

Mass Spectrometry-based Multi-Omics: Combinations of Proteomics, Metabolomics, and/or Lipidomics

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Abstract

Introduction

Here is where we briefly go over the following:

1. Cover other reviews
2. What is proteomics
3. what is metabolomics
 - polar metabolomics
 - lipidomics
4. what does multi-omic integration mean?

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Sample Preparation for Multi-Omic Analysis

1, sample preparation for proteomics

2, sample preparation for metabolomics 2.1 non-targeted metabolomics

2.2 targeted metabolomics

2.3 lipidomics

doi:10.1038/nprot.2016.156

<https://www.nature.com/articles/s41596-020-0341-5>

<https://pubs.rsc.org/en/content/articlelanding/2020/an/d0an01149e/unauth>

<https://journals.asm.org/doi/10.1128/mSystems.00043-16>

References

1. **Quantitative shotgun proteome analysis by direct infusion**
Jesse G Meyer, Natalie M Niemi, David J Pagliarini, Joshua J Coon
Nature Methods (2020-12) <https://www.nature.com/articles/s41592-020-00999-z>
DOI: [10.1038/s41592-020-00999-z](https://doi.org/10.1038/s41592-020-00999-z)
2. **Charge state coalescence during electrospray ionization improves peptide identification by tandem mass spectrometry.**
Jesse G Meyer, Elizabeth A Komives
Journal of the American Society for Mass Spectrometry (2012-05-18)
<https://www.ncbi.nlm.nih.gov/pubmed/22610994>
DOI: [10.1007/s13361-012-0404-0](https://doi.org/10.1007/s13361-012-0404-0) · PMID: [22610994](https://pubmed.ncbi.nlm.nih.gov/22610994/) · PMCID: [PMC6345509](https://pubmed.ncbi.nlm.nih.gov/22610994/)