

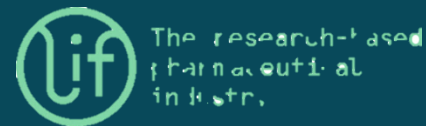
InfraLife

”An initiative to maximize benefits of Sweden’s large-scale research infrastructures; ESS, MAX IV and SciLifeLab”

Organizers



Partners



Funded by



Setting the scene: How InfraLife began..

July



NLS days 2019



Aug 2020



InfraLife



Project Plan - Infra Access for Life Science Sweden - InfraLife

PURPOSE AND AIMS
Sweden has made significant strategic investments into the national large-scale research infrastructures SOL, MAX IV and ESS and towards the European Spallation Source, ESS. Currently under construction in Lund, these major resources are actively used by the industrial and public life science research community, but still offer opportunities to explore synergies across the 3rd resources, share best practices in managing user projects and data, also for applications in business and innovation. There is a great potential to explore synergies across life science infrastructures in Sweden, health care, biotechnology, biomedicine, agriculture, environment and many other fields. This will be fundamental to help Sweden become a life science superpower, which has a strong potential to lead in the world.

HERE WE PROPOSE TO CREATE A JOINT LIFE SCIENCE HUB BETWEEN SOL/LAB, MAX IV AND ESS - THE INFRA LIFE HUB - THAT WILL ORCHESTRATE AND INTEGRATE THE INFRASTRUCTURES, CREATING A COMMON VISION, A COMMON GOAL AND A COMMON STRATEGY. THE INFRA LIFE HUB WILL PROVIDE DEDICATED RESOURCES TO FACILITATE ACCESS TO THE INFRASTRUCTURES, PROVIDE RAYING AND MONITORING KNOWLEDGE REGARDING THE INFRASTRUCTURES AND SERVICES OFFERED BY THE INFRASTRUCTURES, AS WELL AS RAYING KNOWLEDGE REGARDING THE INFRASTRUCTURES AND SERVICES OFFERED BY THE INFRASTRUCTURES, AS WELL AS RAYING KNOWLEDGE REGARDING THE INFRASTRUCTURES AND SERVICES OFFERED BY THE INFRASTRUCTURES, AS WELL AS RAYING KNOWLEDGE REGARDING THE INFRASTRUCTURES AND SERVICES OFFERED BY THE INFRASTRUCTURES.

INDUSTRIAL VIEW
The proposed InfraLife Hub will provide dedicated resources to facilitate access to the infrastructures, provide raying and monitoring knowledge regarding the infrastructures and services offered by the infrastructures, as well as raying knowledge regarding the infrastructures and services offered by the infrastructures, as well as raying knowledge regarding the infrastructures and services offered by the infrastructures.

Fig 1 Schematic overview of the InfraLife Hub
The InfraLife Hub is the central node in the national infrastructure network, connecting the infrastructures and the user community. The InfraLife Hub will provide dedicated resources to facilitate access to the infrastructures, provide raying and monitoring knowledge regarding the infrastructures and services offered by the infrastructures, as well as raying knowledge regarding the infrastructures and services offered by the infrastructures.

Lars H...
Science

Ett STORT tack till alla som varit med och gjort InfraLife till en framgångsrik historia. Tack till alla som varit med och gjort InfraLife till en framgångsrik historia.

#lifelife

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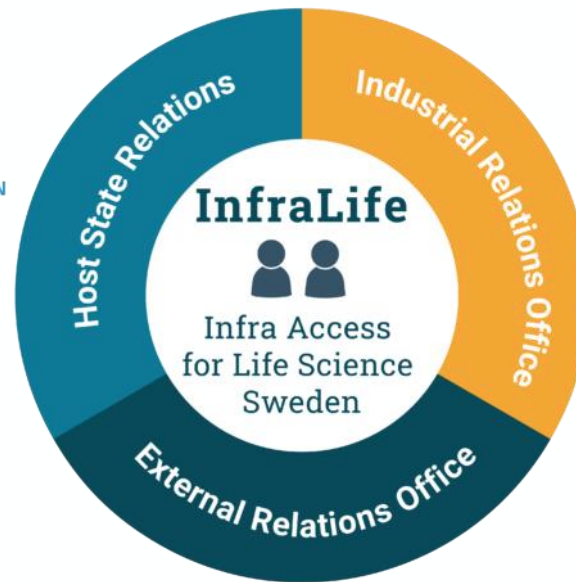
Head

Tack för ett jättebra samarbete och för fortsatt bra samarbete och för ett nytt år.

