

Jessica Ijams Wolfing Morgan

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OBJECTIVE AND QUALIFICATIONS

- Substantial experience explaining technical concepts to a variety of audiences including faculty, engineers, doctors, and the general public.
- Desire to combine technical education with medical research.

OPTICS AND LIBERAL ARTS EDUCATION

UNIVERSITY OF ROCHESTER, Rochester, NY

PhD in Optics

expected: Spring 2008

Master of Science in Optics

October 2005

Teaching Assistant

September 2003 - May 2004

WAKE FOREST UNIVERSITY, Winston-Salem, NC

Bachelor of Science with honors in Physics

May 2002

Bachelor of Arts in Mathematics

May 2002

- Cumulative GPA: 3.802

- Honors: Summa Cum Laude

- Pi Beta Kappa

Spring 2002

- Sigma Pi Sigma (Physics Honor Society)

Spring 2000

- Phi Epsilon Mu (Math Honors Society)

Spring 2001

- Golden Key National Honor Society

Spring 2000

- Teaching Assistant, Introductory Physics

September 2001 - May 2002

RESEARCH EXPERIENCE

UNIVERSITY OF ROCHESTER

May 2003 - present

Graduate Research in Optics and Vision Science Advisor: Dr. David Williams

WAKE FOREST UNIVERSITY

Fall 2001 - May 2002

Undergraduate Research in Physics Honors advisors: Dr. George Holzwarth and Dr. Keith Bonin

UNIVERSITY OF NEVADA, LAS VEGAS

Summer 2001

NSF, Research Experience for Undergraduates Mentor: Dr. David P. Shelton

GRANTS AND AWARDS

NATIONAL EYE INSTITUTE TRAVEL GRANT

May 2007

Association for Research in Vision and Ophthalmology (ARVO) Annual Meeting 2007

NATIONAL INSTITUTE OF HEALTH TRAINING GRANT

2004-2005

University of Rochester, training in PhD program in optical engineering with David R. Williams.

SELECTED PRESENTATIONS AND INVITED TALKS

Morgan, J.I.W., Gray, D.C., Wolfe, R., Masella, B., Dubra, A., Williams, D.R. "Imaging individual human retinal pigment epithelium cells in vivo." [ARVO abstract contributed talk], 2007; Abstract number 1953.

Masella, B., Morgan, J.I.W., Merigan, W., Gray, D.C., Hunter, J.J., Wolfe, R., Geng, M., Williams, D.R. "Retinal damage observed with autofluorescence imaging of retinal pigment epithelium cells in vivo." [ARVO abstract], 2007; Abstract number 2770.

Carroll, J., Baraas, R.C., Morgan, J.I.W., Williams, D.R., Foster, D.H., Neitz, M. "Expression of C203R mutant cone pigment results in cone degeneration." [ARVO abstract], 2007; Abstract number 3814.

Merigan, W.H., Gray, D.C., Morgan, J.W., Russell, S., Scoles, D., Williams, D.R. "In vivo imaging of the radial peripapillary vasculature in the macaque retina" [ARVO abstract], 2007; Abstract number 4398.

Wolfing, J.I., Dubra, A., Gray, D.C., Williams, D.R., "Dual-wavelength focusing and simultaneous image registration for in vivo high-resolution retinal imaging." Contributed talk Optical Society of America Frontiers in Optics meeting, Rochester, NY, October 2006.

- Gray, D.C., Merigan, W., Gee, B., Wolfing, J.I., Porter, J., Dubra, A., Twietmeyer, T.H., Ahmad, K., Williams, D.R., "In vivo high-resolution fluorescence retinal imaging with adaptive optics." Contributed talk Optical Society of America Frontiers in Optics meeting, Rochester, NY, October 2006.
- Morgan, J.I.W. "High resolution autofluorescence imaging of individual retinal pigment epithelial cells *in vivo*" Contributed talk Optical Society of America Vision Meeting, Rochester, NY, October 2006.
- Wolfing, J.I., Gray, D.C., Dubra, A., Wolfe, R., Gee, B., Merigan, W., Williams, D.R., "High resolution autofluorescence imaging of individual retinal pigment epithelial cells *in vivo*" [Engineering the Eye II: Imaging the Retina. abstract] Galway, Ireland 2006; Abstract number P34.
- Dubra, A., Wolfing, J.I., Gray, D.C., Williams, D.R., "Dual-wavelength imaging for registering high-resolution retinal images *in vivo*." [Engineering the Eye II: Imaging the Retina. abstract] Galway, Ireland 2006; Abstract number P12.
- Wolfing, J. "Adaptive Optics: Explanation and Its Clinical Applications" Invited talk University of Rochester Eye Institute 2005 Ophthalmology Conference: Past Reflections and New Directions" May 20, 2005
- Wolfing, J. Chung, M., Carroll, J., Roorda, A., Poonja, S., Vilupuru, A.S., Williams, D.R. "High Resolution Imaging of Cone-Rod Dystrophy with Adaptive Optics" [ARVO abstract], 2005; Abstract number 2567.
- Wolfing, J., Chung, M. Carroll, J., Williams, D.R. "High Resolution Retinal Imaging of Cone-Rod Dystrophy" [Optical Society of America Fall Vision Meeting Rochester, New York] October 2004 Abstract Nr 50.
- Carroll, J., Choi, S., Wolfing, J. Hofer, H. Williams, D.R. "Imaging Retinal Disease with Adaptive Optics" [2nd annual European Optical Society meeting, Granada, Spain] September 2004 Abstract Nr 3.
- Carroll, J., Choi, S., Gray, D., Wolfing, J., Williams, D. R., "Mechanisms of color blindness revealed with adaptive optics retinal imaging," [XVIth International Congress of Eye Research, Sydney, Australia] August, 2004.
- Carroll J, Neitz M, Wolfing J, Gray D, Neitz J, Williams DR. Different genetic causes of red-green color blindness give rise to different retinal phenotypes as assessed with adaptive optics [ARVO Abstract], 2004; Abstract nr 4341.
- Porter J, Yoon G, Tumber R, Lozano D, Wolfing JI, Cox IG, Williams DR. Aberrations induced by pupil center decentrations in customized laser refractive surgery [ARVO Abstract], 2004; Abstract nr 212.

PUBLICATIONS

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- Wolfing, J. Chung, M., Carroll, J., Roorda, A., Williams, D.R. "High resolution retinal imaging of cone-rod dystrophy." *Ophthalmology*. 2006;113:1014–1019.
- Gray, D.C., Merigan, W., Wolfing, J.I., Gee, B.P., Porter, J., Dubra, A., Twietmeyer, T.H., Ahmad, K., Tumber, R., Reinholz, F., Williams, D.R. "In vivo fluorescence imaging of primate retinal ganglion cells and retinal pigment epithelial cells." *Optics Express*. 2006;14(16):7144-7158.
- Makous, W. Carroll, J. Wolfing, J.I. Lin, J. Christie, N., Williams, D.R. "Retinal Microscotomas Revealed with Adaptive-Optics Microflashes." *Investigative Ophthalmology and Visual Science*. 2006;47:4160–4167.
- Porter, J. Yoon, G., Lozano, D., Wolfing, J., Tumber, R., MacRae, S., Cox, I.G., Williams, D.R. "Aberrations induced in wavefront-guided laser refractive surgery due to shifts between natural and dilated pupil center locations." *Journal of Cataract and Refractive Surgery*. 2006;32:21–32.