Structural Biology Theme

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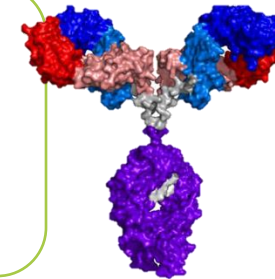
Structural Biology Theme
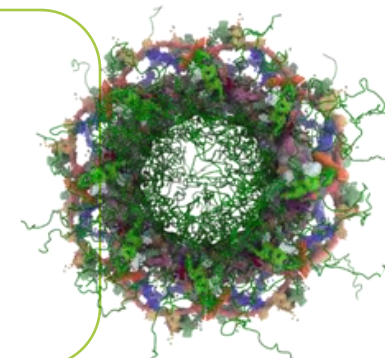

Integrated Infrastructure
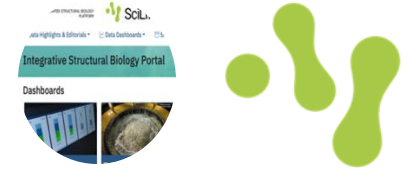
Pilot projects

Emerging science cases

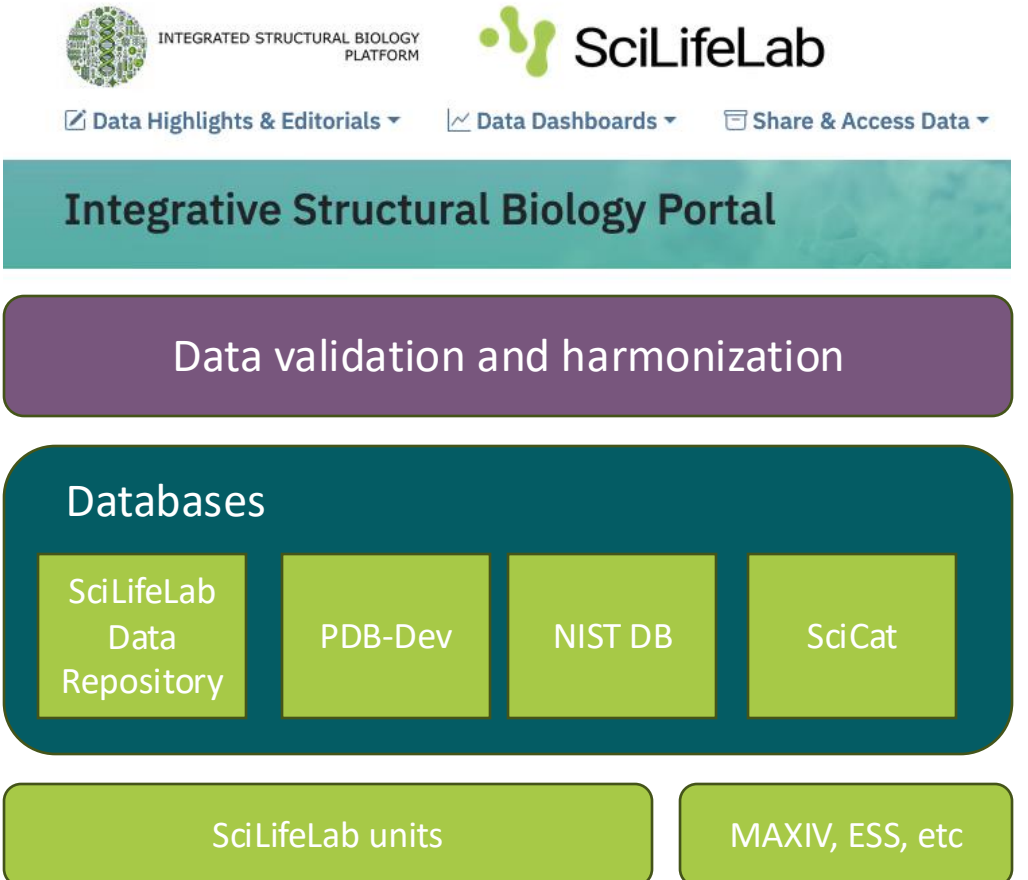# Integrated infrastructure

Cross-platform data harmonization

Biological Mass Spectrometry	Lund Bioimaging Centre
Chemical Biology Consortium Sweden	Lund Protein Production Platform
Cryo-Electron Microscopy	Structural Proteomics
Display and Selection Technologies	National Bioinformatics Infrastructure Sweden

