

Vision Science Problems in Medical Imaging

A Research Initiative of the National Cancer Institute
Basic Biobehavioral and Psychological Sciences Branch



Workshop Agenda

November 6-7, 2014

NIH Neuroscience Center

6001 Executive Boulevard, Rockville, MD

DAY 1

Time	Topic	Speaker/Moderator
9:00 – 9:15 am	Welcome and Introduction	Todd Horowitz
9:15 – 10:45 am	Session 1	<i>Moderator: Lynne Padgett</i>
	Connectomics for Neuro-oncology	Ragini Verma
	Context-Based Prediction in Vision	Nick Turk-Browne
	Discussion	
	Next-Generation Tomosynthesis	Andrew Maidment
	Expectations and Strategies in Visual Attention	Edward Vul
	Discussion	
10:45 – 11:00 am	Break	
11:00 am - 12:30 pm	Session 2	<i>Moderator: Kristin Litzelman</i>
	Imaging Methods in Pathology	Brandon Gallas
	Perceptual Organization and Attention	Cathleen Moore
	Discussion	
12:30 – 1:30 pm	Lunch	
1:30 – 3:00 pm	Session 3	<i>Moderator: Rebecca Ferrer</i>
	Non-Imaging Medical Displays	Raj Ratwani
	Optimizing Human Visual Search	Miguel Eckstein
	Discussion	
	Digital Imaging in Pathology	Yukako Yagi
	Foraging for Tumors (Apparently...)	Jeremy Wolfe
	Discussion	
3:00 – 3:15 pm	Break	

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Time	Topic	Speaker/Moderator
3:15 – 5:00 pm	Session 4	<i>Moderator: Annette Kaufman</i>
	Quantitative Imaging Biomarkers	Alicia Toledano
	Combining Behavioral and Computational Tools to Address Complex Search Tasks	Gregory Zelinsky
	Discussion	
	Classification Images in Forced Localization Tasks Show the Benefit of Shepp-Logan Filtering in CT	Craig Abbey
	Non-Human, Non-Silicon-Based Image Classifiers	Richard Levenson
	Discussion	
5:00 pm	Adjourn	

DAY 2

Time	Topic	Speaker/ Moderator
9:00 – 10:45 am	Session 5	<i>Moderator: Vinay Pai</i>
	Understanding Logarithmic Efficiency in Visual Search	Alejandro Lleras
	Visual Search for Malignancies in Screening Mammograms	Jay Hegde
	Discussion	
	Human Factors, Neuroergonomics, and Visual Search	Matt Peterson
	Multiple Target Search Strategies	Preeti Verghese
	Discussion	
10:45 – 11:00 am	Break	
11:00 am- 12:00 pm	Determine Gaps and Priorities for Future Research	Moderator: Todd Horowitz
12:00 pm	Adjourn	