

First science and society event for Hamburg

EMBL Hamburg held its first Science and Society event on 15 June when Joachim Mnich, head of Research at neighbouring DESY, talked about the Large Hadron Collider Project at CERN (pictured) to an audience of about 40 people.

Hamburg's involvement began with a visit by EMBL Heidelberg's Science & Society Programme Manager, Halldór Stefánsson, on 13 January. "Halldór gave a seminar about the programme and had a brainstorming session with the newly founded Science and Society committee to discuss

possible ideas and plans for Hamburg," says Rosemary Wilson, EMBL Hamburg's Scientific Training Officer. "We hope to start with two talks per year and attract scientists and non-scientists alike from across the DESY campus and neighbouring institutes."

"I'm delighted that Hamburg is getting involved in the programme," says Halldór. "It's very important that such activities can benefit the outstations."

EMBL Hamburg's Science and Society committee is now planning the next event.

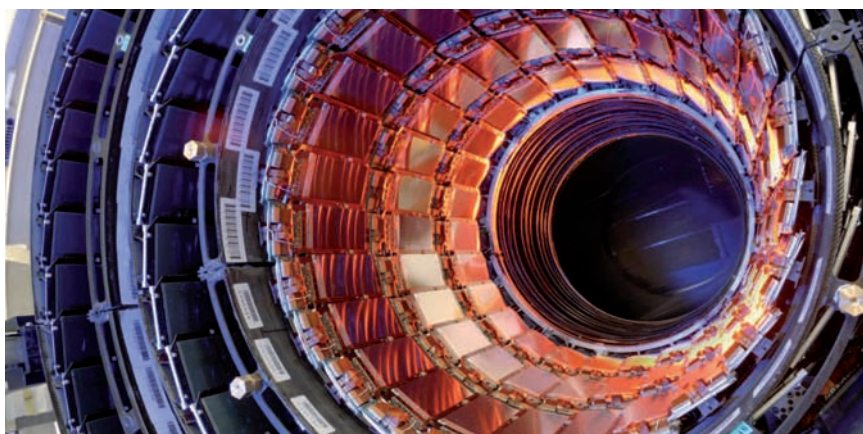


Photo: CERN

INSTRUCT and ELIXIR move forward

Two of six biomedical and life sciences projects with EMBL participants that are part of the European Strategic Forum on Research Infrastructures (ESFRI) Roadmap, INSTRUCT and ELIXIR, have both held important meetings recently.

The first INSTRUCT (Integrated Structural Biology Infrastructure) annual meeting took place in Florence on 29-30 April. 130 participants from 19 countries, including scientists, managers and government officials, discussed the work of the first year of the preparatory phase of the project and the plans for the future. EMBL's Structural Biology units in Grenoble, Heidelberg and Hamburg comprise one of the core partners of INSTRUCT.

The first day started with updates from the work packages covering the legal and financial planning, the access rules to infrastructures and building facilities and data management, before moving onto updates from the scientific working groups. Day two continued with several talks outlining a number of feasibility studies which are being carried out within the framework of INSTRUCT to address bottlenecks in existing

methodologies and technologies and to evaluate potential solutions. INSTRUCT will now enter the second project year, with important requirements to make decisions on supported activities and partnerships.

ELIXIR (European Life Sciences Infrastructure for Biological Information) had its steering and stakeholder meeting at the University of Copenhagen, Denmark on 19-20 May. ELIXIR has 32 partners in 13 member states and aims to construct a sustainable infrastructure for biological information in Europe, supporting life science research and its translation to medicine, the environment, industry and society.

In July the project will enter its 'documentation and negotiation' phase, during which an International Consortium Agreement will be developed and funding will be defined. The meeting recognised that coordination and prioritisation, as well as stable funding, is needed for many of the data resources provided by the partners.

"It is significant that bio-medical projects are part of the ESFRI Roadmap, as this is the first time that it has been recognised at this level that biology needs infrastructures in

Biology goes green

As key molecules tend to have limited availability, recycling is important. Now, the Molecular Medicine Partnership Unit (MMPU) of EMBL and Heidelberg University has uncovered the first step in the recycling of a crucial molecular tag that ensures correct translation, helping protect against genetic diseases.

During translation from gene to protein, control mechanisms check for mistakes. One, nonsense-mediated decay (NMD), is based on the molecular tag exon-junction complex (EJC), which indicates whether an RNA is faulty, potentially dangerous or should be degraded. Overall, a cell would need to mark around 400,000 sites with EJCs, but it only has 10,000 – so EJCs must be broken down as soon as possible and re-used. The MMPU researchers have discovered that a protein, PYM, is responsible for the disassembly and recycling of EJCs.

"It was assumed that ribosomes, which carry out protein assembly, simply iron out the EJCs as they pass," says EMBL's Niels Gehring, who carried out the research, published in the 1 May issue of *Cell*. "Now we see that without PYM, EJC disassembly is impaired."

PYM could also ensure that EJCs are not removed too early, which would compromise NMD; in turn, this would affect how diseases such as thalassaemia and cystic fibrosis manifest themselves. "Ultimately we would like to find ways to modulate NMD pharmacologically to influence the development of genetic diseases," says Matthias Hentze, EMBL's associate director, whose group works with that of Andreas Kulozik at the University Clinic Heidelberg in the MMPU.

the same way that the physical sciences do," says EMBL-EBI's Andrew Lyall, ELIXIR's Project Manager. "The nature of biological research is changing, thanks to the availability of high-throughput technologies such as next-generation sequencing. Rather than continuing to be an activity engaged in by individuals and small groups, it is becoming one in which large coordinated projects will make much more significant contributions."

www.instruct-fp7.eu

www.elixir-europe.org