



Connectivity Course 2017Oct23 Schedule

Structural and Functional Connectivity via MRI
October 23-27, 2017



All classes will be held in the Research Affairs Conference room in Building 149 at the WEST end of the building on the first floor.

NOTE: Overall all content will be as shown. Exact timing is subject to change.

Day 1 Orientation, Introductions, Data Acquisition and Anatomy

8:30 - 9:00	- 1 -	Welcome and Overview	Robert Savoy
9:00 - 10:00	- 2 -	Multivariate Analysis and Connectivity	Robert Savoy
10:15 - 11:00	- 3 -	Quick Review of Basics of NMR and MRI; Sources of Signal and Contrasts: BOLD Contrast, Diffusion Imaging Contrast; Safety, HRC/IRB Considerations	Robert Savoy
11:00 - 12:00	- 10 -	Reproducibility	David Kennedy
12:00 - 1:00		<i>Lunch</i>	
1:00 - 3:00	- 4 -	Clinical Overview and Motivation	Michael D. Fox
3:30 - 4:30	- 5 -	White Matter Anatomy	Anastasia Yendiki
4:30 - 5:00	- 6 -	Advanced Acquisition Techniques (MultiChannel/MultiSlice)	Kawin Setsompop
5:00 - 6:00		Discussion (with possible tour) of MRI and Seed-Based Connectivity Data	Imaging Faculty

Day 2 Diffusion Imaging; Other topics in the afternoon

9:00 - 11:00	-7, 8, 9 -	Diffusion MRI & Tractography (Basics; Tractography; Hands-on Demonstrations)	Anastasia Yendiki
11:00 - 1:00	- 13 -	Applications of Resting State Connectivity Data in Psychiatric Disease	Sue Whitfield-Gabrieli
1:00 - 1:30		<i>Lunch (short lunch today due to various scheduling issues)</i>	
1:30 - 3:30	-7, 8, 9 -	Diffusion MRI & Tractography (Basics; Tractography; Hands-on Demonstrations)	Anastasia Yendiki
3:30 - 4:15	- 11 -	Graph Theoretical Approaches to Connectivity Analysis	Jorge Sepulchre

Day 3 Seed-Based Functional Connectivity Analysis

9:00 - 1:00	- 12, 13-	Seed-based fc-fMRI: Acquisition, Initial Processing, Artifact Rejection (The ART Toolbox) Analysis of Individuals and Groups (The CONN Toolbox)	Sue Whitfield-Gabrieli & Sheeba Arnold
1:00 - 2:00		<i>Lunch</i>	
2:00 - 3:00	-16 -	More Exercises with the CONN Toolbox	Sheeba Arnold
3:15 - 4:00	- 22 -	fcfMRI at 7 Tesla (and informal discussion of academia vs industry; Pfizer)	Koene Van Dijk
4:15 - 5:30	- 23 -	Dynamic Functional Connectivity (and informal discussion as above; Biogen)	R. Matthew Hutchison

Day 4 ICA-based Functional Connectivity Analysis

9:00 - 10:00	- 17-	ICA Analysis of resting state data (Part 1)	Vince Calhoun
10:15 - 11:15	- 18 -	ICA Analysis of resting state data (Part 2)	Vince Calhoun
11:30 - 12:30	- 19 -	ICA Analysis and Software Exercises (Part 3)	Vince Calhoun
12:30 - 1:30		<i>Lunch</i>	
1:30 - 3:00		ICA Analysis and Software Exercises (discussion)	Vince Calhoun
3:15 - 4:30	- 14 -	Network Connectivity; Individual Differences; Neurodegenerative Disease	Bradford Dickerson
4:30 - 5:15		Informal Discussion on Presurgical Mapping (general informal discussion)	Hesheng Liu
6:00 - 7:00		<i>Dinner in the Atrium —> Yes, for about 20 people</i>	

Day 5 Realities? Panel Discussion

9:00 - 10:00	- 21 -	Testing the Reality of it all...	Doug Rosene
10:00 - 11:00		CONN toolbox review; Other	Sheeba Arnold and Sue Whitfield-Gabrieli
11:00 - 12:00		General Discussion; Closing Joke	
12:00 - 1:00		Discussion of Diffusion Issues and/or review of Tracula/TrackVis/Diffusion Toolkit	Anastasia Yendiki