

GMS-BI-793 Lecture 8 “Affinity Mass Spectrometry”  
Problem set, due in class April 2, 2019

1. Describe the strengths and limitations of the following methods for protein quantification.
  - a. iTRAQ
  - b. mTRAQ
2. Propose appropriate methods for a phosphoproteomics experiment. Justify your answers.
  - a. What methods would you use to enrich for phosphoproteins/peptides?
  - b. What methods would you use to determine sites of phosphorylation on the peptides?
  - c. What methods would you use to quantify phosphopeptides?
3. Describe the strengths and limitations for the following methods for glycoproteomics.
  - a. The hydrazide method (Zhang et al, slide 60)
  - b. The MLAC method (Plavina et al, slide 62)
  - c. The glyco-FASP method (Zielinska et al, slide 63)