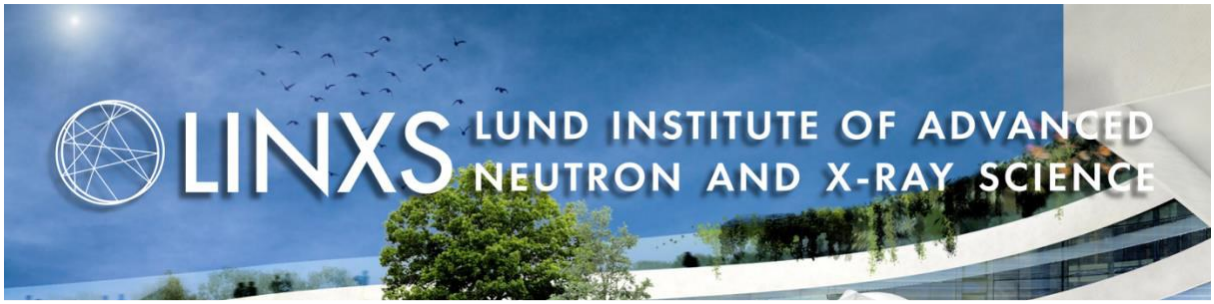

Words from the Director Stephen Hall

It is time for closure, and it is time for new beginnings. After three and a half years as the Director of LINXS, I am handing over the reins to Trevor Forsyth. It is great that Trevor is joining LINXS, and we have some great opportunities with him as the new Director with fresh views and different perspectives. I am very much looking forward to seeing this next stage of the LINXS's evolution.

During my time as director, I have interacted with many great people, both on the management side of LINXS and on the scientific side. I would like to thank everyone for making LINXS a success - LINXS is a community project and relies on the drive of the researchers and LINXS staff to make it work. I am very excited about how we have managed to build LINXS and its community and establish lasting collaborations and connections.

Of course, much of my time as director has been strongly influenced by the global pandemic, but it is great to see how the community at LINXS has been able to adapt to continue to connect researchers and we have even seen the LINXS network expand in spite of COVID-19. We now have a strong foundation strongly rooted in the national and international community.

In addition to renewal of the management, over the past year we have been renewing the Theme program at LINXS, with some concluding and new ones starting. Over the coming months we will document the impact of the closing themes in various ways and a number of articles and other outputs will be shared. Furthermore, it is great to announce the acceptance of the latest Theme, "Integrated Drug Discovery"; the development of which demonstrates how connections at LINXS can lead to new collaborations: the theme has three main components that derive, in part, from the three previous themes ISP, Imaging and Dynamics.

In the meantime, LINXS's activities continue to develop and we have been able to hold more in-person meetings with the reduced restrictions. We were very pleased to welcome our first visiting researcher after the COVID-19 induced hiatus - Prof. Adam Hitchcock. We hope that we will be able to welcome more people back in person to LINXS over the coming months and continue to grow the community. Please follow the progress and updates via our newsletters, the website and our physical and online events.

I will remain engaged in LINXS, as a LINXS fellow in the "Northern Lights on Food Theme" and during a transition period as co-director. Finally, thank you, again, to everyone involved in LINXS and I look forward to scientific discussions at the coffee machine at LINXS in the future!

Read the latest articles at linxs.se
Creating new communities – the legacy of the Imaging theme.
The ISB theme has progressed protein science and made it easier for disciplines to meet

Words from the incoming Director Trevor Forsyth

I look forward to meeting many of you at the LINXS Town Hall meeting on 3 December and to update you on the current status of LINXS alongside recent activities and developments. There are many exciting activities planned for 2022.

I guess the first thing I should do is to acknowledge the major effort that has gone into LINXS from Steve Hall over an extremely difficult period and to congratulate him on the amount of progress that he has made despite the obvious difficulties. Although the emerging situation is worrying, the last two years of LINXS activity under Steve's Direction have shown that difficulties, however dire, can be turned to advantage and progress made even if not in the way planned. There is also a big tribute to be made to Peter Schurtenberger, the founding Director, who brought LINXS into existence, and without whom the opportunities you are all seeking to exploit would not exist.

Despite the major progress that has been made with LINXS in the recent past, there remains a great deal of crucial work to do. LINXS has a primary mission to provide a framework within which key thematic areas are identified and developed such as to exploit the major national and international infrastructures to which Sweden is committed. MAX-IV and ESS are of course massive investments for the country and it is essential that they are paralleled by investments in the scientific portfolios that will exploit them. I am deeply committed to a vision that further enhances the efforts of LINXS for the wider Swedish user community as well as deepening international interactions that will cultivate new scientific approaches and share/extend technological capability within the national infrastructures. A key aspect of this will be to broaden the composition of the LINXS theme membership and to add to the inclusiveness of the working model. As part of this, it is worth mentioning that in addition to its national infrastructures, Sweden also subscribes to numerous international infrastructures (eg ILL and ISIS) and this offers major opportunities for the growth of Sweden's scientific user communities as facilities such as ESS come into existence.

