Stanford OPHTHALMOLOGY | Stanford Center for Optic Disc Drusen, Byers Eye Institute

2021 Optic Disc Drusen Virtual Conference

Monday, May 17, 2021 • 8AM-3PM PST

Visit the ODD website:
med.stanford.edu/optic-disc-drusen

Visit our department website:
med.stanford.edu/ophthalmology

EVENT ORGANIZERS

Joyce Liao, MD, PhD
Director, Center for Optic Disc Drusen at Stanford
Professor of Ophthalmology and of Neurology

Jeffrey Goldberg, MD, PhD
Blumenkranz Smead Professor and Chair of Ophthalmology

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Agenda

all times in PST

Time	Topic	Speakers/Moderators
8:00am-8:02am	Welcome	Jeffrey Goldberg, MD, PhD
8:02am-8:10am	Introduction on Center and optic disc drusen	Joyce Liao, MD, PhD
8:10am-10:00am (110 min) *all talks are 10 min long with 5 min Q&A unless otherwise specified*	**Session I: Diagnosis and Ophthalmic Imaging of Optic Disc Drusen**	**Moderators:** **Joyce Liao, MD, PhD** **Steffen Hamann, MD, PhD**
8:10am-8:25am	Optical coherence tomography of optic disc drusen	Steffen Hamann, MD, PhD
8:25am-8:40am	*En face* imaging of optic disc drusen	Joyce Liao, MD, PhD
8:40am-8:55am	Pediatric optic disc drusen	Shannon Beres, MD
8:55am-9:10am	OCT angiography imaging of optic disc drusen	Yan Yan, MD, PhD
9:10am-9:25am	Optic nerve biomechanics in optic neuropathies	Heather Moss, MD, PhD
9:25am-9:40am	Neovascularization as complication of optic disc drusen	Diana Do, MD
9:40am-10:00am (20 min)	**Panel discussion on diagnosis and imaging**	**All speakers**
10:00am-10:10am	10 min break	
10:10am-12:00pm (110 min)	**Session II: Pathobiology of Retinal Ganglion Cells and Axons**	**Moderators:** **Michael Kapiloff, MD, PhD** **Tatjana Jakobs, MD**
10:10am-10:25am	Neuroprotection via manipulation of RGC signaling	Michael Kapiloff, MD, PhD
10:25am-10:40am	Longitudinal functional assessment of RGCs *in vivo* at single cell level	Yang Hu, MD, PhD

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Agenda Continued

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Time	Topic	Speakers/Moderators
10:40-10:55am	Glaucomatous Optic Neuropathy and Relevance to Optic Disc Drusen	Yang Sun, MD, PhD
10:55am-11:20am (25 min)	Reactive astrocytes in optic neuropathy models	Tatjana Jakobs, MD
11:20am-12:00pm (40 min)	**Panel discussion on RGC and axonal protection**	**All speakers**
12:00pm-1:00pm (60 min)	**Session III: Patient Stories and Discussion**	**Moderators: Shannon Beres, MD Joyce Liao, MD, PhD**
1:00pm-2:55pm (115 min)	**Session IV: Optic Disc Drusen Treatment and Natural History Studies**	**Moderators: Heather Moss, MD, PhD Leonard Levin, MD, PhD**
1:00pm-1:15pm	Neuroprotection and regeneration	Jeffrey Goldberg, MD, PhD
1:15pm-1:30pm	Visual stimulation and optic nerve regeneration	Andrew Huberman, PhD
1:30pm-1:45pm	Axonal protection and clinical trial considerations	Leonard Levin, MD, PhD
1:45pm-2:00pm	Optic disc drusen natural history study and clinical trial design	Quan Nguyen, MD, MSc
2:00pm-2:15pm	Reading center and ophthalmic image analysis	Yasir Sepah, MBBS
2:15pm-2:55pm (40 min)	**Panel discussion on optic disc drusen treatment and natural history studies**	**Moderators: All speakers and Diana Do, MD**
2:55pm-3:00pm (5 min)	**Meeting wrap up, surveys**	

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Speakers

Shannon Beres, MD
Clinical Assistant Professor of
Neurology & Ophthalmology
Stanford University

Dr. Shannon Beres is a pediatric and adult neuro-ophthalmologist. She is currently working on projects using hand-held optical coherence tomography in infants and young children. She contributes to multi-site studies in pediatric optic neuritis, cranial neuropathies, pseudotumor cerebri syndrome, and optic pathway gliomas.

Diana Do, MD
Professor of Ophthalmology
Stanford University

Dr. Diana Do is a clinician-scientist with over 15 years of experience leading clinical trials in the field of retina. Her research primarily focuses on designing and conducting trials to investigate novel therapies for retinal vascular diseases. She also has an interest in identifying imaging biomarkers to detect and monitor progression of ocular disorders.

Jeffrey Goldberg, MD, PhD
Blumenkranz Smead Professor and Chair of Ophthalmology
Stanford University

Dr. Goldberg's clinical effort is focused on medical and surgical intervention for treatment of glaucoma and other optic nerve diseases. His research is directed at neuroprotection and regeneration of retinal ganglion cells and the optic nerve. His laboratory is developing novel stem cell and nanotherapeutics approaches for treatment of vision loss.

