

	September 9th	September 10th	September 11th	September 12th	September 13th
Morning	General presentation / What's hot in Neurophysiology (Casado)	Ion channels (Casado)	W1	Methods in electrophysiology (Casado)	W1
Afternoon	Recalling some notions on electricity (Gendrel) / Guidelines for project (Gendrel)	TD: Recalling some notions on electricity (Gendrel) / Electrical properties of excitable membranes (Casado)	W1	Methods in electrophysiology (Casado) / Thalamus and cerebellum as playfields (Casado)	W1
	September 16th	September 17th	September 18th	September 19th	September 20th
Morning	W2	W2	W1 and protocol writing	Patch-clamp techniques (Lambert)	Optogenetics (Dugué)
Afternoon	W2	W2	W1 and protocol writing	W5a (in vitro analysis) (Lambert)	W3
	September 23rd	September 24th	September 25th	September 26th	September 27th
Morning	W4-T1 / W3	W4-T2 / W3	W5a (in vitro analysis) @SU, <i>salle TBA</i> (Lambert)	W4-T3 / W3	Linking neuronal activity to behaviour (Faure)
Afternoon	W4-T1 / W3	W4-T2 / W3	W3	W4-T3 / W3	
	September 30th	October 1st	October 2nd	October 3rd	October 4th
Morning	W5b (in vivo analysis) @SU <i>salle TBA</i> (Marti)	W5b (in vivo analysis) @SU <i>salle TBA</i> (Léna)	Numerical methods (Ranft)		
Afternoon	W5b (in vivo analysis) @SU <i>salle TBA</i> (Marti)	W5b (in vivo analysis) @SU <i>salle TBA</i> (Léna)	Numerical methods (Ranft)		Examination (Ens-Bio, <i>salle 324</i> )

•W1. Workshop "Setting up an electrophysiology rig in 3 days" from 9h30.

•W2. Workshop "Analog and digital electronics for electrophysiologists" (2days, Barbour) from 9h30

•W3. Workshop "Patch-clamp experiments in slices" (5days) (V-clamp/C-clamp, spontaneous/evoked, I-V, excitation/inhibition, Casado, Lambert). Focus on cerebellum or thalamus. Morning from 9h30 (2-3 students shadowing slice preparation, Casado). Afternoon experiment from 13h30.

•W4. Workshop "In vivo Neurophysiology" (1day x 3 groups) (Marti) from 13h30

•W5. Workshop "Analyzing electrophysiological data" (3day) from 9h30. W5a. 1 day in vitro data analysis. Synaptic data in V-clamp and C-clamp; V-dep conductances (Lambert). W5b. 2 day in vivo data analysis. *Data preprocessing: data filtering, cluster cutting, stimulation time extraction, creation of matrices exploitable by R, Matlab, Python or Igor* (Marti). Data analysis: PSTH, auto, cross-correlograms, correlating activity and EEG (Léna)

W1, W2, W3: Ens, room 305. W4, W5: SU@Jussieu.

W4: 3 teams of 4 students (T1, T2, T3)