Clearly a huge amount of effort has been and is being put into the development of these powerful facilities by some very experienced and distinguished scientists; inevitably the process of pushing the various capabilities and instrumentation suites is carried out in highly competitive research environments and from time to time tensions and fractures may occur. However a crucial consequence of these efforts is that capabilities are put in place that will be eagerly used by the young scientists – postdocs and PhD students. These PIs of the future may know nothing of the early efforts that put these capabilities in place; however they will readily use them and collaborate with the contemporaries without bias in order to get the best outcomes for their projects. LINXS is committed to the provision and stimulation of this type of vibrant interdisciplinary environment, with themes developing towards funded initiatives and regular visits (both long and short) by high profile sciences within relevant areas. LINXS will end up positioned in Science Village Scandinavia (SVS) at Brunnshög – and to my way of thinking as soon as possible!

The forthcoming Town Hall meeting promises to be extremely interesting – there is a lot to report on, with new themes being put in place for New Materials (Liz Backburn), Northern Lights on Food (Selma Maric and Tommy Nylander), Integrated Pharmacology and Drug Discovery, IPDD, (Karin Lindkvist). (More to come on the latest new theme in the next Newsletter). These activities are already starting to attract major interest and funding of the type that will be crucial for LINXS in the future. In addition, it is very gratifying to hear that the GISANS bid to VR has been successful – again strongly allied to LINXS activities. We will discuss the SAGA project and GISANS instruments in more depth at the workshop on 14 January.

MAX IV and ESS as engines for breakthrough science

If you missed the discussion organised by LINXS, as part of Lund University's Future Week, 18-24 October 2021 we provide the link to the subtitled video (below). The topics for discussion centered on what is needed to facilitate major scientific breakthroughs at large research facilities – breakthroughs that are sustainable, interdisciplinary and with potential to create real impact. The questions touch on: environments for research, transparency, creativity, collaboration and best practices based on the experiences from research clusters in other parts of the world.

Discussion panel:
Trevor Forsyth, Incoming Director of LINXS, Lund Institute of advanced Neutron and X-ray Science
Helmut Schober, Incoming Director General, ESS, European Spallation Source
Marjolein Thunnissen, Life Sciences Director, MAX IV Laboratory
Moderator: **Pia Kinhult**, Head of Host States Relations, ESS.

Link to video

Using the instrument SAGA, researchers can gain unique knowledge about cell wall surfaces leading to innovation opportunities for industry

Swedish universities, institutes and companies collaborate on planning new instruments for installation at ESS, the world's most powerful research facility for neutron radiation, outside Lund. The Swedish Research Council has now granted funding for two interdisciplinary projects as feasibility studies for future instruments at ESS: SAGA and HIBEAM.

Photo: Perry Nordeng, ESS.

- SAGA will give us a faster and more detailed understanding of the appearance and functioning of cell walls, for example. This will help us develop better medicines, food and packaging, as well as batteries and electronics for a sustainable society," says Tommy Nylander, Professor of Physical Chemistry at Lund University and active at LINXS – Lund Institute of Advanced Neutron and X-ray Science.

Read more in this article about the SAGA project at linxs.se

LINXS is on Twitter

LINXS has created an account on Twitter to further disseminate news and events from our institute. Please follow us there to get regular updates on our activities. Please also tag us if you want us to share news from your own organisation or to share other news on x-rays and neutrons! @LINXS_Sweden
We are also on LinkedIn! LINXS - Lund Institute of advanced Neutron and X-ray Science at Linkedin

LINXS events and related events

Here is a list of all the current events and activities taking place at LINXS, in partnership with LINXS or related to LINXS.
Events are open to all researchers from academia and industry.

LINXS related event - 2nd ANSTO Small Angle Scattering Online workshop, **1-3 December**
LINXS event - 2nd Membrane Protein Working Group Workshop, **7-8 December**
LINXS event - Workshop: Introduction to PyPhase - a Python package for X-ray phase imaging, **9-10 December**
LINXS related event - Lund University Protein Science Day, **10 December**
LINXS related event - Nordic Workshop on Scattering from Soft Matter | Aalto University, **10-11 January 2022**
LINXS event – SAGA GISANS workshop, **14 January, 2022**
LINXS related event - HALOS SYMPOSIUM – How to move life science research and innovation forward with macro-regional unique resources, **31 January, 2022**
LINXS related event - Graduate course: Digital image analysis for scientific applications – focus MAX IV,, **Jan - Feb 2022**
LINXS Science Day, **2 February, 2022**
LINXS related event - French-Swiss Meeting SANS for Soft Matter in Strasbourg, France, **2-3 February**
LINXS event – Amyolid workshop – Mind the Gap, **3-4 March, 2022**
LINXS Partner Event - 18th Food Colloids conference: Structure, Dynamics and Function, **10-13 April, 2022**
LINXS event – ISB Theme ending symposium, **4-5 May, 2022**
LINXS related event - FEBS 2022 Advanced course - Lost in Integration - Probing Biomolecules with Electrons, Photons, Neutrons and Magnetic Spins, **9-15 May, 2022**
LINXS event – Northern Lights on Food III Conference, **1-3 June, 2022**
LINXS Partner Event - Lipid Bilayers at ESS- BESS: **13-15 June, 2022**
LINXS related event - BSR14: 14th International conference on Biology and Synchrotron Radiation, **28 June - 1 July, 2022**

The LINXS newsletter is sent out approximately four times a year. It highlights news and events from LINXS, as well as information in the area of neutron and x-ray science.

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www.linxs.se