

Leveraging RCSB PDB APIs for Bioinformatics Analyses and Machine Learning



Virtual
Crash
Course

Registration:

go.rutgers.edu/41ds618a

This virtual course consists of 2 parts:

Part 1: Introducing RCSB APIs

October 12th 16:00 - 18:00 UTC

(October 12th 12:00 - 2:00 PM EDT / 9:00 - 11:00 AM PDT)

The lectures in this session will introduce you to the two main RCSB PDB APIs: Data API and Search API.

After completion of this session, you will

- Understand the data structure and its relation to the PDBx/mmCIF dictionary and external data
- Become familiarized with the two available interfaces in the Data API: GraphQL and REST
- Write search queries with one or multiple search conditions to find PDB identifiers
- Be familiar with search services beyond text: sequence, seqmotif, structure, chemical, strucmotif
- Become acquainted with the Python client for Search API

Part 2: Hands-on exercise

October 19th 16:00 - 18:30 UTC

(October 19th 12:00 - 2:30 PM EDT / 9:00 - 11:30 AM PDT)

or

October 27th 00:00 - 02:30 UTC

(October 26th 8:00 - 10:30 PM EDT / 5:00-7:30 PM PDT)

In this guided session, you will work with an example of a typical workflow that integrate Data and Search APIs and then apply the knowledge to your own specific problem



SEARCH
API



DATA
API

Who should attend

- Bioinformatics or structural biology researchers
- Researchers that need to cross-reference PDB and data from other resources
- Anyone interested in large scale analyses of structural data (experimental or computational)

Upcoming Courses



Scan this QR code to sign up for email updates about this and upcoming courses offered by the RCSB PDB (rcsb.org) and the Rutgers Institute for Quantitative Biomedicine (iqb.rutgers.edu)

Co-organizers



RCSB Protein Data Bank
rcsb.org



Institute for Quantitative
Biomedicine (IQB)
iqb.rutgers.edu