2021: set up and start

Spring 2021:

- First workshop with members and stakeholders to define needs.
- Recruitment of 2 coordinators.
- Communication package, web-page, logo, LinkedIn.



2021-2022: Getting to know each other & visiting the other infrastructures



4 years, how did we work together?

- Weekly/biweekly project group meetings online
- 2 dedicated full time coordinators
- Strategy Days
- Quarterly steering group meetings
- Quarterly communication council meetings
- Shared Teams channel & documents
- Agile activity list



Josefin



Claire



Cat



Elin

Communication & Outreach

InfraLife communication “council”

Connecting the ones responsible for communication at the infrastructures.

Communication package:

- InfraLife graphic profile & logo
- InfraLife webpage: www.infralife.se
- InfraLife LinkedIn (1200 followers)
- Flyers, stickers, posters

Posters and presentations at different events:

- SciLifeLab Site Days
- PLP Retreat
- PB conference
- MAX IV User Meeting



InfraLife

InfraLife Colors



Midpoint of ESS blue and SciLifeLab teal

Midpoint of blue in 40 % darker tint

MAX IV orange



Connecting infrastructure staff

- “Exchange dialogue” connecting technology experts
- Visits to respective infrastructures
- ESS/MAX IV/SciLifeLab-summit
- Leadership dialogues
- Feasibility and collaborations call



Course, integrated structural biology 2022, 2024



- Collaborative effort between the three infrastructures and others as well
- Connecting infrastructure expert teachers to create the course
- 20+ Students from all over the world
- Two week course at multiple locations where research infrastructures exist
- Sponsored by companies
- Site visits, practical, lectures, networking, poster sessions



ProLinC

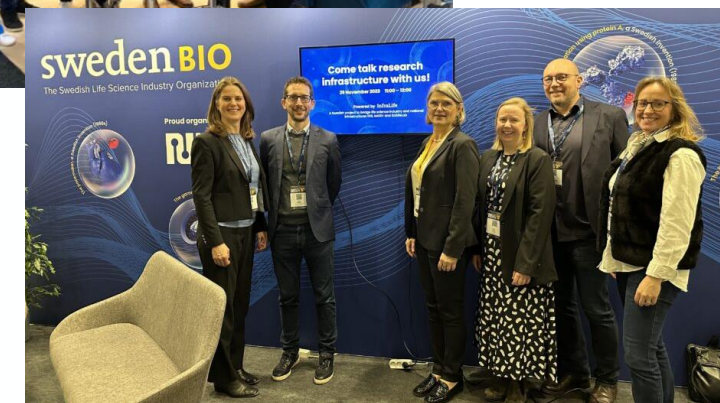


InfraLife

ThermoFisher
SCIENTIFIC

Industry focus

- Participation in Nordic Life Science Days 2022 and 2023.
- Industry user cases.
- SwedenBIO and LiF in steering group.
- Hosted x2 industry webinars.



12.11.2021
Open webinar



How can SciLifeLab, MAX IV and ESS contribute to drug discovery and development?

Jan 25, 12.00-13.30, on Zoom

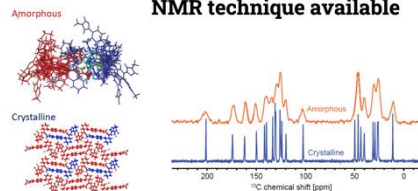
WEBINAR: DRUG DISCOVERY & DEVELOPMENT
Drug discovery & development possibilities for industry at SciLifeLab and MAX IV.