+External: e.g. ISB, LU-Fold, FragMax, MAXIV, ESS, EMBL

Synergies:

LINXS HALRIC InfraLife

Community Portal

INTEGRATED STRUCTURAL BIOLOGY PLATFORM SciLifeLab

Data Highlights & Editorials ▾   Data Dashboards ▾   Share & Access Data ▾

Integrative Structural Biology Portal

Data validation and harmonization

Databases

| SciLifeLab Data Repository | PDB-Dev | NIST DB | SciCat |

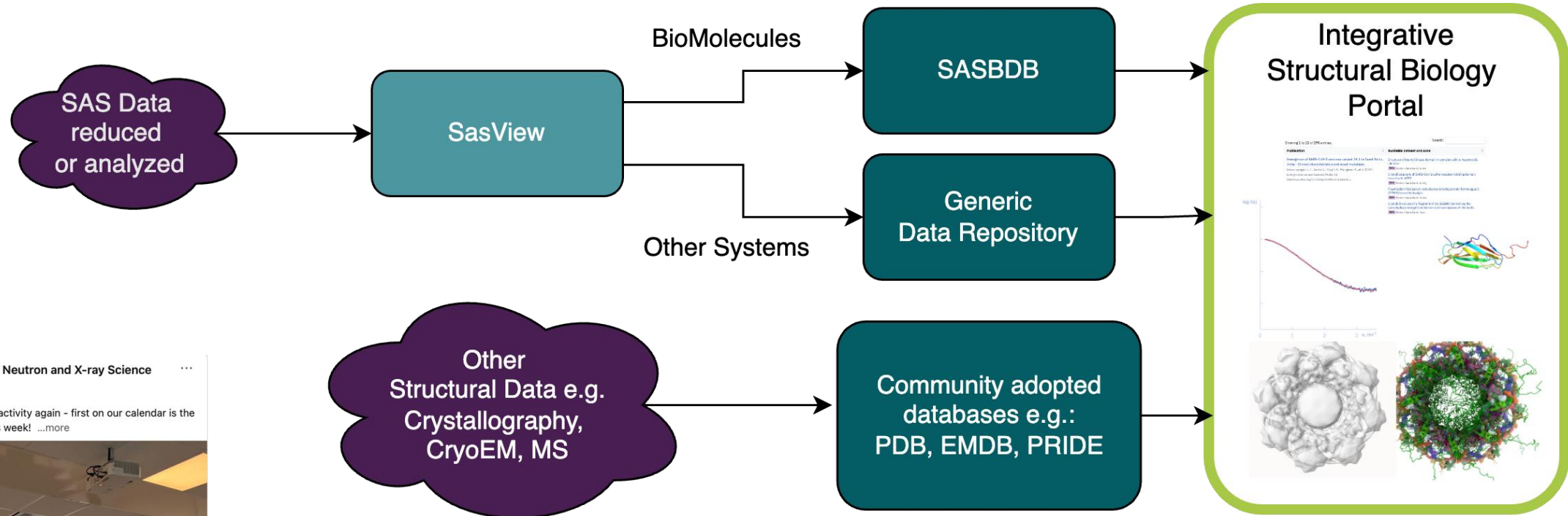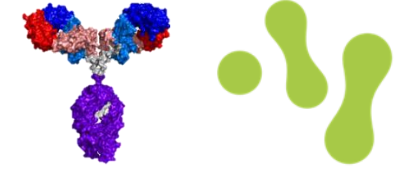| SciLifeLab units | MAXIV, ESS, etc |

