



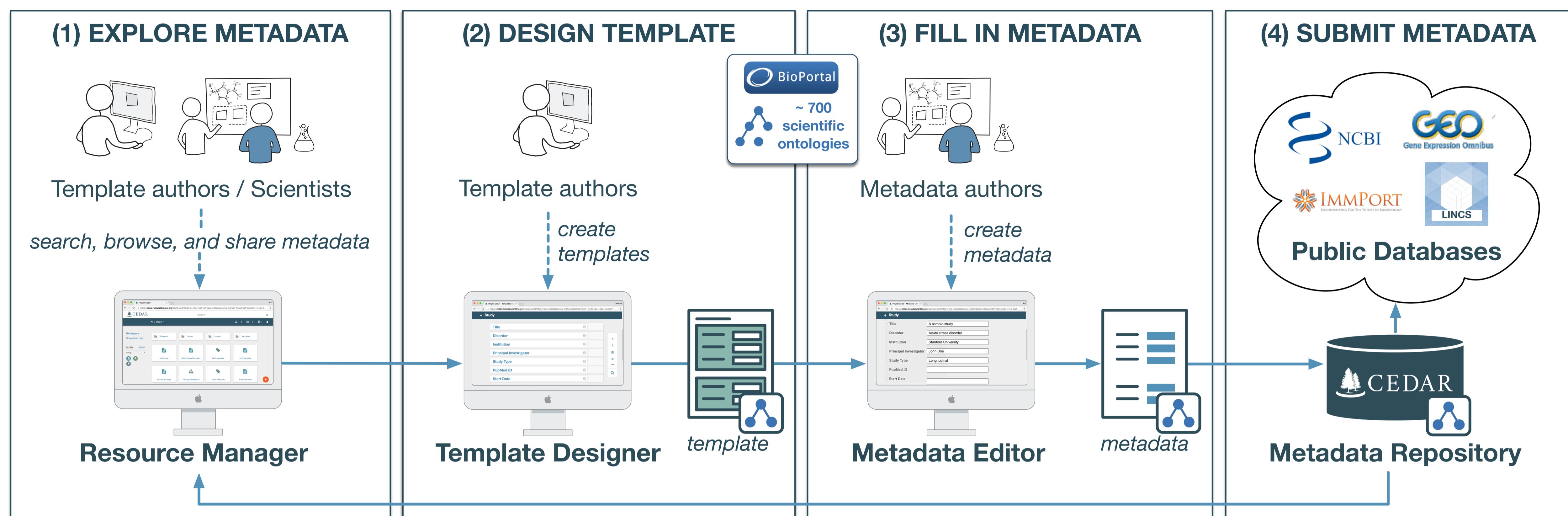
# CEDAR: Web-Based Tools for Accelerating the Creation of Standardized Metadata

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[cedar.metadatacenter.org](https://cedar.metadatacenter.org)

**CEDAR lets users create complete and comprehensive metadata for any scientific domain using standard ontologies and data structures.**



## WORKSPACE

**Folders**

CEDAR provides you a workspace to store your templates, elements and metadata. Organize your project into folders and manage your metadata over time..

**BioSample Templates**

**Share**

Collaborate with your team using groups. Share documents and folders in CEDAR with your team members. Publish your templates to the community by making them public.

Create a group  
My Team +

**BioPortal**

CEDAR is powered by BioPortal, the world's most comprehensive repository of biomedical and earth science ontologies, to provide controlled terms for metadata.

**Ontology: NCBITAXON**

- + Entity
- + Conceptual Entity
- + Physical Object
- + Substance
- + Anatomical Structure
- + Manufactured Object
- + Organism

## TEMPLATES

**Templates**

Building templates involves composing forms of fields, each with a name and description.

Enter Field Title  
Sample Name

Enter Field Description  
Enter the name of your sample.

Basic field types include short and long text, numbers, email, and more.

Date	-- Break
@ Email	Video
# Number	Image
Phone	Element

**Elements**

Elements are reusable groups of fields and other elements. Elements can be shared on CEDAR and nested to any level. Using elements enables templates to be composed of community-defined building blocks to meet common specifications or needs.

**Study**

- Principal Investigator
  - First Name
  - Last Name
  - Address +
- Publication
  - Title
  - Journal
  - Date

## METADATA

**Metadata**

CEDAR supports features that allow easy and rapid entry of metadata. Computer-assisted intelligent authoring provides suggestions for both fields and values.

**BioSample Human**

Tissue: brain  
Sex  
Isolate\*  
Age\*  
Biomaterial Provider\*  
Optional Attribute  
disease  
Value  
astrocytoma (DOID: 19%)  
Parkinson's disease (DOID: 19%)  
central nervous system lymphoma (DOID: 10%)  
oligodendroglioma (DOID: 9%)  
bipolar disorder (DOID: 9%)  
schizophrenia (DOID: 9%)  
neuroblastoma (DOID: 6%)

**JSON-LD**

Templates and metadata are represented as JSON-LD, a machine-readable and widely accepted interchange format on the Web.

```
organism": {
  "@type": "http://data.bioontology.org/ontologies/NCBITAXON/classes/http%3A%2F%2Fpurl.bioontology.org%2Fontology2FSTY%2FT001",
  "@id": "http://purl.obolibrary.org/NCBITAXON/9606"
}
```

## VALIDATE and PUBLISH

**Validation**

Automatic validation is done on the fly to give immediate feedback of errors. The validator framework wraps other existing validation services, e.g., the BioSample Validator.

⚠ **BioSample validation errors:**

- Empty attribute value for attribute 'tissue'.
- Sample has missing mandatory attribute(s). If you do not have information for the required field(s), please provide value as either 'not collected', 'not applicable' or 'missing'.

## REST APIs

Create, read, update and delete with CEDAR REST API microservices. Send metadata to your repository or app, or publish to CEDAR!

<b>DELETE</b>	/folders/{id}
<b>GET</b>	/folders/{id}
<b>GET</b>	/folders/{id}/details
<b>POST</b>	/folders

## Adoption and Evaluation

