sci* ARVO abstract #1041, 2001.
29. BS McKay, **WD Stamer** and HP Erickson. Myocilin is a VAMP-Associated protein. *Am. Soc. Cell Biol.*, Abstract #605, 2000.
30. EP Ryan, TS Haley, RL Heimark and **WD Stamer**. Vascular endothelial cadherin expression in human Schlemm's canal cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #4097, 2002.
31. EA Hoffman, EP Ryan, BS McKay and **WD Stamer**. Biochemical analysis of native and recombinant myocilin in human trabecular meshwork cells and supernatants. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1055, 2002.
32. **WD Stamer**, GJ Jaffe and BS McKay. Expression of aquaporin-1 in human retinal pigment epithelium. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #4571, 2002.
33. JC Fleischhauer, CH Mitchell, **WD Stamer**, K Peterson-Yatorno, and MM Civan. Human trabecular meshwork cell volume regulation. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1020, 2002.
34. **WD Stamer**, Y Hosohata, EP Ryan, AC Porter, E Varga, CC Felder and HI Yamamura. Cannabinoid CB<sub>1</sub> receptor activation and detection of endogenous ligand

- in eye tissues. Western Pharmacology Society/XXV Congreso Nacional de Farmacologia, abstract #WE-49, 2002.
35. RL Bruhn, SM Conley, P Morgan and **WD Stamer**. Selenium effects on metalloproteinase activity in human trabecular meshwork cell supernatants. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1173, 2003.
  36. **WD Stamer**, DWH Chan, AT Read and CR Ethier. Efficiency of adenoviral gene transfer to outflow cells in perfused human anterior segments. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1180, 2003.
  37. P Gonzalez, PB Liton, M Caballero, **WD Stamer**, X Liu, MG Bodman and DL Epstein. Search for promoters to target gene expression in selected cells of the outflow pathway. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1141, 2003.
  38. MO Karl, JC Fleischhauer, **WD Stamer**, K Peterson-Yatorno, CH Mitchell, RA Stone and MM Civan. Cells acutely harvested from inner-wall cells and explant-derived cells from inner- and outer-wall of Schlemm's canal display functional adenosine receptors. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3462, 2003.
  39. KM Hardy, EA Hoffman, BS McKay, and **WD Stamer**. Myocilin Association with Exosome-Like Vesicles in Human Trabecular Meshwork Cells. *Am. Soc. Cell Biol.*, Abstract #1298, 2003.
  40. SM Conley, BS McKay and **WD Stamer**, Selenium Effects on Integrin Activity and Intracellular Signaling in Trabecular Meshwork cells, *Invest. Ophthalmol. Vis Sci*, ARVO abstract #4416, 2004.
  41. **WD Stamer**, DJ Rak and BS McKay, Coiled-coil interactions of native myocilin, *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3658, 2004.
  42. EM Hoffman, A Poncius, BS McKay and **WD Stamer**, Cell Cycle Synchronization and Transfection Efficiency of Human Trabecular Meshwork Cells, *Invest. Ophthalmol. Vis Sci*, ARVO abstract #4432, 2004.
  43. Z. Wan, N. Atodaria, RJ. Noecker and **WD Stamer**, Bimatoprost Effects on Hydraulic Conductivity of Outflow Cell Monolayers, *Invest. Ophthalmol. Vis Sci*, ARVO abstract #4428, 2004.
  44. KM Hardy, EA Hoffman, BS McKay and **WD Stamer**, Biochemical Properties of Extracellular Myocilin, *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3664, 2004.
  45. MO Karl, JC Fleishhauer, **WD Stamer**, K Peterson-Yatorno, CH Mitchell, RA Stone and MM Civan. Schlemm's Canal cells and trabecular meshwork cells as potential targets in IOP modulation. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #416, 2004.
  46. PB Liton, P Challa, X Lui, M Caballerao, **WD Stamer** and DL Epstein. Specific targeting of gene expression to a subset of human trabecular meshwork cells using the Chitinase-3-like-1 promoter in adenoviral-mediated gene transfer experiments. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #4368, 2004.
  47. MA Hauser, D Layfield, J Yang, T Wang, E Hoffman, **WD Stamer** and R Allingham. SAGE expression analysis of trabecular meshwork to identify POAG susceptibility genes. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1097, 2005.

