

Three years later: the NF Data Portal in 2021

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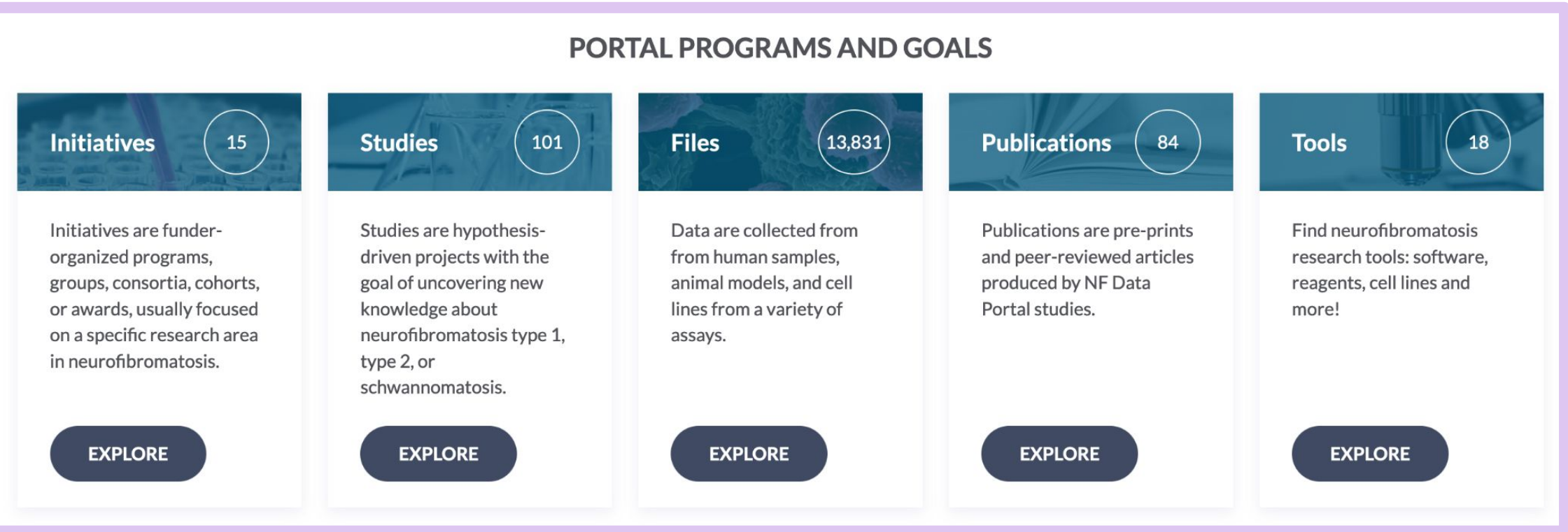
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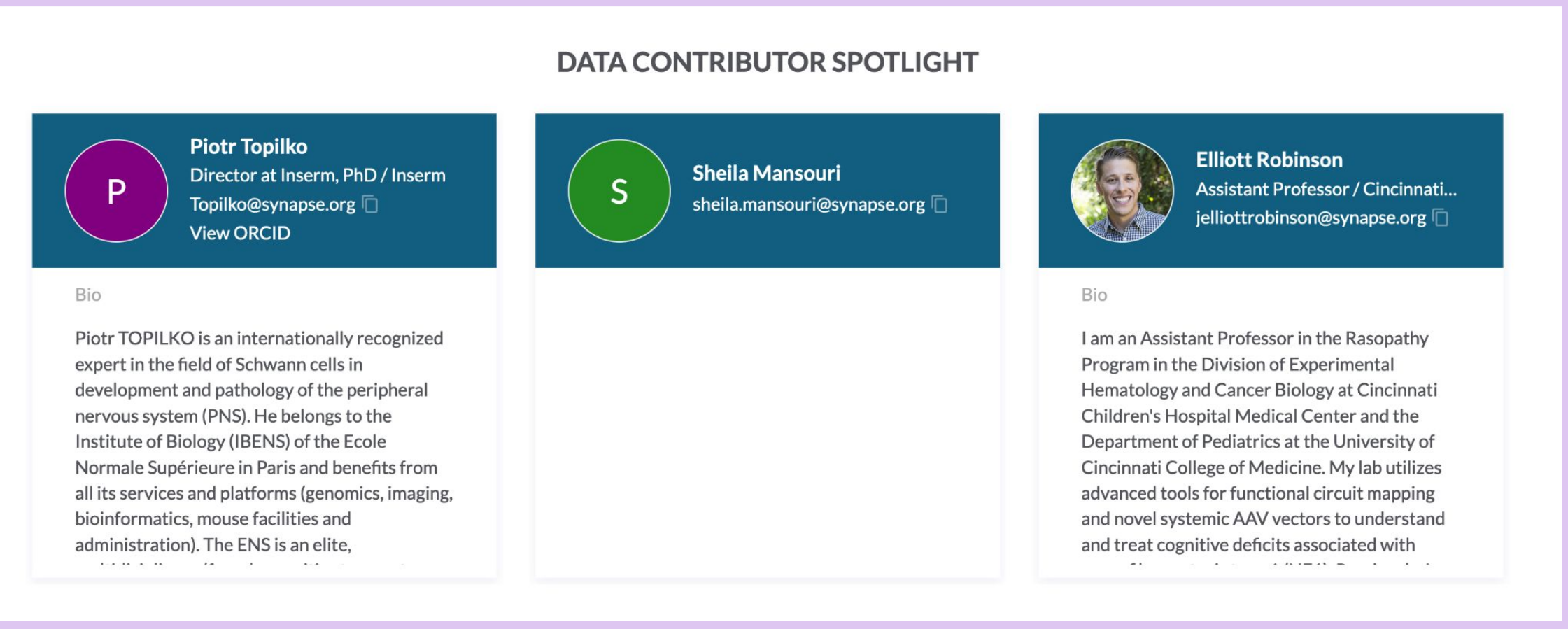
Highlights

