How is Data Organized in the LIMS?

The LIMS system utilizes several data model constructs in order to store data uploaded from the ELN or uploaded to the LIMS directly. All data models ultimately connect to the Experiment data model. Experiment data objects are created and updated for each unique ELN page. These Experiment data objects provide the tracking for any and all protocols, characterization data, and chemical synthesis linked via annotation in any ELN page to the LIMS itself. There are currently over two dozen different data models in the LIMS. A simplified schematic showing how these models relate to each other is shown in Fig 1.

Fig 1. Schematic illustrating some of the connections between data models.

Instrument-specific Data Models in LIMS

Select BioPACIFIC MIP instruments are configured to automatically push data to instrument-specific data models in the LIMS. These instruments, such as the Symphony Peptide Synthesizer and Small Angle X-ray Scattering (SAXS) system, push their data to the LIMS automatically when new data is generated. This data is then parsed by the LIMS and their values are stored in distinct data models in the LIMS database. This provides for simple, rapid, and searchable access to data from these instruments. Furthermore, the data can be readily associated with a user's ELN page(s) via simple point-and-click interfaces in the ELN's **instrument annotation modules**.