



10th Symposium of the International Hydrocephalus Imaging Working Group

www.IHIWG.org

Held in Conjunction with the International Society of Hydrocephalus and Cerebrospinal Fluid Disorders

Banff, Canada, September 18, 2015



The Mission of the IHIWG is to advance the study of hydrocephalus utilizing a full range of imaging modalities.

Advances in the study of the pathophysiology of hydrocephalus and related disorders will come from combining the knowledge base of diverse groups attacking these problems from different disciplines including neuroradiology, biophysics/engineering, basic science and clinical neurology and neurosurgery. Each of these disciplines has its own language and skill set creating barriers to advancement of the science due to the lack of a common body of information. IHIWG is dedicated to breaking down these barriers leading to more rapid evolution of the understanding of hydrocephalus. To accomplish this vision, IHIWG will:

1. Hold international meetings expanded by virtual meeting using new meeting technology
2. Identify leaders who have the skill set and energy to work with others in searching for answers, developing protocols, and assisting the other members in structuring their research.
3. Facilitate cooperation among scientists, engineers and clinicians so that propinquity diminishes as a barrier to advancement.

IHIWG Symposium Program, September 18, 2015

Organized by: Bryn Martin, Hal Rekate, Vartan Kurtcuoglu & William Bradley

Session	Start	End	Perspective	Imaging method	Speaker / Item	Title
<i>Session I - Advances in MR elastography</i> Chair: Bryn Martin	8:00 AM	8:05 AM	N/A	N/A	Hal Rekate welcome	Welcome to the 10th IHIWG symposium
	8:05 AM	8:25 AM	Clinical	Elastography	John Huston III	Aging effects on regional brain stiffness
	8:35 AM	8:55 AM	Engineering	Elastography	Mark Wagshul	MR Elastography in chronically shunted hydrocephalus
	9:05 AM	9:25 AM	Engineering	Elastography	Ralph Sinkus	Functional MRE in the brain: Can scattering explain temporally increased stiffness?
	9:35 AM	9:55 AM	Engineering	Elastography	Lynne Bilston	MRE measurements during jugular compression
	10:05 AM	10:30 AM			<i>Coffee Break</i>	
<i>Session II - Brain volumetrics</i> Chair: Vartan Kurtcuoglu	10:30 AM	10:50 AM	Clinical	Tractography	Abhaya Kulkarni	Neuropsychological tests vs. DTI vs. ventricle volume
	11:00 AM	11:20 AM	Engineering	MRI volumetrics	Jason Mandell	Volumetric brain analysis in neurosurgery
	11:30 AM	11:50 AM	Clinical	MRI / other	Hal Rekate	Is the brain really necessary?
	12:00 PM	1:00 PM			<i>Lunch</i>	
<i>Session III - Fetal and adult hydrocephalus</i> Chair: Lynne Bilston	1:00 PM	1:20 PM	Clinical	Fetal MRI	Charles Raybaud	MR assessment of fetal hydrocephalus
	1:30 PM	1:50 PM	Clinical	MRI	William Bradley	Deep white matter ischemia: is it the second hit in NPH and aqueductal stenosis?
	2:00 PM	2:20 PM	Clinical	MRI	Ari Blitz	Adult Hydrocephalus: Can We Put the Pieces Together?
	2:30 PM	3:00 PM			<i>Coffee Break</i>	
<i>Session IV - CSF physiology and modeling</i> Chair: Hal Rekate	3:00 PM	3:20 PM	Clinical	Microscopy	Maria Lehtinen	Instructive cues for neural stem cells in the cerebrospinal fluid
	3:30 PM	3:50 PM	Engineering	Computational	Vartan Kurtcuoglu	Computational model of tracer transport reduction due to AQP4
	4:00 PM	4:20 PM	Clinical	Real-time PC MRI	Steffi Dreha-Kulaczewski	Breathe in to drive CSF flow
	4:30 PM	4:50 PM	Engineering	MRI / Comp.	Bryn Martin	Reliability of 4D PCMRI measurement of CSF motion