hubmap-link

Visualizing Sample and Ontology linkages between **HuBMAP** and **SPARC**

Motivation

HuBMAP and SPARC have a rich reference system, both ontologically and spatially, tied to massive amounts of tissue sample data. Both systems are growing organically and are in danger of being incompatible. To enable future cross-pollination and compatibility, we have implemented a system to assist with mapping and visualization of the overlaps between the systems.

Ontologies (and Related Technologies)

SPARC

- SciCrunch
- UBERON
- Cell Ontology (CL)

HuBMAP

- CCF ASCT+B Tables
- UBERON
- Cell Ontology (CL)
- FMA

Spatial Reference Systems

SPARC (Human subset)

- Flatmaps
- Scaffolds

HuBMAP

- CCF Ontology - SRS
- CCF Reference Organs

Spatially Resolved Data

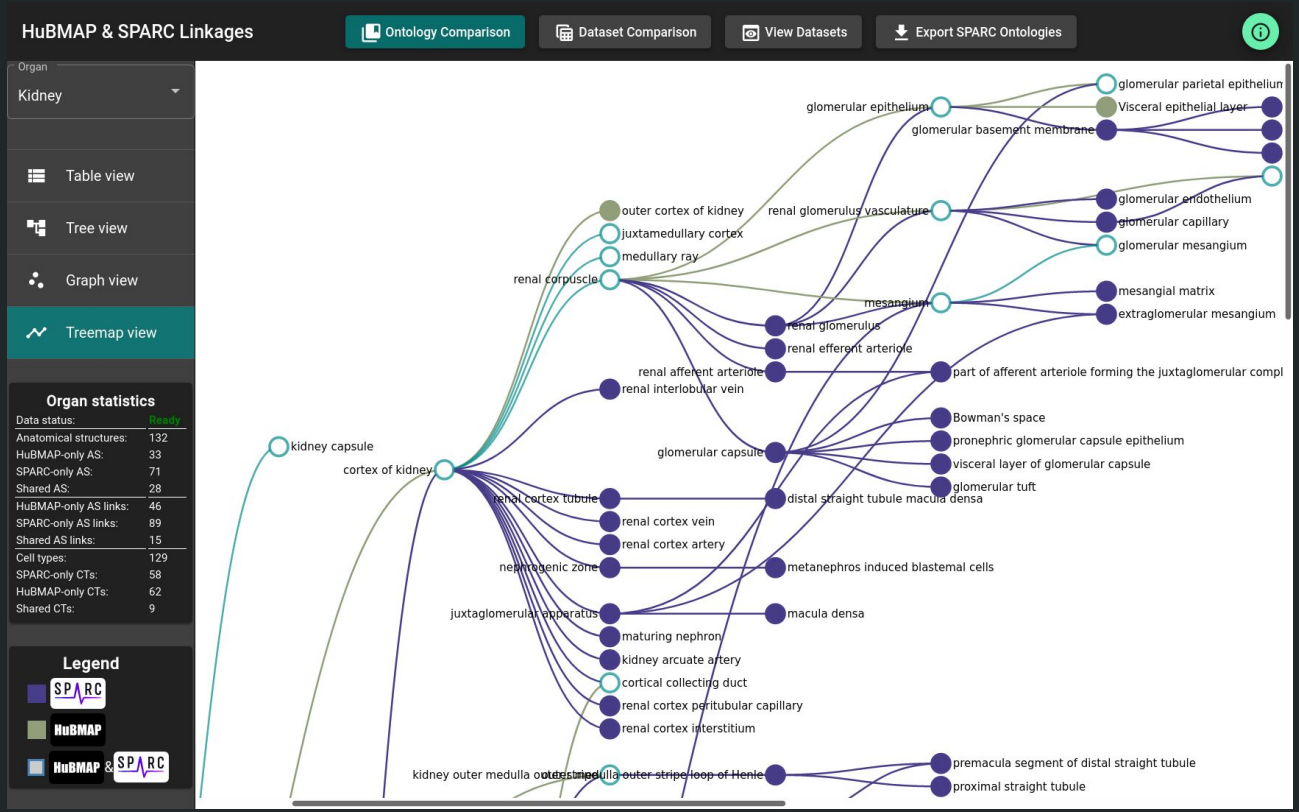
SPARC (Human subset)