48. SM Conley and **WD Stamer**. Selenium toxicity in trabecular meshwork cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1183, 2005.
49. EA Hoffman, SM Conley, BS McKay and **WD Stamer**. Role of DNase I in transfection efficiency of human trabecular meshwork cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3692, 2005.
50. Z. Wan, **WD Stamer** and L Brigatti. Ultrasound pachymetry and viability of anterior segment perfusion model. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3665, 2005.
51. RF Ramos and **WD Stamer**. Introduction of two physiological factors to anterior segment perfusion model. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3673, 2005.
52. **WD Stamer**, DW Chan and CR Ethier. Targeted viral delivery to Schlemm's canal by retroperfusion in organ culture. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #220, 2006.
53. RF Ramos and **WD Stamer**. Effect of pulsatile pressure on outflow facility of human anterior segments in organ culture. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #224, 2006.
54. SM Conely, Z Wan, S Coons and **WD Stamer**. Functional alterations in the trabecular meshwork after selenium treatment. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #427, 2006.
55. KM Perkumas, EA Hoffman, Z Wan, RR Allingham, MP Fautsch and **WD Stamer**. Myocilin-associated exosomes in human samples. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1869, 2006.
56. Z Wan, DF Woodward and **WD Stamer**. Bimatoprost effects on conventional drainage tissues. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3919, 2007.
57. SC Coons, Z Wan, DF Woodward and **WD Stamer**. Bimatoprost and AGN211334 effects on hydraulic conductivity of trabecular monolayers. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3923, 2007.
58. EA Hoffman, KM Perkumas, KM Hardy and **WD Stamer**. Regulation of myocilin-associated exosomes from trabecular meshwork cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #2063, 2007.
59. RF Ramos and **WD Stamer**. Effects of cyclic intraocular pressure oscillations on tissue viability of human anterior segments in organ culture. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3928, 2007.
60. GM Sumida, AT Read, KM Perkumas, **WD Stamer** and CR Ethier. S1P receptor mediated effects on outflow facility of human eyes in organ culture. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #3927, 2007.
61. SB Zanello, A Perry, **WD Stamer** and R Heimark. Regulation of junctional proteins in Schlemm's canal cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #5908, 2007.
62. AJ Hutchinson, SC Coons, WD Stamer and JW Regan. Novel Signaling Pathways Regulated by Prostanoid Receptors in Human Ciliary Smooth Muscle Cells. *The American Society for Cell Biology*. Abstract # 1384, 2007.

63. AT Read, **WD Stamer** and CR Ethier. S1P Effects on Morphology of Outflow Pathway in Human Eyes. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #1634, 2008.
64. KM Perkumas, SB Zanello, RL Heimark, **WD Stamer**. VEGF Receptor 1 and 2 in Human Schlemm's Canal Cells *Invest. Ophthalmol. Vis Sci*, ARVO abstract #683, 2008.
65. EA Hoffman, N Baetz and **WD Stamer**. Stretch-Induced Aquaporin-1 Expression in Human Trabecular Meshwork Cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #680, 2008.
66. RF Ramos and **WD Stamer**. Cyclic Mechanical Stress and Trabecular Meshwork Cell Contractility. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #679, 2008.
67. N Baetz, AJ Yool and **WD Stamer**. Atrial Natriuretic Peptide and Fluid Transport Across Human Retinal Pigment Epithelium. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #5553, 2008.
68. GM Sumida and **WD Stamer**. S1P Receptor-Mediated Effects in Human Schlemm's Canal Endothelial Cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract # 682, 2008.
69. AJ Hutchinson, SC Coons, **WD Stamer**, DF Woodward and JW Regan. Novel Signaling Pathways Regulated by Prostanoid Receptors in Human Ciliary Smooth Muscle Cells. *Invest. Ophthalmol. Vis Sci*, ARVO abstract #2619, 2008.

## Grants and Contracts:

### Federal Grants

- |           |   |
|-----------|---|
| 2006-2011 | <b>Principal Investigator</b> , National Eye Institute, R01 EY17007, "Cadherin Dynamics and Glaucoma".  |
| 2001-2006 | <b>Principal Investigator</b> , National Eye Institute, R01 EY12797, "Molecular Mechanisms of Myocilin Function in the Human Eye".                          |
| 2003-2006 | <b>Principal Investigator</b> , National Eye Institute, R03 EY15115 "Selenium-induced Glaucoma".  |
| 2003-2007 | <b>Co-Investigator</b> , (AJ Yool, P.I.) National Institute for General Medical Sciences, R01 GM59986, "Regulation of Ion Channel Function of Aquaporin-1". |
| 2002-2005 | <b>Principal Investigator</b> , National Eye Institute, R03 EY13861, "Cadherin Regulation of Aqueous Humor Outflow".  |

State Grants

2000-2001     *25% Effort, Principal Investigator*, Dean's Research Council (DRCG), "Fluid Flow Routes across Schlemm's Canal"; Received Dean's commendation for outstanding progress 2/20/02.