- We originally launched nfdataportal.org in 2018, and have continued to develop and improve the platform
- The portal has helped support data reuse and new projects in the NF research community
- We have developed new features to help users better understand what is in the portal, and better explore NF studies and data

A



B



C



Figure 1. A selection of new NF Portal features. (A) The portal programs and goals module shows live counts of the types of portal content - Initiatives, Studies, Files, Publications, and Tools. It also provides short descriptions of each of these categories of content. (B) The Data Contributor Spotlight highlights Synapse accounts that have uploaded data to an NF Portal Study, and provides some information about each contributor using the information they've provided in their profile. (C) The NF Grant Opportunities lists open grant opportunities relevant to NF from our funding partners. (D) The Explore module has clickable pie-charts that allow people to easily figure out what types of content exist in the portal, and filter for what they are looking for. (E) The new Study Details pages summarize important metadata and data for each of the >100 NF Data Portal studies.

Introduction

- The NF Open Science Initiative (NF-OSI) was created to promote data sharing and open science practices as core values
- The NF Data Portal (www.nfdataportal.org) was originally released in 2018
- Goal: help the community share and discover data from projects funded by CTF, NTAP, GFF, and other funders.¹
- The portal has grown substantially, and now lists 110 funded studies from 14 funding mechanisms and six funding organizations, with data contributions from more than 100 researchers.
- NF Data Portal has been a key enabler of data-driven research events such as the 2019 and 2020 NF Hackathons and a planned DREAM Challenge
- Portal features, documentation, and connected tools have been substantially developed and refined; here, we describe the major updates

New Homepage Features

- “Portal Programs and Goals” (Figure 1A) shows a live count of the:
 - Initiatives (funding mechanisms and consortia)
 - Studies (individual research projects)
 - Files (the data)
 - Publications (publications from the portal Studies)
 - Tools (experimental and computational tools)
- New Studies shows the three most recent studies to have been listed on the portal
- The Data Contributor Spotlight (Figure 1B) highlights NF Data Portal contributors and their profiles
- The Grant Opportunities module (Figure 1C) lists open grant opportunities from our funding partners
- A newsfeed highlights our blog with NF-relevant open science news stories

Documentation Site

- We've created a portal documentation site (help.nf.synapse.org or click on the “Help” menu at the NF Data Portal)
- This site features articles that describe:
 - The data contribution process
 - How to upload data
 - How to annotate data
 - FAQs and more!

Finding Data

- The data portal has new tools for finding data, studies, and other portal content
- Our “Explore” module (Figure 1D) features interactive and clickable pie charts that lets users filter studies, data, and other content to discover data that meets their criteria
- New icons (Figure 2) show a high-level summary of the types of data available in a particular study
- Study Detail Pages (Figure 1E) highlight data availability, access requirements, acknowledgement statements, study publications, tools generated by the study, data uploaded, and related studies based on clustering of the summary text.

Future Directions

- Current documentation is contribution-centric; add additional documentation to help people learn more about using the portal
- Continue developing new “hackathon projects” module to list future hackathon projects
- Continue adding to the standardized [NF-OSI metadata dictionary](https://nf-osi.github.io/metadata-dictionary/) (see a missing term? Let us know!)
- Coordinating a community Request for Comments to better understand what types of data must be shared
- Continue to add data shared by the community (*maybe yours?*)

References

Allaway RJ, La Rosa S, Verma S, et al. Engaging a community to enable disease-centric data sharing with the NF Data Portal. *Scientific Data*. 2019 Dec;6(1):319. DOI: 10.1038/s41597-019-0317-x.

Acknowledgements

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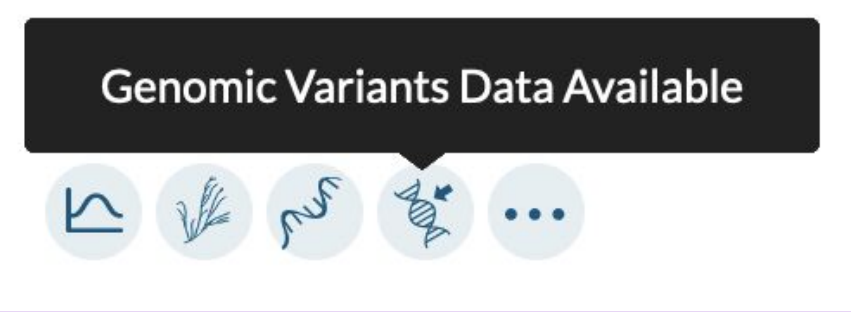


Figure 2. Study data icons.