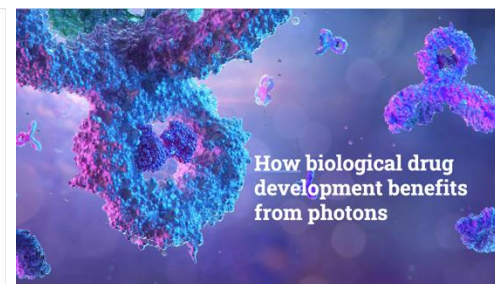
Discover the true potential of your biomaterial with X-rays



Breakthrough high sensitivity NMR technique available



How biological drug development benefits from photons



Same-day analysis kit for gene editing



Feasibility call 2024/2025

- The aim of the **InfraLife feasibility call** was/is to promote infrastructure use and collaborations within life science.
- The goal is to highlight the benefit of using multiple infrastructures to address a research question.
- The project had to be a project within life science research where at least two of the infrastructures SciLifeLab, MAX IV or the DEMAX facility of ESS is used.

Projects selected for funding

• Crystallographic fragment screening combined with in silico design to identify novel antivirals, **Flavio Ballante**, KI

• Spatial biology across scales and matters – combining omics with element distribution and structure, **Charlotte Stadler**, KTH

• Structural basis for the role of angiotensin-converting enzyme 2 (ACE2) as a novel regulator of transmembrane serine protease 2 (TMPRSS2) catalyzed proteolytic activation of outer structural proteins of respiratory viruses, **Wolfgang Knecht**, LU

• How the HtrA2:XIAP interplay initiates the apoptotic cascade, **Björn Burmann**, GU



Part of
today's
session



InfraLife at the 2021 versus 2025 MAX IV User Meetings

Life Science collaboration **2025**
between MAX IV, SciLifeLab and ESS

Room: TBA

Main organiser: Claire Lyons & Marc Obiols

2021



InfraLife
– Engaging the life science sector

- 4-year project funded by the Swedish Research Council
- Maximizing the benefits and utilization of ESS, MAX IV, and SciLifeLab
- Making the facilities more accessible to life science researchers in academia, industry, and healthcare

Project coordinators: Josefin Lundgren Gawell, PhD; Elin Jonsson, PhD

Partners: sweden bio, SWELife, Medtech, MedTech Health

ESS, SciLifeLab, MAX IV

InfraLife logos and social media handles (infra.life, @InfraLife)

One slide to entire session

Time:	Talk:
13:00	Overview of the InfraLife project, introduction to SciLifeLab & ESS and panel discussion on the importance of collaborations – Magnus Larsson & Marc Obiols (MAX IV) – Josefin Lundgren Gawell, Sandra Falck & Annika Jenmalm Jensen (SciLifeLab) – Hanna Wacklin-Knecht & Esko Oksanen (ESS)
14:20	☕ Coffee break
15:00	Integrated Structural Biology in Sweden, a collaborative and scientific example – Tobias Krojer (MAX IV) – Josefin Lundgren Gawell, Cecilia Persson & Flavio Ballante (SciLifeLab) – Esko Oksanen (ESS)
16:00	Spatial Imaging Methods, a collaborative scientific example with MAX IV and SciLifeLab – Marc Obiols & Bryan Falcones (MAX IV) – Oxana Klementieva (LU) – Charlotte Stadler (SciLifeLab)
16:45	Summary and future of the collaboration – Marc Obiols (MAX IV) & Josefin Lundgren Gawell (SciLifeLab & InfraLife)

Stay connected

Josefin Lundgren Gawell

Project Coordinator

Location: Stockholm

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SciLifeLab



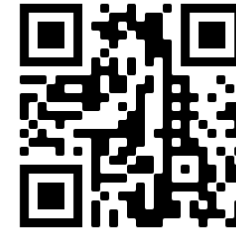
ESS
MAX IV

Claire Lyons

Project Coordinator

Location: Lund

claire.lyons@maxiv.lu.se



<https://www.infralife.se>



InfraLife



[https://www.linkedin.com/
company/infralife](https://www.linkedin.com/company/infralife)