

Task #9

Communicating your Science to your Mentor!

Due: Friday, November 10th

Part I: Introduce yourselves!

Create a brief document featuring your team. This will be presented to your Mentor so they can get to know you. It should be professional... but also fun! Include your School name and logo, a group photo (you can also add individual pictures if you wish) of team members and advisor(s), names of team members identified in the picture(s), and a short biography for each member (advisors too). Each member's bio should include: name, grade, # of years on SMART Teams, what you hope to gain from SMART Teams, and a fun or interesting personal fact or story about you.

***TEACHERS NOTE:** Ensure all students have signed the media release form by now and they've been submitted to Judy. If a student prefers not to be photographed or identified, make sure they are not in the group picture. You may opt to include a cartoon caricature with first name, nickname or initials only. We plan to post team photos on the SMART Team website for SMART Team recognition purposes.

Part II: Communicating your Science

This is your SMART Team's opportunity to practice effectively communicating a molecular story about your qualification model in an 8-10 minute presentation to your Mentor. It should be a small-scale, oral and visual presentation, showcasing the knowledge and skills your team has acquired during the Qualification Phase. Consider your Mentor to be the target audience as your Team develops their presentation. Keep in mind that your "audience" is informed in scientific topics, but most likely not be an expert in Glutathione-S-Transferase.

Begin preparations by brainstorming how you would like to deliver your molecular story in both an interesting and informative way. You must incorporate the Jmol model of GSTe2 in your presentation. **Bring a computer with your model design file** to stimulate a meaningful conversation with your mentor (we will try to have your 3D models done before this meeting, but we cannot guarantee this). Your presentation may take a number of different forms. Teams may choose a PowerPoint presentation, a display board or a skit to tell your qualification model story. Try to make it fun and/or interesting, while still maintaining scientific accuracy and clarity.

Use the information in your abstract and model design when developing your presentation:

1. What "hook" will you use to capture the interest of your mentor? Identify the "big picture" significance.
2. What is the name and pdb file of your qualification model protein?
3. How was the structure of the qualification model determined?
4. What is the primary citation for your model, and who are the authors? Where are they from? What techniques did they use?
5. How does your protein's structure determine how it functions? **Use your model design** to discuss the overall shape/size of your protein, and point out specific domains and secondary structures displayed in your model.
6. What significant amino acids contribute to the protein's structure and function? Why are they significant?
7. Has a significant ligand been highlighted in your model design? Why are these important?
8. What should current and future research focus on regarding this protein? Why is this research important?

Part III: Prepare to Meet the Mentors!

By this time, your Mentors are ready and excited to meet you and get to work. We hope you feel the same way! There are a few things we'd like you to do prior to meeting your mentor at the Mentor Match meeting on **Wednesday, November 15th**.

1. Be ready to **introduce your Team** and your School. Designate one or a few students in advance who will stand up and introduce the team. What is a fun or interesting fact about your school? Where are you located? How long has your school had a SMART Team? Feel free to bring some school swag to show off... a school banner or flag, wear your school colors or logos... etc.
2. We recommend bringing a **small gift** of school swag to present to your Mentor as an early "thank you" gift... perhaps a nice coffee mug, lanyard, set of pens/pencils... or get creative! It should not be costly.
3. Prepare **3 questions** that you would like to ask the panel of mentors. Prior to meeting your specific mentor there will be an opportunity to ask the mentors some of your burning questions. Take some time to think about what you would like to know about the life and career of a research scientist!

Additional Mentor Match notes:

- **Bring a hard copy of your Team's "Introduce Yourself" document** to give to your mentor so they can become familiar with the members of your Team.
- You will need to use your team's model design of GSTe2 in your presentation to your mentor. Please **bring a laptop with your model design file** loaded and ready to show your researcher.
- Don't forget to bring your **Presentation!** ... and your **3 questions** ... and your **small gift!**
- **Practice!** Practice your presentation for your Mentor. Be prepared for questions your mentor may pose to your Team about GSTe2. In fact, brainstorm in advance what those questions might be! Maybe you can do a practice presentation for your parent, or another Teacher in school to prepare. If your mentor asks a question to which you do not know the answer, an appropriate response would be, "Great question! I don't know the answer to that right now, but we will look into it and get back to you" ... and then ensure that you actually do that. Do NOT make up an answer.
- **Professional Attire & Behavior:** While you don't need to go as far as wearing a suit or a dress, we do ask that you dress neatly and cleanly, and move, speak and behave in a professional manner. Overly-casual attire (ripped jeans, athletic pants, spaghetti straps, inappropriate slogans, etc.) is not appropriate for any SMART Team event. School-logo shirts are great! If in doubt about what to wear, ask your Teacher.
- **Bring a calendar** to schedule a lab visit with your Mentor (plan for anytime between now and early March).

Email Judy (birschbach@msoe.edu) your

1. "Introduce Yourself" document (Part I)
2. Plans for your presentation of GSTe2 to your mentor (Part II)
3. 3 questions for the Mentors (Part III) by

Friday, November 10th.

First, second and third place WILL be awarded for Presentation Phase Task #9!