## **VIVO APIs**

The VIVO APIs are HTTP end-points that can be used to read or write data, or to manage VIVO's operation. They have no user interface, and are intended to be called by external applications that are cooperating with VIVO.

The end-points include:

Public Services	<ul> <li>available without restriction</li> <li>provide filtered results, allowing restrictions on data</li> </ul>
Linked Open Data	Information about an individual, its types, its data values, incoming and outgoing links.
ListRDF	Lists of individuals that belong to a particular class in the ontology. For example, a list of all People, or all Organizations.

Access Controlled Services	<ul> <li>require account credentials on each request</li> <li>credentials are for an internal VIVO with sufficient authorization</li> <li>results are not filtered, and may return data that should be kept private</li> </ul>
SPARQL Query API	Submit a SPARQL query to get information from VIVO. Supports SELECT, ASK, CONSTRUCT, and DESCRIBE query types.
SPARQL Update API	Submit a SPARQL query to INSERT new triples or DELETE existing triples. Also, LOAD triples from a web-accessible file.
Search Indexing API	Submit a list of URIs that may have stale data in the search index. The search data for each of these URIs will be rebuilt.