The Leigh Map

Leigh Map (https://vmh.uni.lu/#leighmap or https://www.vmh.life/#leighmap) is a novel gene-to-phenotype interaction network which can be used as a diagnostic resource for Leigh syndrome (IEMBASE000422; MIM 256000), one of the most frequently observed mitochondrial disorders. The user interface of Leigh Map is similar to Google Maps, whereby the user can zoom in to view increasingly detailed components and query elements of the map.

In Leigh Map, causative Leigh syndrome genes are arranged according to mitochondrial location and function. Zooming in will reveal icons for genes in their individual compartments.
Clicking on a gene icon will display inheritance information, patient demographics, and links to external databases. Clicking on a submap associated with a gene will display all HPO phenotypes associated with that particular gene defect.
Genes and phenotypes can be queried using the search function. Querying a gene will display genetic information and links to submaps as above. Querying phenotypes will display all gene defects which are associated with the phenotype(s) in question. Multiple phenotypes can be queried by separating with a semicolon. Clicking on a subplot in a phenotype query will visualise the query results.