

Cell Reprogramming Database (CReD) Portal with Globus

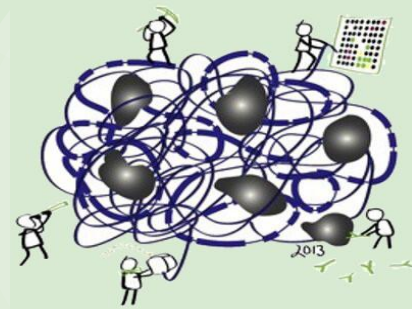
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Yeo Lab

FOCUS OF RESEARCH

- HOMEOSTASIS IN PLURIPOTENT STEM CELLS
- NEURAL RNA BINDING PROTEINS
- RNA PROCESSING
- SINGLE-CELL ANALYSES



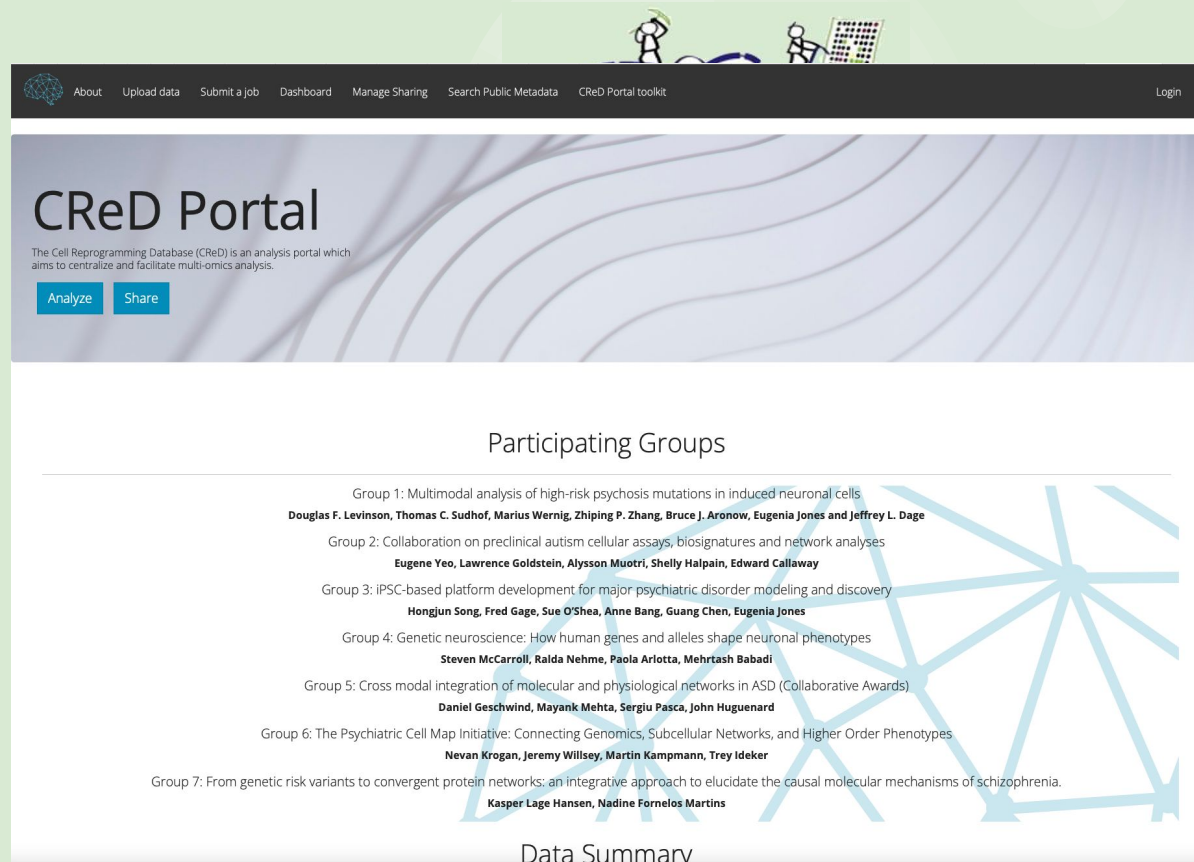
The Cell Reprogramming Database Portal (CReD)

Cloud-based application for:

- Data Sharing
- Data Harmonization
- Data Processing and Analysis

Across four domains:

