Some suggestions for BMI Pre-Proposal Talks

The purpose of the Pre-Proposal is to define an area of informatics research that will help address a driving biological/medical problem, explain how the problem has been addressed by techniques in the current informatics literature, and describe your plan to extend or create new techniques that will help resolve the problem.

Make sure to describe what researchers have done previously to advance the art. Highlight the problems that remain that you are proposing for your thesis (both in the application space and the methods space).

One goal of the pre-proposal talk is to **define the limitations of the current approaches ("the hole").** For example, current methods may make assumptions that don't fit the data, may not take advantage of newly available datasets, are not able to scale appropriately, or frame the problem in such a way that the methods are not useful for a specific biomedical problem. Defining the limitations of current methods provides the foundation for you to propose how you plan to "fill the hole."

You should describe your research in progress in this area, and your ideas of how you would approach making progress on this problem area. If you have evaluated your ideas or plan an evaluation, you should describe your approach for validating your hypothesis. Preliminary results are not absolutely required in order to present the pre-proposal talk, but are helpful to define your research direction and feasibility.

- Use the Informatics Journal Club and Research Talk Template with emphasis on the informatics challenges and approaches**.** Consider this as being like a full hour version of your 15-minute quals talk.

- An understanding of the informatics problem and the biomedical problem in depth is critical, and a recognition that they are not the same!

- The description in the background/previous work section is sometimes too shallow. The first 5-10 minutes of your talk should be understandable to everyone. The middle/meat of the talk should be addressed to people with a technical understanding of your proposed methodological approach and/or application area. Conclude with a high level summary to help the entire audience to understand your approach and it advantages/disadvantages.

- This is an important presentation. Take advantage of the opportunity for feedback by inviting collaborators, potential committee members, and others that may be interested in your topic.