ORCID API: The Basics

What is the ORCID API?

- **ORCID** = Open Researcher & Contributor Identifier (learn more about ORCID)
- **API** = Application Programming Interface (APIs allow machine-to-machine communication between different software systems)
- The **ORCID API** provides instructions for configuring a system to communicate with the ORCID registry and thus individual researchers’ ORCID iD records
- ORCID provides two API options:
  - **Public API** - Anyone with an ORCID iD can use the API to search for and read publicly visible data in ORCID
  - **Member API** - Member organizations can use the API to connect with their affiliated researchers’ ORCID iD records as “trusted parties” to read public & limited-access data as well as to write data to ORCID records

What are the benefits of using the ORCID Member API?

The ORCID Member API allows research institutions to gather authenticated ORCID iDs and read and write the following types of data on an individual’s ORCID record electronically to save time and reduce administrative burden:

- Biographical information
- Past and current employment, education, memberships, & service
- Funding awards received
- Works and contributions, including peer review activity
- Research resources used (such as labs, facilities, equipment, collections, etc.)

What systems can use the ORCID API?

Any system can be configured to integrate with the ORCID API, although vendor systems require the vendor to configure the integration, whereas open source or home-built custom systems require a developer to configure the integration. Common types of systems include central ID management and HR systems, research reporting and profiling, grants management, publishing, and repositories (see a list of common systems in the US and ORCID workflows for various types of systems).

How does the ORCID API work?

- The basis of the ORCID API is OAuth 2.0, which enables authenticated connections between researchers’ ORCID iD records and a system (see ORCID’s OAuth workflow)
- Data is transferred between the ORCID registry and systems via XML or JSON
- ORCID is a RESTful API: HTTPS calls are required to communicate between the ORCID registry and a system (see tutorials)

Where to go for more information?

Start exploring the ORCID APIs and learn how to get started with a custom integration.