

Xenopus Genome Editing Workshop 2019 Syllabus

Instructors: Marko Horb, Doug Houston, Rachel Miller, Gary Gorbosky, Hitoshi Yoshida, Thomas Naert, Marcin Wlizla, Nikko Shaidani

Time	Oct 14 (Mon)	Oct 15 (Tue)	Oct 16 (Wed)	Oct 17 (Thur)	Oct 18 (Fri)	Oct 19 (Sat)	Oct 20 (Sun)	Oct 21 (Mon)	Oct 22 (Tue)	Oct 23 (Wed)	Oct 24 (Thur)	
7:00	Breakfast											
7:30												
8:00												
8:30												
9:00	Morning meeting										Check out and Departure	
9:30	Lecture 1: Microinjection and sgRNA synthesis (Marcin)	Injection of custom sgRNAs	OHT demo Injections/Genotyping Embryo sorting	Injections/Genotyping Embryo sorting	F0 genotyping results/ Injections	Nuclear Transfer	Injections/ Genotyping	Genotyping/ Embryo Sorting	Create mutants for NXR to grow			
10:00	Synthesis of custom sgRNAs											
10:30	Check-in	Injection of control sgRNAs/ Synthesis of sgRNAs	Injection/ Embryo Sorting	Oocyte Host Transfer Xenopus Cell Line Intro	Genotyping	Flexible Time / Martha's Vineyard	Nuclear Transfer (cont'd) F0 genotyping results Injections	Injections/ Genotyping Web punches	Web punches Create mutants for NXR to grow	Create mutants for NXR to grow		
11:00												Lecture 2: Introduction to genome editing (Marko)
11:30												
12:00	Lunch											
12:30	Dinner											
1:00												
1:30												
2:00												
2:30												
3:00												
3:30												
4:00												
4:30	Course intro and expectations											
5:00	Lecture 3: Navigating the Xenome and sgRNA design (Nikko)	Lecture 5: Evaluation of F0 CRISPR mutants (Rachel)	Lecture 7: Mechanisms of homology directed repair (Marko)	Lecture 9: Generating cell lines (Gary)	Flexible Time	Lecture 11: Generation and evaluation of F1/F2 mutants (Marcin Wlizla)	Lecture 13: CRISPR cancer models (Thomas Naert)	Lecture 15: Practical aspects of Xenopus husbandry (Nikko)	Wrap up and evaluations			
5:30	Lecture 4: Genotyping options (Rachel)	Lecture 6: HDR via oocyte host transfer of edited GV's (Doug)	Lecture 8: CRISPR base editing (Thomas Naert)	Lecture 10: F0 mutants by nuclear transfer (Hitoshi)		Lecture 12: Biochemistry of CRISPR/Cas (Thomas Naert)	Lecture 14: Recent advances in Genome editing (Marko)					
6:00	Student talks	Student talks	Student talks	Student talks	Student talks	Student talks	Student talks	Student talks				
6:30												
7:00												
7:30												
8:00	Dinner											
8:30	Wrap up and evaluations											
9:00												
9:30												
10:00												