- Elasticsearch API

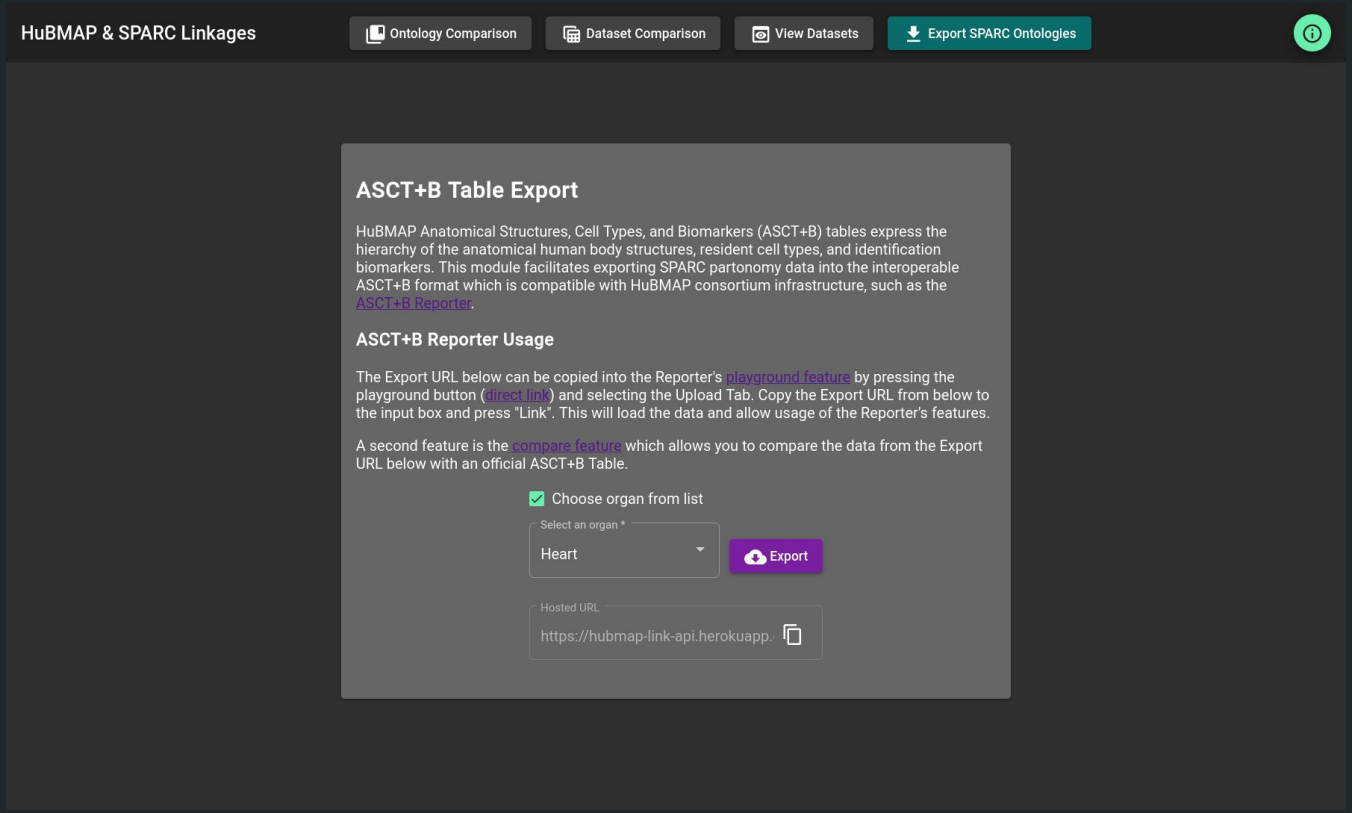
HuBMAP

- Elasticsearch API

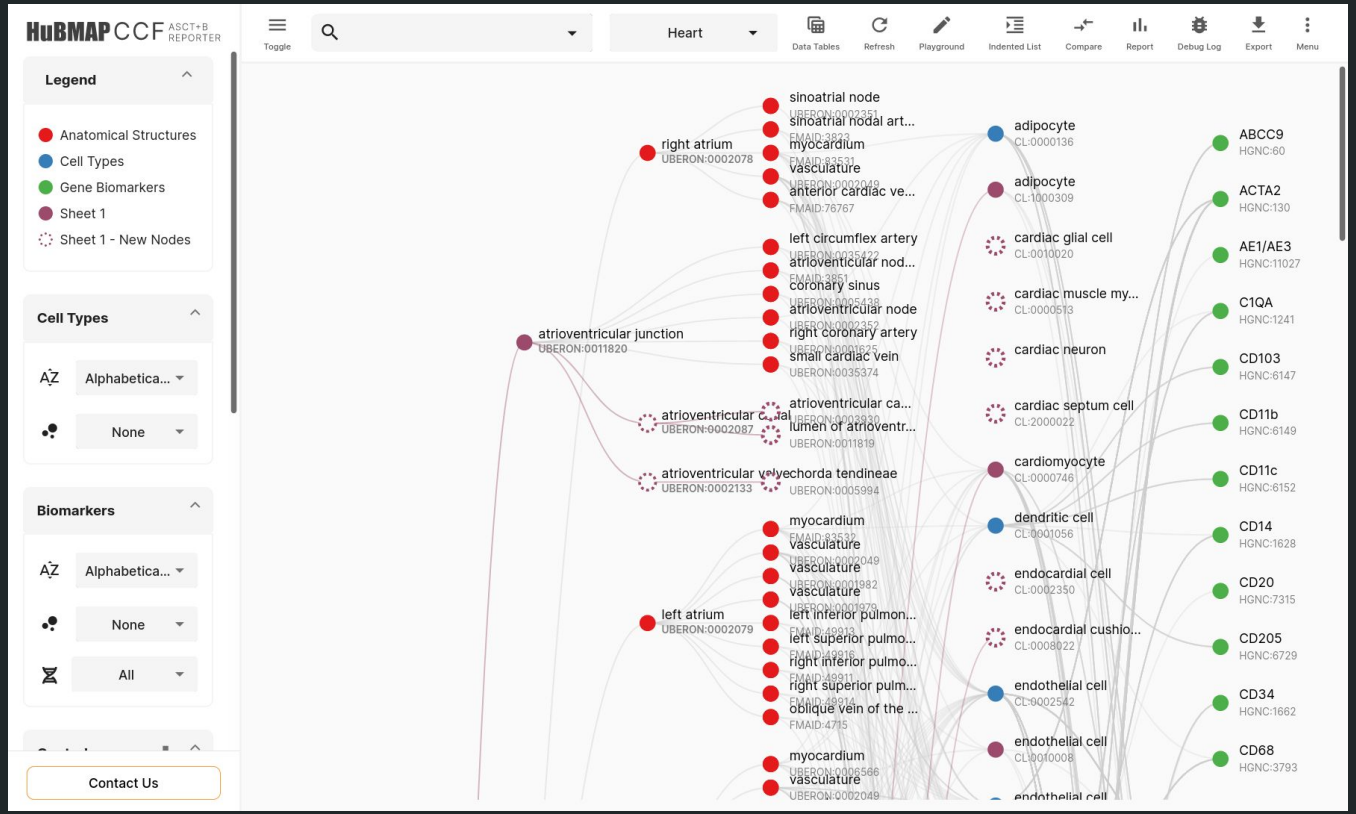
Ontology Comparison



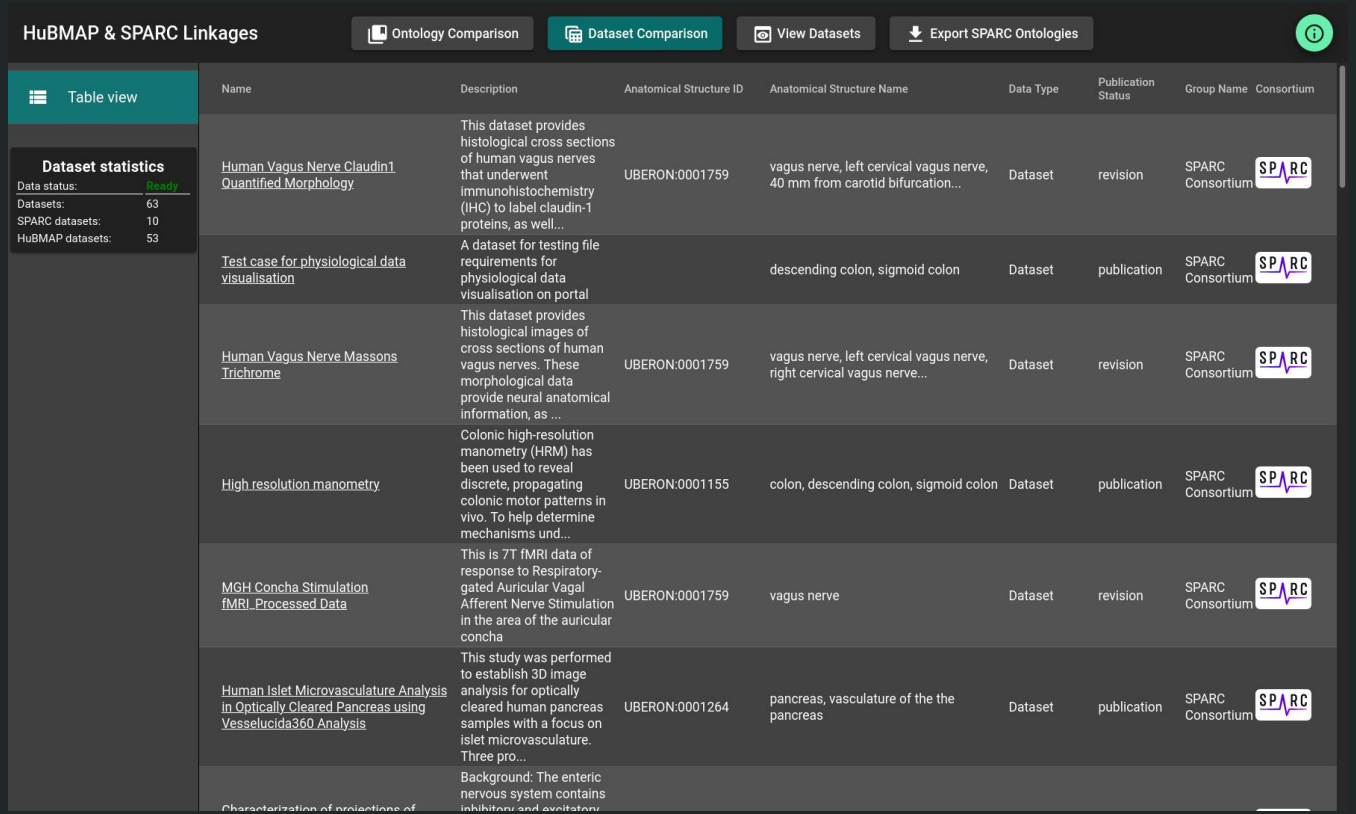
Ontology Comparison via ASCT+B Reporter



Ontology Comparison via ASCT+B Reporter

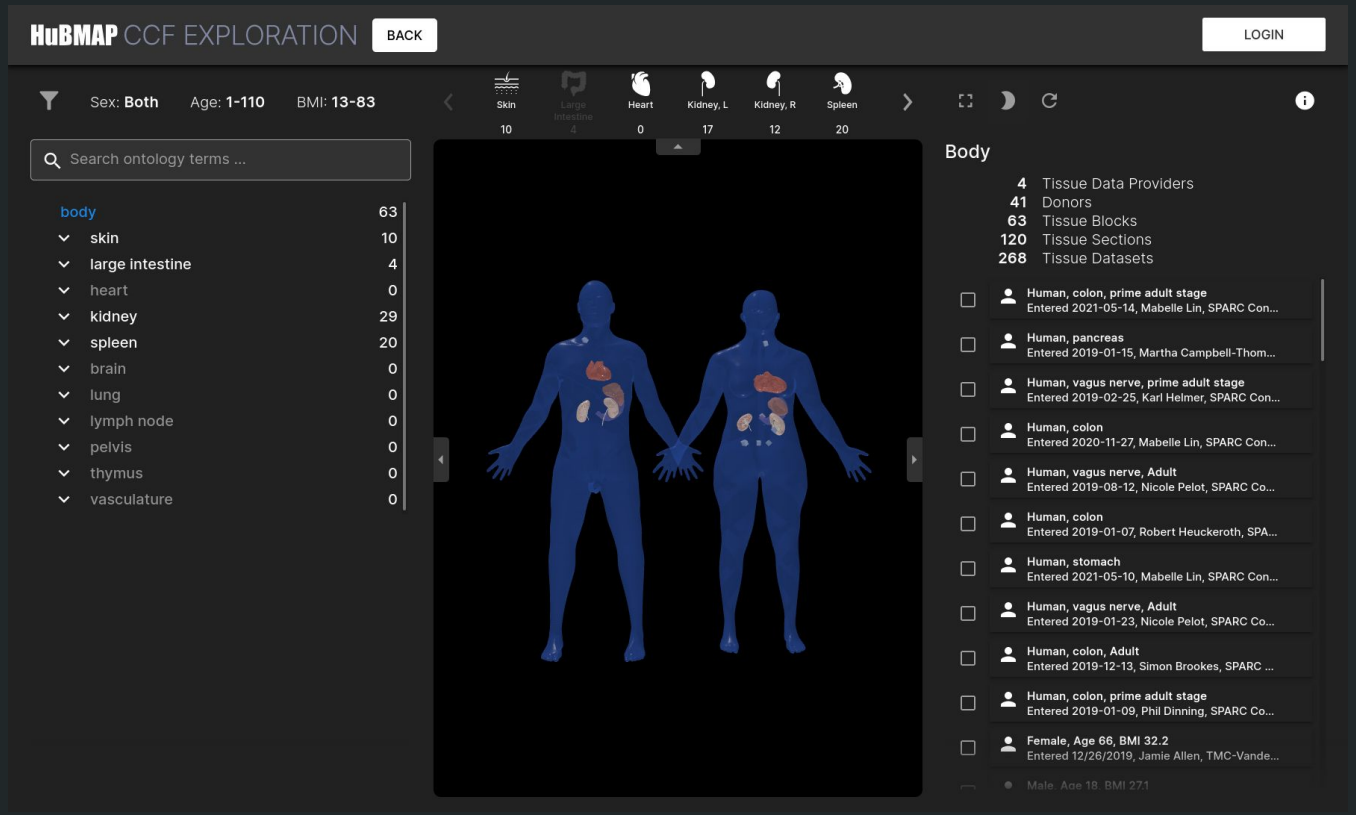


Dataset Comparison

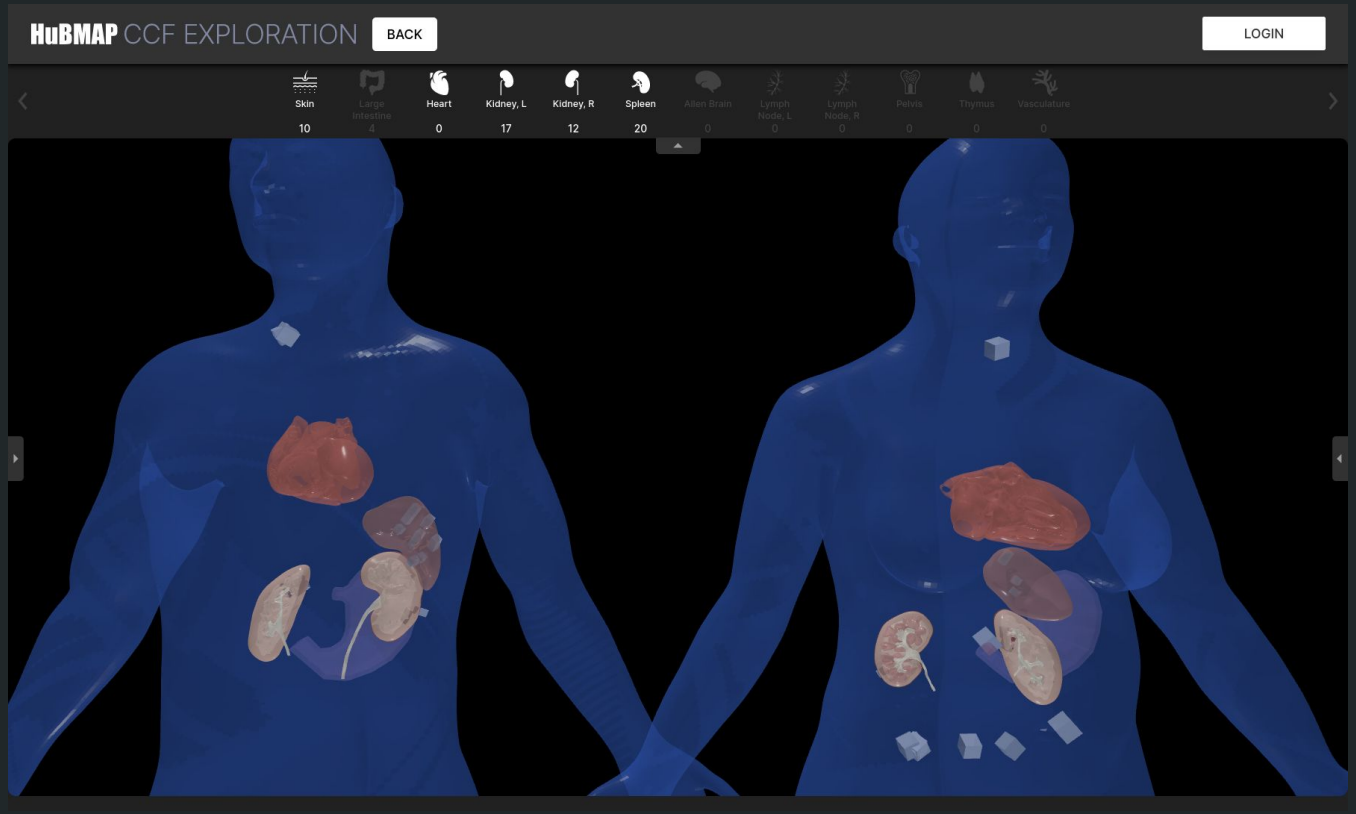


Name	Description	Anatomical Structure ID	Anatomical Structure Name	Data Type	Publication Status	Group Name	Consortium