Private Industry Grants/Contracts

2000            Unrestricted Research Grant, Allergan, Inc.  
 2003            Unrestricted Research Grant, Allergan, Inc.  
 2004            Unrestricted Research Grant, Allergan, Inc.  
 2005            Unrestricted Research Grant, Allergan, Inc.  
 2006            Unrestricted Research Grant, Allergan, Inc.  
 2006            Research Contract, Pfizer Pharmaceuticals  
 2007            Unrestricted Research Grant, Allergan, Inc.  
 2007            Research Contract, Pfizer Pharmaceuticals  
 2007            Research Contract, Allergan, Inc.

Private Foundation Grants

2001-2003     *25% Effort, Principal Investigator*, American Health Assistance Foundation (AHAF), G2001-026, National Glaucoma Research Award, "Role of Aquaporin-1 in the Permeability of Schlemm's Canal".  
 1999-2000     *25% Effort, Principal Investigator*, Glaucoma Research Foundation (GRF), "Effect of mutations in myocilin on cellular secretion".  
 1998-1999     *25% Effort, Co-Principal Investigator*, American Health Assistance Foundation (AHAF), National Glaucoma Research Award, "Role of TIGR/MYOC Protein in Human TM Cells".

Training Grants

2006-2008     *Thesis mentor* for Renata Ramos, National Eye Institute, F31-EY16887, "Biomechanical factors that regulate outflow facility".  
 2006-2011     Faculty, NIH Cardiovascular Training Grant, T32 HL007955.  
 2007-2012     Faculty, Graduate Training in Systems and Integrative Physiology, T32-GM08400.  
 2007-2012     Faculty, Interdisciplinary Training in Cardiovascular Research, T32-HL07249

## Advanced Educational/Research Training

*Problem-based Learning Facilitation Workshop*

William R. Galey, Ph.D.  
University of New Mexico School of Medicine  
October, 1999

*Grantsmanship Seminar/Workshop for Biomedical Research Scientists*  
Presented by Federation of American Societies for Experimental Biology  
Instructors: Stephen W. Russell, D.V.M., Ph.D. and David Morrison, Ph.D.  
June, 2001

*Research Mentoring Workshop*  
Douglas L. Weed, M.D., Ph.D., M.P.H.  
National Cancer Institute  
Presented by Arizona Cancer Prevention and Control Training Program  
February, 2002

*Anterior Segment Perfusion Training*  
C. Ross Ethier, Ph.D.  
The University of Toronto  
June, 2003

*Neuroscience Facilitators' Training Workshop*  
College of Medicine, The University of Arizona  
Jill Keller, Ph.D., Office of Educational Development  
August, 2003

*Interactive Lecture Workshop*  
College of Medicine, The University of Arizona  
Steve Wright, Ph.D.  
February, 2006

## Teaching Experience

### Undergraduate Teaching

Term	Course	Lecture Hours	Avg. # of Students
Spring 99	<b>PCOL 436/536</b> , Chemotherapy of Infectious Disease	5	120
Spring 01-04	<b>BME 411/511</b> , Physiology for Biomedical Engineering	5	30
Fall 01-02	<b>BME 410/510</b> , Biology for Biomedical Engineering	4	25
Spring 02	<b>PCOL 421</b> , Pharmacy Case Discussions	4.5	12
Fall 04	<b>BME 495/595c</b> , Current Topics in BME	1	30

