

Metabolomics Resources

Metabolomics Resources:

1. Metabolomics Databases

- LC-MS Databases (Liquid Chromatography-Mass Spectrometry): LC-MS research data for download can be accessed done through various repositories and databases where researchers often deposit their datasets for public access. Some prominent sources include:
 - Metabolomics Workbench: Provides a vast collection of metabolomics data, including LC-MS datasets, along with associated metadata and experimental details.
 - MetaboLights: A repository for metabolomics experiments, it houses a wide range of datasets, including LC-MS data, and offers tools for visualization and analysis.
 - 3. <u>MassIVE</u> (Mass Spectrometry Interactive Virtual Environment): Focuses on MS data, offering access to high-quality datasets including LC-MS, proteomics, and other omics datasets.
 - 4. GNPS (Global Natural Products Social Molecular Networking): Particularly useful for natural product research, it hosts LC-MS datasets and enables molecular networking to explore chemical diversity.
 - 5. <u>PRIDE Archive</u>: While primarily for proteomics data, it also includes some metabolomics datasets, including LC-MS data.
 - European Bioinformatics Institute (EBI) Metabolomics: Offers access to metabolomics datasets, including LC-MS data, along with analysis tools and resources.
 - 7. <u>DataCite</u>: An open repository that aggregates datasets from various disciplines. You can search for specific LC-MS datasets within its collection.
 - 8. <u>BMRB (Biological Magnetic Resonance Bank)</u>: A repository for NMR spectroscopy data related to biomolecules.
 - 9. <u>MetaboLights</u>: A repository for metabolomics data, including LC-MS datasets related to metabolomics research.
 - 10. <u>Human Metabolome Database (HMDB)</u>: Contains metabolomic data, including NMR spectra, for human tissues and biofluids.
 - 11. SpectraBank: A repository for various spectroscopic data, including NMR

- spectra.
- 12. MRShiftDB: A database specifically focused on organic structures and their NMR spectra.
- 13. <u>CCPN (Collaborative Computational Project for NMR)</u>: Offers tools, software, and access to NMR data.
- 14. <u>Chemical Shift Repository (CSR)</u>: Provides a platform for storing and sharing chemical shift data.
- 15. <u>Cambridge Structural Database (CSD)</u>: Contains a vast collection of small molecule crystal structures, some of which may include associated NMR data.
- 16. <u>Spectral Database for Organic Compounds (SDBS)</u>: Contains NMR, IR, MS, and Raman spectra for various organic compounds.
- 17. <u>ACD/NMR Predictors</u>: Offers software for NMR prediction and includes access to a database of predicted spectra.

2. NMR Databases

- 1. <u>BMRB</u> (Biological Magnetic Resonance Bank): A repository for NMR spectroscopy data related to biomolecules.
- 2. <u>MetaboLights</u>: While primarily for metabolomics data, it also hosts NMR datasets related to metabolomics research.
- 3. <u>HMDB</u> (Human Metabolome Database): Contains metabolomic data, including NMR spectra, for human tissues and biofluids.
- 4. <u>SpectraBank</u>: A repository for various spectroscopic data, including NMR spectra.
- NMRShiftDB: A database specifically focused on organic structures and their NMR spectra.
- 6. <u>CCPN</u> (Collaborative Computational Project for NMR): Offers tools, software, and access to NMR data.
- 7. <u>Chemical Shift Repository (CSR)</u>: Provides a platform for storing and sharing chemical shift data.
- Cambridge Structural Database (CSD): Contains a vast collection of small molecule crystal structures, some of which may include associated NMR data.
- 9. <u>Spectral Database for Organic Compounds (SDBS)</u>: Contains NMR, IR, MS, and Raman spectra for various organic compounds.
- 10. <u>ACD/NMR Predictors</u>: Offers software for NMR prediction and includes access to a database of predicted spectra.
- 1. Metabolomics Books

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