Human Vagus Nerve Claudin1 Quantified Morphology	This dataset provides histological cross sections of human vagus nerves that underwent immunohistochemistry (IHC) to label claudin-1 proteins, as well...	UBERON:0001759	vagus nerve, left cervical vagus nerve, 40 mm from carotid bifurcation...	Dataset	revision	SPARC Consortium	SPARC
Test case for physiological data visualisation	A dataset for testing file requirements for physiological data visualisation on portal		descending colon, sigmoid colon	Dataset	publication	SPARC Consortium	SPARC
Human Vagus Nerve Massons Trichrome	This dataset provides histological images of cross sections of human vagus nerves. These morphological data provide neural anatomical information, as ...	UBERON:0001759	vagus nerve, left cervical vagus nerve, right cervical vagus nerve...	Dataset	revision	SPARC Consortium	SPARC
High resolution manometry	Colonic high-resolution manometry (HRM) has been used to reveal discrete, propagating colonic motor patterns in vivo. To help determine mechanisms und...	UBERON:0001155	colon, descending colon, sigmoid colon	Dataset	publication	SPARC Consortium	SPARC
MGH Concha Stimulation fMRI_Processed Data	This is 7T fMRI data of response to Respiratory-gated Auricular Vagal Afferent Nerve Stimulation in the area of the auricular concha	UBERON:0001759	vagus nerve	Dataset	revision	SPARC Consortium	SPARC
Human Islet Microvasculature Analysis in Optically Cleared Pancreas using Vesselucida360 Analysis	This study was performed to establish 3D image analysis for optically cleared human pancreas samples with a focus on islet microvasculature. Three pro...	UBERON:0001264	pancreas, vasculature of the the pancreas	Dataset	publication	SPARC Consortium	SPARC
Characterization of projections of	Background: The enteric nervous system contains inhibitory and excitatory						

3D Dataset Comparison via CCF EUI



3D Dataset Comparison via CCF EUI



Visit the site at: https://git.io/hubmap-link