Multiplexed spectra

1. Improving library search
   1. Speedup strategies:
      1. peak signatures (e.g., rank order or cosine with top 5 peaks in the library or top k out of n),
      2. sequence tags
   2. Projected cosine metrics
   3. LP combination metrics – adapt from FLR paper
      1. 2D LP with LCMS features
   4. Equivalence of searching library against data or data against library
2. Improving database search
   1. MixDB scoring models
   2. FDR models for combined spectrum matches
   3. New/future work: MixGF: conditional vs joint
      1. Extension to multiple:
         1. use peptide abundance ranges in spectrum
         2. “Projected ranks” – relative ranks between matched peptide peaks
   4. New/future work: Single-peptide match filters: sequence tags
   5. New/future work: Using retention time mux or de-mux?
3. Spectral networks of multiplexed spectra

Preliminary data/figures

* Confirmed
* Possible
  + Paper figures/equations/text
    - M-SPLIT
    - MixDB
    - MixGF
    - SLGF 🡪 Mixture-SLGF
    - Review with Anne-Claude
    - FLR
  + SWATH preliminary results