## Graduate/Medical Student Teaching

Term	Course	Lecture Hours	Avg. # of Students
Spring 99-03	<b>MED 801X</b> , Integrated Problem-based learning	12	8
Fall 99- <i>present</i>	<b>PCOL 551</b> , Molecular Pharmacology	6	16
Fall 99- <i>present</i>	<b>PCOL 602a</b> , Systems Toxicology	1.5	25
Fall 99- <i>present</i>	<b>PCOL 501/801</b> , Medical Pharmacology Case Studies	6	12
Spring 01-05	<b>PCOL 653</b> , Neuropharmacology	3	14
Fall 02- <i>present</i>	<b>PHCL 595b</b> , Scientific Writing Strategies, Skills and Ethics, <i>Course Coordinator</i>	24	30
Fall 03	<b>MED 825</b> , Medical Neuroscience Case Studies	15	8
Spring/Fall 04- <i>present</i>	<b>PHCL 595c</b> , Critical Literature Review and Seminar, <i>Course Co-coordinator</i>	7	40
Fall 05- <i>present</i>	<b>PCOL 630b</b> , Cell Signaling	2	15
2006- <i>present</i>	<b>ArizonaMed</b> , Neuroscience Block	8	110
2006- <i>present</i>	<b>ArizonaMed</b> , Neuroscience Block, CBI	8	8

## Student Research Supervision

Year	Student Name	Academic Level	Program of Study
1999-2000	Shawna Golightly	Undergraduate School	Undergraduate Independent Study
2000	Salma Koachar	High School	NIH Disadvantaged Student Research Program
2000	Aimee Worthen	High School	TUSD Professional Internship Program
2000	Edward Kim	Undergraduate School	Federal Work/Study Program
2000	Bo Yang	Graduate School	Laboratory Rotation/PharmTox
2000	Jason Levine	Medical School	Ophthalmology Elective/Lab rotation
2001	Helen Smith	High School	TUSD Profession Internship Program
2000-1	Andrew Burke	Graduate School	Research year before medical school
2001	Lisa Lane	Medical School	Ophthalmology Elective/Lab rotation
2001	Melba Jaramillo	High School	NIH Disadvantaged Student Research Program
2001	Theodore Haley	Medical School	Medical Student Research Program
2001	Kyler Hunter	Graduate School	Laboratory Rotation/PharmTox
2001	Sambhitab Salvi	Graduate School	Laboratory Rotation/PharmTox
2001-2	Lisa Herrygers, M.D.	Residency	Resident Research Project
2001-2	John Alberdi	Graduate School	Laboratory Rotation/BME
2001-2	Dawn Nice	Graduate School	Laboratory Rotation/Psio
2001	Parham Morgan	Medical School	Ophthalmology Elective/Lab rotation
2001-2	Kevan Bayne	High School	TUSD Profession Internship Program
2002-3	Kathy Hardy	Graduate School	Gerontological Studies Graduate Program
2002-3	Roberta Bruhm	Graduate School	Epidemiology Graduate Program
2002-3	Neil Atodaria, M.D.	Residency	Resident Research Project
2002	Andrew Burke	Medical School	Summer Research Project
2002	Dustin Marshall	High School	NIH Disadvantaged Student Research Program
2002	Andrew Lietag	Graduate School	Laboratory Rotation
2002-3	Salma Koachar	Undergraduate School	Undergraduate Biology Research Program
2003	Parham Morgan, MD	Fellow	Ophthalmology Residency

2003-7	Zhou Wan	Graduate School	Medical Pharmacology Graduate Program
2003	Alexandra Poncius	Undergraduate School	Undergraduate Biology Research Program
2003-4	Tasnuva Kaochar	High School	NIH Disadvantaged Student Research Program
2002-5	Shannon Conely	Graduate School	Pharmacology/Toxicology Graduate Program
2003-pres.	Renata Ramos	Graduate School	Biomedical Engineering Graduate Program
2004	Chane Rains	Graduate School	Laboratory Rotation/PharmTox
2004	Snow Slade	Medical School	Medical Student Research Program
2004	Greg Martin	Graduate School	Laboratory Rotation/BME
2004-5	Chieko Saito	Graduate School	Laboratory Rotation/Physiological Sciences
2005	Jennifer Morris	Undergraduate School	Senior Thesis
2005-pres.	Nicholas Baetz	Graduate School	Cell Biology/Anatomy Graduate Program
2006	Ashley Blum	Undergraduate School	Research Internship
2006-pres	Grant Sumida	Graduate School	Physiological Sciences Graduate Program
2007	Brianna Paisley	Graduate School	Laboratory Rotation/Medical Pharmacology
2007	Lindsey Highstrom	Graduate School	Laboratory Rotation/Medical Pharmacology
2007	Edward DeHoog	Graduate School	Independent Study/BME
2007	Saumya Vanderwist	Graduate School	Laboratory Rotation/BME
2008	Phat Tran	Graduate School	Laboratory Rotation/BME