1. scRNA-Seq (genomics)
2. Imaging
3. Electrophysiology
4. Proteomics



The screenshot shows the CReD Portal website. At the top, there is a navigation bar with links: About, Upload data, Submit a job, Dashboard, Manage Sharing, Search Public Metadata, CReD Portal toolkit, and a Login button. Below the navigation bar is a large banner with the text "CReD Portal" and a sub-header: "The Cell Reprogramming Database (CReD) is an analysis portal which aims to centralize and facilitate multi-omics analysis." There are two buttons, "Analyze" and "Share", below the banner. Below the banner is a section titled "Participating Groups" which lists seven research groups with their names and descriptions. At the bottom of the screenshot, the text "Data Summary" is visible.

Participating Groups

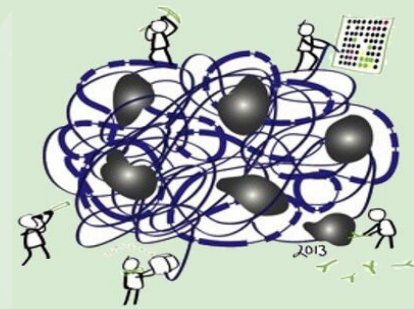
- Group 1: Multimodal analysis of high-risk psychosis mutations in induced neuronal cells
Douglas F. Levinson, Thomas C. Sudhof, Marius Wernig, Zhiping P. Zhang, Bruce J. Aronow, Eugenia Jones and Jeffrey L. Dage
- Group 2: Collaboration on preclinical autism cellular assays, biosignatures and network analyses
Eugene Yeo, Lawrence Goldstein, Alysson Muotri, Shelly Halpain, Edward Callaway
- Group 3: iPSC-based platform development for major psychiatric disorder modeling and discovery
Hongjun Song, Fred Gage, Sue O'Shea, Anne Bang, Guang Chen, Eugenia Jones
- Group 4: Genetic neuroscience: How human genes and alleles shape neuronal phenotypes
Steven McCarroll, Ralda Nehme, Paola Ariotta, Mehrtash Babadi
- Group 5: Cross modal integration of molecular and physiological networks in ASD (Collaborative Awards)
Daniel Geschwind, Mayank Mehta, Sergiu Pasca, John Huguenard
- Group 6: The Psychiatric Cell Map Initiative: Connecting Genomics, Subcellular Networks, and Higher Order Phenotypes
Nevan Krogan, Jeremy Willsey, Martin Kampmann, Trey Ideker
- Group 7: From genetic risk variants to convergent protein networks; an integrative approach to elucidate the causal molecular mechanisms of schizophrenia.
Kasper Lage Hansen, Nadine Formelos Martins

