

# Level 1: Use Public C3 AI COVID-19 Data Lake Only

For many researchers, accessing the public API for the COVID-19 Federated Data Image will be enough for their research goals. The public API provides fetch access to many Data Lake objects, and metrics access to some time series data such as case data.

## Pros:

- Easy to integrate into existing scientific workflows and run on existing scientific computational hardware.
- Publicly available API means no credentials or special software are needed.
- Assuming you have access to your own computational resources, you don't have to worry about allocations on C3 AI's platform.

## Cons:

- All data used from the Data Lake must be streamed to wherever you're processing data.
- Performance benefits from working with the Data Lake using C3 AI Suite will not be available.
- Not all data within the Data Lake is available through the public API.

## Training Curriculum

Following this guide is enough to get started.

You'll need to have [asked for access](#) to see the API doc pages:

1. Go to the [API docs link](#), choose "Get Access" from the left sidebar, and fill out the simple form.
2. Follow the "Confirm Email" link in the email you receive automatically upon submitting the form (subject: "C3 AI COVID-19 Data Lake - Confirm Email").

**Note:** Save that email! There is no account creation to access the API, but you will need to follow the "Confirm Email" link again if you access from another browser in the future, if your cookies get cleared, etc.

## Official C3 Public COVID-19 API Documentation

Official C3 AI documentation related to the COVID-19 Data Lake Public API. This documentation:

- Describes the publicly available API.
- Comes with plenty of examples showing how to use the API.
- Comes with a python notebook and R notebook showing exactly how to use this API.

Researchers may find they do not need to read all of this document. We recommend reading at least to the section 'Using C3.ai APIs'. The rest of the document gives examples on how to fetch the various available data types.

## Example Workflows

Follow these examples to more fully understand the C3 AI platform and compose more complex data analysis.

- [Official C3 Public COVID-19 API Documentation](#)
  - Worked examples in both Python and R are available from the link above.
- [Cases example \(Public API\)](#)
- [Vaccine Listing example \(Public API\)](#)
- [Epidemiology example \(Public API\)](#)
- [Phylogenetic Tree building example \(Public API\)](#)

## Additional References

While not necessary, some researchers may find these optional references useful:

- [Differences Between Public API and Full C3 AI COVID-19 Data Lake](#)
- [C3 AI COVID-19 Data Lake Public API Tips and Tricks](#)
- [DTI Guide: Utilizing C3 AI Documentation](#)