

Molecular Techniques – Fall 2017 Project Options

<u>Group Spinella</u>		<u>Team Provost</u>	
<i>Team members</i>	<i>Project Description</i>	<i>Team members</i>	<i>Project Description</i>
3	MDH1 & MDH2- FRET Constructs	3	CHP 1 & 2 Hybrid
4	wgMDH & CS – FRET Constructs	3	CS – GST w/TEV site Subclone
3	MDH1 & MDH2- Epitope Tag Construct	4	cpMDH & TvMDH pET w/TEV Subclone
3	wgMDH & CS Epitope Tag Construct	3	Fusion Cloning – Taq and GFP

Team responsibilities:

- Use our book and website for primary information before looking elsewhere.
- Create a simple description of the project
- Consider and describe critical issues (reading frame and so on) for your project.
- Write out an outline of the project – each step should be a bullet –see the cloning check.
- Your group will present this project to the class and to your instructor (see cloning report).
- IF you are adding or using a restriction digest, show it isn't in your target.
- EVERYTHING must be labeled with your group initials, dates and the name of the product. The final name of your product MUST be approved by the instructor.
- You WILL sequence your final result. You may have to use a stock primer or design a primer for sequencing.
- When your project is done you should have a verified cloned by gel and sequence analysis, purified plasmid DNA, glycerol stock of your DNA in DH5 alpha cells, lab book with all information, protocols, calculations, observations, conclusions data... Anyone should be able to understand what is done step by step and recreate your experiment without fail.
- For each assay/technique/step – identify ALL reagents and create a list PRIOR to starting the experiment. This will be in the lab book. ANY enzymes, primers and so on MUST be pre-approved with Dr. Provost/Spinella with a minimum of a one-week lead to order. Some items are too expensive order so checking well in advance will minimize issues. Don't assume everything is ready to go. *In fact, assume nothing is ready for you to use.*

Timeline and Milestone

- Tues Nov 14 - Start group planning.
- Thurs Nov 16 - Meet with Instructor. Use the "Initial Instructor Planning Sheet" to work with the instructor on your project. ALSO AS A CLASS you will need to class prep LB plates and antibiotic with appropriate media.
- Tues Nov 21 - 5 min presentation to class and "shopping list" due. Start working on project (will need to start cultures on MONDAY to begin mini or midi prep of DNA on Tuesday)
- Thurs Nov 23 – Thanksgiving
- Tues Nov 28 – Project
- Thurs Nov 30 – Project & 5 min check-in with instructor
- Tues Dec 5 – Project
- Thurs Dec 7 – Project
- Tues Dec 12 – Project
- Thurs Dec 14 – Project Presentation, turn in final tech sheet/report