### Graduate Thesis/Dissertation Committee Service (\*primary advisor)

Years of Service	Student Name	Graduate Program	Current Status
1999-2001	Kenneth Witt	Pharmacology/Toxicology	Graduated with Ph.D
1999-2002	Dinesh Srinivasan	Pharmacology/Toxicology	Graduated with Ph.D
1999-2004	Daniela Boassa	Neuroscience	Graduated with Ph.D.
2000-2003	Bo Yang	Pharmacology/Toxicology	Graduated with Ph.D.
2001-2004	Zachary Derbyshire	Pharmacology/Toxicology	Graduated with Ph.D.
2000-2003	Rebecca Mulholland	Pharmacology/Toxicology	Graduated with Ph.D.
2001-2003	Lynne Martin	Pharmacology/Toxicology	Graduated with M.S.
2001-2003	Catherine Dumitrov	Pharmacology/Toxicology	Graduated with M.S.
2002-2006	Sharon Hom	Physiological Sciences	Graduated with Ph.D.
2002-2004	Karen Sandoval	Pharmacology/Toxicology	Graduated with Ph.D.
2002-2004	Mohab Ibrahim	Pharmacology/Toxicology	Graduated with Ph.D.
2002-2005	Dawn Birdsell	Physiological Sciences	Graduated with Ph.D.
2003-2006	Robert Kuester	Pharmacology/Toxicology	Graduated with Ph.D.
2002-2003	*Kathy Hardy	Gerontology	Graduated with M.S.
2002-2005	*Shannon Conley	Pharmacology/Toxicology	Graduated with Ph.D.
2002-pres	Roberta Bruhn	Epidemiology	
2003-2007	*Zhou Wan	Medical Pharmacology	Graduated with Ph.D.
2003-pres	Wei Xu	Pharmacology/Toxicology	Graduated with Ph.D.
2002-2006	Elton Migliati	Physiological Sciences	Graduated with Ph.D.
2003-pres	Cortnie Short	Physiological Sciences	
2003-2006	Katherine Horak	Pharmacology/Toxicology	Graduated with Ph.D.
2004-2006	Jennifer Uno	Physiological Sciences	Graduated with Ph.D.
2004	Hope Dang	Applied Biosciences	Graduated with M.S.
2004-pres	*Renata Ramos	Biomedical Engineering	
2004-pres	Katherine Hardy	Cell Biology and Anatomy	
2004-2007	Melissa Brym	Pharmacology/Toxicology	Graduated with Ph.D.
2004-2007	Edita Navratolova	Medical Pharmacology	Graduated with Ph.D.
2005	Matt McReynolds	Physiological Sciences	Graduated with M.S.
2005-pres	Chris Campos	Medical Pharmacology	
2005-2007	Tyson Kinnick	Physiological Sciences	Graduated with Ph.D.
2005-pres	*Nicholas Baetz	Cell Biology and Anatomy	
2005	Samira Najmaii	Medical Pharmacology	Graduated with M.S.
2005-pres	Margaret Keck	Physiological Sciences	

2006-pres	*Grant Sumida	Physiological Sciences	
2007-pres	Yaofeng Cheng	Medical Pharmacology	
2007-pres	Marcos Teran	Physiological Sciences	
2007-pres	Stacy Dunaway	Medical Pharmacology	
2007-pres	*Lindsey Highstrom	Medical Pharmacology	
2007-pres	Justin Kowell	Medical Pharmacology	
2007-pres	*Saumya Vanderwist	Biomedical Engineering	

### Biomedical Engineering Comprehensive Exam Committee Service

<b>Year of Exam</b>	<b>Student Name</b>
2005	Cody Bliss
2005	Kristen O'Halloran
2006	Renata Ramos
2006	Tim Troutman
2006	Alex Tumulinson
2006	Greg Martin
2006 (retake)	Tim Troutman

### Fellowship training

<b>Years in training</b>	<b>Fellow's Name</b>	<b>Current Position</b>
2001	Neil Atodaria, M.D.	Private Practice, Phoenix, AZ
2006-2007	Suzanne Zanello, Ph.D.	NASA, Houston, TX.
2006-2007	Elton Migliati, D.V.M., Ph.D.	