Data Summary

CReD and Globus

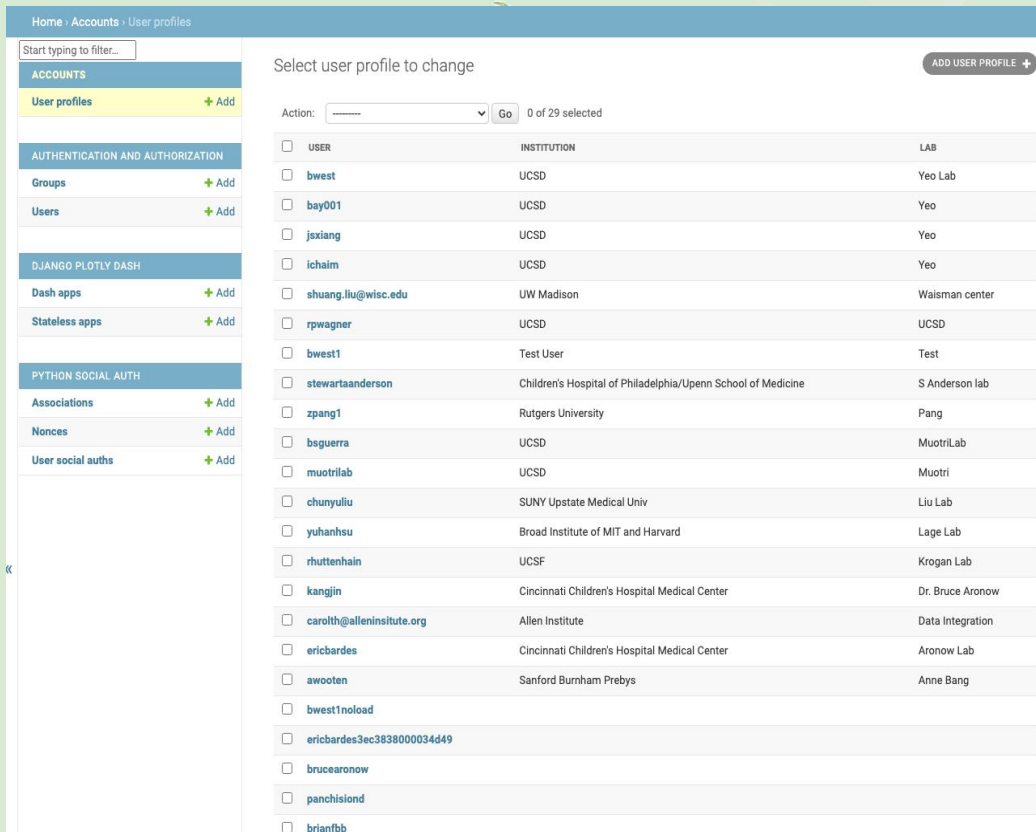
Elements of Globus

- AUTHENTICATION
 - INTEGRATED WITH DJANGO AUTH
 - SETUP UNIVERSAL STORAGE SERVICE (USS) FOR NEW USERS
- FILE TRANSFER/STREAMING
 - Fire and Forget
- SHARING
- JUPYTERHUB



CReD/Globus Auth

New users logging in through Globus Auth are registered in Django Auth



The screenshot displays the Django Admin interface for user profiles. The left sidebar contains navigation menus for ACCOUNTS, AUTHENTICATION AND AUTHORIZATION, DJANGO PLOTLY DASH, and PYTHON SOCIAL AUTH. The main content area shows a list of user profiles with columns for USER, INSTITUTION, and a third column (likely email or lab name). The interface includes a search bar, a filter dropdown, and a table of 29 users.

Home » Accounts » User profiles

Start typing to filter...

ACCOUNTS

- User profiles [+ Add](#)

AUTHENTICATION AND AUTHORIZATION

- Groups [+ Add](#)
- Users [+ Add](#)

DJANGO PLOTLY DASH

- Dash apps [+ Add](#)
- Stateless apps [+ Add](#)

PYTHON SOCIAL AUTH

- Associations [+ Add](#)
- Nonces [+ Add](#)
- User social auths [+ Add](#)

Select user profile to change [ADD USER PROFILE +](#)

Action: 0 of 29 selected

USER	INSTITUTION	
<input type="checkbox"/>	LAB	
<input type="checkbox"/>	bwest	UCSD
<input type="checkbox"/>	bay001	UCSD
<input type="checkbox"/>	jsxiang	UCSD
<input type="checkbox"/>	ichalm	UCSD
<input type="checkbox"/>	shuang.liu@wisc.edu	UW Madison
<input type="checkbox"/>	rpwagner	UCSD
<input type="checkbox"/>	bwest1	Test User
<input type="checkbox"/>	stewartanderson	Children's Hospital of Philadelphia/Upenn School of Medicine
<input type="checkbox"/>	z pang1	Rutgers University
<input type="checkbox"/>	bsguerra	UCSD
<input type="checkbox"/>	muotrilab	UCSD
<input type="checkbox"/>	chunyulu	SUNY Upstate Medical Univ
<input type="checkbox"/>	yuhanhsu	Broad Institute of MIT and Harvard
<input type="checkbox"/>	rhuttenhain	UCSF
<input type="checkbox"/>	kangjin	Cincinnati Children's Hospital Medical Center
<input type="checkbox"/>	carolth@alleninsitute.org	Allen Institute
<input type="checkbox"/>	ericbardes	Cincinnati Children's Hospital Medical Center
<input type="checkbox"/>	awooten	Sanford Burnham Prebys
<input type="checkbox"/>	bwest1noload	
<input type="checkbox"/>	ericbardes3ec3838000034d49	
<input type="checkbox"/>	brucearonow	
<input type="checkbox"/>	panchisiond	
<input type="checkbox"/>	brianfbb	

CReD/Globus File Streaming



Standard Dir Structure is created for new Users

Files are uploaded into the raw_files and notes directory by the user

Files are uploaded to the json_files and results directory by the system

File Manager

Collection: CReD Portal Collection

Path: /~/bwest/

select all [up one folder](#) [refresh list](#) [view](#)

