



## Robert J. Zawadzki, Ph.D.

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| <b>Clinical Interests</b>         | Dr. Zawadzki is studying various types of retinal and ONH diseases. His research interests focus on development of new instrumentation for high-resolution in vivo retina imaging (allowing visualization of individual cellular structures). This includes, but is not limited to Optical Coherence Tomography (OCT), Scanning Laser Ophthalmoscopy (SLO), Adaptive Optics (AO) and combinations of all the above. Currently, Dr. Zawadzki is also involved in studying eye aging process as well as various types of retinal diseases by using these novel instruments to enhance the understanding of its mechanisms.   |
| <b>Title</b>                      | Assistant Research Professor   |
| <b>Specialty</b>                  | Ophthalmology  |
| <b>Department</b>                 | <a href="#">Ophthalmology and Vision Science</a>   |
| <b>Division</b>                   | Ophthalmology  |
| <b>Center/Program Affiliation</b> | <a href="#">Eye Center</a>   |
| <b>Education</b>                  | Ph.D., Technical University of Vienna, Vienna, Austria, 2003   |
| <b>Fellowships</b>                | University of Vienna, Vienna, Austria, 2003  |
| <b>Professional Memberships</b>   | Association for Research in Vision & Ophthalmology<br>Optical Society of America<br>The International Society for Optical Engineering  |
| <b>Select Recent Publications</b> | Robert J. Zawadzki, Stacey S. Choi, Alfred R. Fuller, Julia W. Evans, Bernd Hamann, John S. Werner Cellular resolution volumetric in vivo retinal imaging with adaptive optics - optical coherence tomography; Optics Express 17, 4084-4094 (2009)<br>Christina Gerth, Robert J. Zawadzki, Elise Heon, John S. Werner, High-resolution retinal imaging of young children using a hand-held scanner and Fourier-domain OCT Journal of AAPOS 13, 72-74 (2009)<br>Christina Gerth, Robert J. Zawadzki, John S. Werner, Elise Heon Retinal microstructure in patients with EFEMP 1 retinal dystrophy evaluated by Fourier-domain OCT Eye 23,480-483 (2009)<br>Michael F. Marmor, Stacey S. Choi, Robert J. Zawadzki, John S. Werner Visual Insignificance of the Foveal Pit: Reassessment of Foveal Hypoplasia as Fovea Plana Archives of Ophthalmology 126, |



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Robert J. Zawadzki, Barry Cense, Van Zhang, Stacey S. Choi, Donald T. Miller, and John S. Werner Ultrahigh-resolution optical coherence tomography with monochromatic and chromatic aberration correction *Optics Express* 16 (11), 8126-8143 (2008)

Allison J. Smith, David G. Telander, Robert J. Zawadzki, Stacey S. Choi, Lawrence S. Morse, John S. Werner and Susanna S. Park High-Resolution Fourier-Domain Optical Coherence Tomography and Microperimetric Findings After Macula-off Retinal Detachment Repair *Ophthalmology* 115, 1923-1929 (2008)

Stacey S. Choi, Robert J. Zawadzki, John L. Keltner, John S. Werner Changes in Cellular Structures Revealed by Ultra-high Resolution Retinal Imaging in Optic Neuropathies *Investigative Ophthalmology & Visual Science* 49,2103-2119 (2008)

Steven N. Truong, Suhail Alam, Robert J. Zawadzki, Stacey S. Choi, David G. Telander, Susana S. Park, John S. Werner & Lawrence S. Morse High-resolution Fourier-domain optical coherence tomography of retinal angiomatous proliferation. *Retina* 27 (7), 915-925 (2007)

Robert J. Zawadzki, Stacey S. Choi, Steven M. Jones, Scot S. Olivier, John S. Werner. Adaptive Optics - Optical Coherence Tomography: Optimizing Visualization of Microscopic Retinal Structures in Three Dimensions. *Journal of Optical Society of America A* 24 (5), 1373-1383. 2007

Michael Pircher, Robert J. Zawadzki Combining adaptive optics with optical coherence tomography: Unveiling the cellular structure of the human retina in vivo *Expert Review of Ophthalmology* 2 (6), 1019-1035 (2007)

Robert J. Zawadzki, Alfred R. Fuller, David F. Wiley, Bernd Hamann, Stacey S. Choi, John S. Werner Adaptation of a support vector machine algorithm for segmentation and visualization of retinal structures in volumetric optical coherence tomography data sets. *Journal of Biomedical Optics* 12(4).

Christina Gerth, Robert J. Zawadzki, Stacey S. Choi, John L. Keltner, Susanna S. Park and John S. Werner. Visualization of Lipofuscin Accumulation in Stargardt Macular Dystrophy by High-resolution Fourier-Domain Optical Coherence Tomography. *Archives of Ophthalmology* 125, 575. 2007

Scot S. Olivier, Steven M. Jones, Diana C. Chen, Robert J. Zawadzki, Stacey S. Choi, Sophie Laut, John S. Werner. OCT sees the human retina sharply with adaptive optics. *Laser Focus World* 42 (2): 89.

Suhail Alam, Robert J. Zawadzki, Stacey S. Choi, Christina Gerth, Susanna S. Park, Lawrence Morse, John S. Werner. Clinical Application of Rapid Serial Fourier Domain Optical Coherence Tomography for Macular Imaging. *Ophthalmology* 113 (8), 1425-1431.



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Yan Zhang, Barry Cense, Jungtae Rha, Ravi S. Jonnal, Weihua Gao, Robert J. Zawadzki, John S. Werner, Steve Jones, Scot Olivier, Donald T. Mill. High-speed volumetric imaging of cone photoreceptors with adaptive optics spectral-domain optical coherence tomography. *Optics Express* 14 (10), 4380-4394.

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