Example: Small Angle Scattering data

SasView Contributor Camp, Jan 7-11, 2025

Pilot projects

- Model systems

- Use data for computational method development
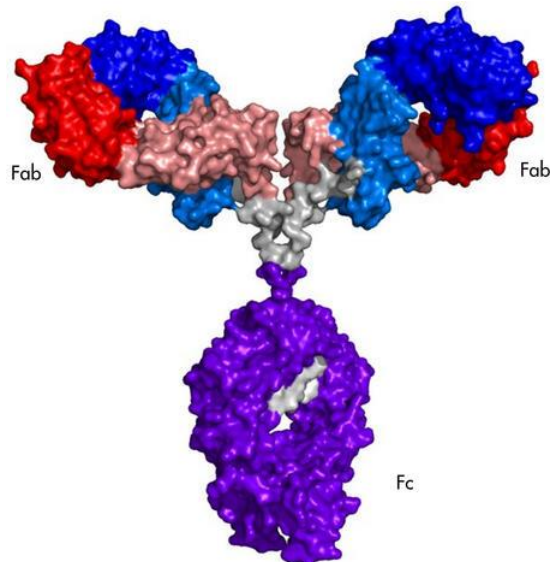
- Recommendation system/chat-bot

Synergies:

New Group Leaders
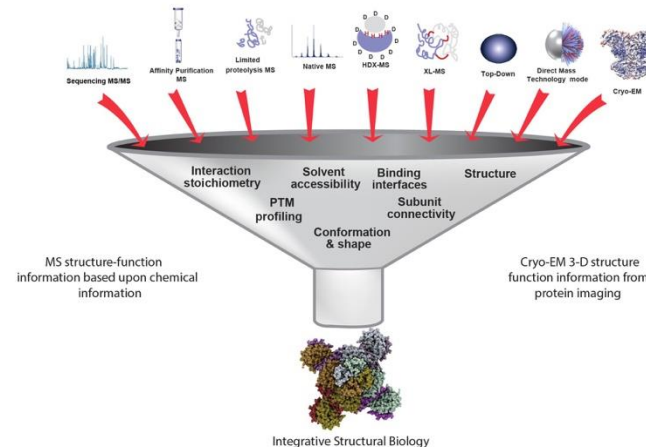
Training at SciLifeLab

SciLifeLab is at the forefront of technology- and data-driven knowledge and offers training for current and potential SciLifeLab infrastructure users, such as PhD students, postdocs, investigators and other employees within all Swedish universities.

Find And Book An Upcoming Course →

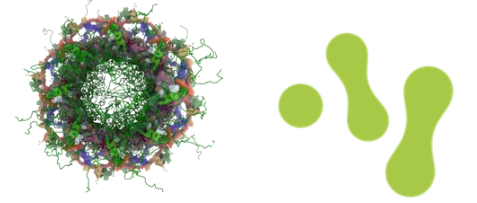Explore The Training Portal →

NISTmAb monoclonal antibody (LINXS)

Multimodal analysis

www.thermofisher.com

Hej chat, I've collected X data with CryoEM. What method should I use to study dynamics?

Emerging science cases

- Community-driven, more challenging systems
- Exploiting full cross-platform potential
- Computational methods compensate for low structural information

- Synergies:

Alpha Cell

Event call 2025

2-day workshop in Lund, late summer 2025

Main objectives

• Bring together key stakeholders from experimental and computational platforms.

• Define the technical and scientific requirements for the ISB Portal

• Engage with experts in multimodal data analysis

• Discuss pilot projects and emerging science cases

Tentative agenda

• Day 1
  • Keynotes
  • Cross-Platform Integration
  • ISB portal presentation
• Day 2
  • Multimodal Data Analysis
  • Case studies in ISB
  • Roadmap for future developments and collaborations

Organizers:

SciLifeLab Lund and ISB platform