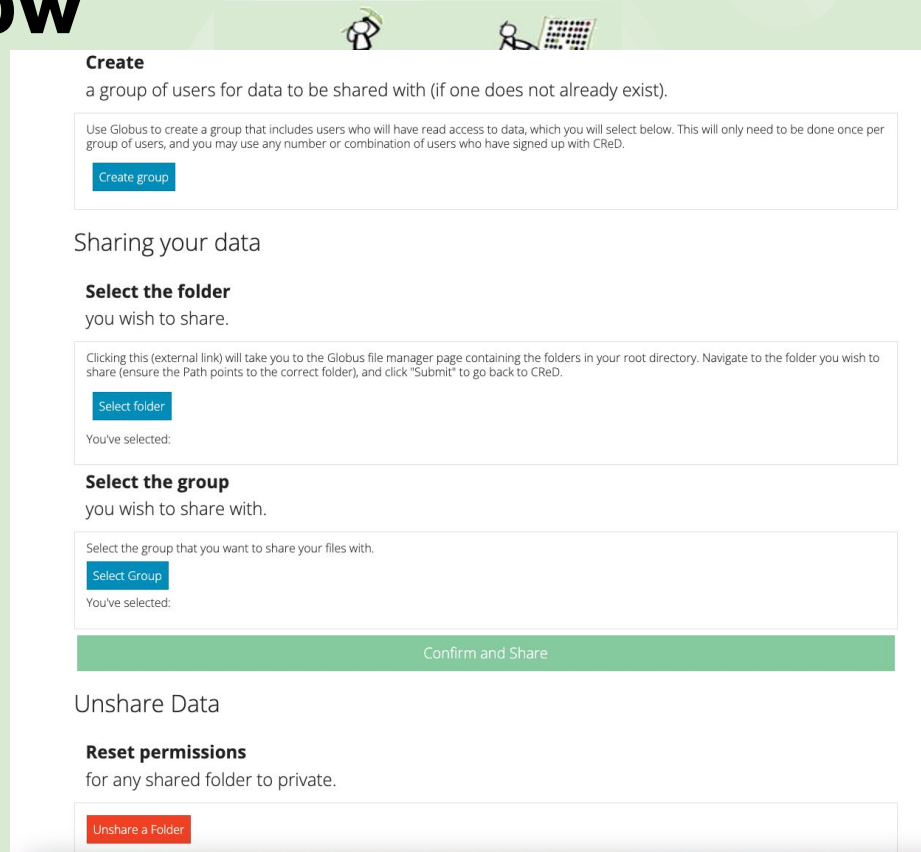
NAME	LAST MODIFIED	SIZE
json_files	2/24/2022, 12:57 ...	-
notes	11/4/2021, 11:32 ...	-
raw_files	11/16/2021, 10:45 ...	-
results	11/4/2021, 11:32 ...	-

Navigation sidebar: FILE MANAGER, BOOKMARKS, ACTIVITY, COLLECTIONS, GROUPS, CONSOLE, FLOWS, ACCOUNT, LOGOUT, HELP

Notification: Globus services will be unavailable for up to 1 hour beginning at 9:00 AM US Central on Saturday, June 18, 2022. [Read more about t](#)

CReD/Sharing Workflow

- Create Group (opt)
- Select the Folder
- Select the Group
- Remove Permissions (opt)



The image shows a screenshot of the CReD/Sharing Workflow interface. At the top, there are two icons: a person with a lightbulb and a person with a laptop. The interface is divided into several sections:

- Create**: A group of users for data to be shared with (if one does not already exist).
Use Globus to create a group that includes users who will have read access to data, which you will select below. This will only need to be done once per group of users, and you may use any number or combination of users who have signed up with CReD.
[Create group](#)
- Sharing your data**
 - Select the folder**
you wish to share.
Clicking this (external link) will take you to the Globus file manager page containing the folders in your root directory. Navigate to the folder you wish to share (ensure the Path points to the correct folder), and click "Submit" to go back to CReD.
[Select folder](#)
You've selected:
 - Select the group**
you wish to share with.
Select the group that you want to share your files with.
[Select Group](#)
You've selected:
- [Confirm and Share](#)
- Unshare Data**
 - Reset permissions**
for any shared folder to private.
[Unshare a Folder](#)