Steffen Hamann, MD, PhD
Consultant Neuro-Ophthalmologist,
Clinical Research Associate Professor
University of Copenhagen, Denmark

Dr. Hamann's research interests center around optic neuropathies, where axonal compression and loss of blood supply lead to loss of vision. In 2015, he founded the international Optic Disc Drusen Studies (ODDS) Consortium, of which he is Chair. His goal is to investigate the etiology, diagnostic principles, structure-function relationships, and management of optic disc drusen.

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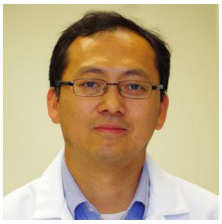

Yang Hu, MD, PhD
Associate Professor of Ophthalmology
Stanford University

Dr. Yang Hu is working on neuroprotection and axon regeneration for optic neuropathies. His lab focuses on the molecular mechanisms responsible for axon injury-induced neuronal degeneration with the goal of building on this understanding to develop effective combined strategies to promote neuroprotection, regeneration and functional recovery.

Andrew Huberman, PhD
Associate Professor of Neurobiology and of Ophthalmology
Stanford University

Dr. Huberman's goal is to understand how the brain allows us to sense, evaluate, and respond to the world around us. His lab is actively working on methods to re-wire and repair eye-to-brain connections in common blinding diseases such as glaucoma. He also works on visually-evoked emotions and how perception combines with internal states to drive behavior.

Tatjana Jakobs, MD
Associate Professor of Ophthalmology
Schepens Eye Research Institute of
Massachusetts Eye and Ear Infirmary
Harvard Medical School

Dr. Jakobs is a molecular and cell biologist specializing in research in retinal ganglion cell degeneration. Using various models of optic nerve damage, her laboratory aims to better understand the role of optic nerve astrocytes and microglia in the progression of vision loss in optic neuropathies like glaucoma and other conditions.

Michael Kapiloff, MD, PhD
Associate Professor of Ophthalmology
Stanford University

Dr. Kapiloff is an expert in cellular signaling with an interest in how specificity is conferred by multimolecular protein complexes called "signalosomes." His laboratory studies basic molecular mechanisms underlying the response of the retinal ganglion cell and cardiac myocyte to pathological stress. He is involved in the translation of these basic signaling concepts into new gene therapies for the treatment of retinal diseases and heart failure.

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Leonard Levin, MD, PhD
Distinguished James McGill Professor and
Chair of Ophthalmology and Visual Sciences
McGill University

Dr. Levin's clinical expertise is in neuro-ophthalmology, particularly optic nerve disorders. His research is on developing new drugs for these diseases, many of which are difficult or impossible to treat. This work involves laboratory science, animal models, and the design of clinical trials to test the safety and efficacy of the drugs.

Joyce Liao, MD, PhD
Director, Center for Optic Disc Drusen at Stanford
Professor of Ophthalmology and Neurology
Stanford University

Dr. Liao is dedicated to making basic discoveries and improving clinical care and treatment of patients with eye-brain issues. She serves as the Director for the Stanford Center for Optic Disc Drusen at Byers Eye Institute, Vice Chair of Academic Affairs, Director of the Neuro-Ophthalmology Service, as well as Co-Director of the Vision Research Training Program.

Heather Moss, MD, PhD
Associate Professor of Ophthalmology and of Neurology
Stanford University

Dr. Moss is a physician scientist who provides expert neuro-ophthalmic clinical care. She directs an innovative clinical-research program in biomarker discovery. Dr. Moss's clinical and research interests focus on idiopathic intracranial hypertension, optic neuritis and other optic neuropathies, and multiple sclerosis. She is also an expert in telemedicine.

Quan Nguyen, MD, MSc
Professor of Ophthalmology
Stanford University

Dr. Nguyen is an expert in medical and surgical retina, and he directs the Uveitis and Ocular Immunology Service and oversees the Uveitis Clinical and Research Fellowship Programs. Dr. Nguyen is known for his innovative work in early proof-of-concept, first-in-human clinical trials to evaluate potential pharmacotherapeutic agents for retinal vascular and uveitis diseases.

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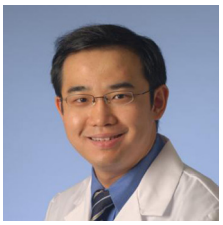
Yasir Sepah, MBBS
Senior Scientist
Stanford University

Dr. Sepah is an expert in clinical trial design and analysis of ophthalmic imaging. He is the co-founder of a Reading Center for clinical trials. He is a Senior Scientist at Stanford Department of Ophthalmology since 2016. His research interest includes design and initiation of early phase (I/II) multi-center clinical trials for various ocular conditions such as uveitis and ocular inflammatory diseases, diabetic macular edema and age-related macular degeneration.



Yang Sun, MD, PhD
Associate Professor of Ophthalmology
Stanford University

Dr. Yang Sun is a clinician-scientist with clinical specialty in glaucoma. He practices at both Byers Eye Institute at Stanford as well as at VA Palo Alto Health Care System. He is an NIH and VA funded investigator with research focus on the role of inositol metabolism in eye development and disease. The current research interests in his lab include the elucidation of the mechanisms in cilia-mediated signaling in developmental and degenerative eye conditions.

Yan Yan, MD, PhD
Attending Physician, Department of Ophthalmology
Jiao Tong University, China

Dr. Yan is a neuro-ophthalmologist and retinal specialist at the Department of Ophthalmology, Renji Hospital of Shanghai, Jiao Tong University, School of Medicine in China. He has published key ophthalmic imaging papers on optic disc drusen. His research interests include multimodal imaging of optic neuropathies and eye movement disorders in neurodegenerative diseases.