Life science research using neutrons at the European Spallation Source: applications, instruments, and support labs

Zoë Fisher

Scientific Activities Division, European Spallation Source ERIC, P.O. Box 176, 22100 Lund, Sweden.

The European Spallation Source (ESS) is a partnership of European Nations collectively building and operating the world's leading user facility for research using neutrons. The ESS will provide unique possibilities for life science research due to high flux, specialized instruments, and support labs for sample preparation and characterization. This will enable faster measurements on smaller samples and will support researchers from medicine, drug discovery, agriculture, and general biological sciences to effectively use the ESS. The suite of neutron instruments includes reflectometry, small angle scattering, spectroscopy, and protein crystallography. This talk will provide an overview of the various fields where ESS will make an impact and include a summary of the relevant neutron beamlines and support laboratories constructed on site.