EMBL

Annual Report

2025

embl.org

European Molecular Biology Laboratory

Imprint

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A time of transitions and continued discovery

After the deep tragedy of Peer Bork's passing, it feels profoundly difficult to take stock of and recognise the many milestones and accomplishments EMBL saw in 2025 without him here to celebrate alongside us. Peer embodied the organisation's curiosity and inclusive culture across all our missions, and I know he would have been proud to see the progress made by EMBL.

Peer was a wonderful man and an outstanding scientist. Always working at the frontier of science, he saw possibilities far before others – pushing new technologies, reconsidering analytical approaches to expand what questions we could now answer, and repeatedly, pushing our ignorance further back to reveal often surprising insights about the living world around us.

We had intended to write this foreword together, and I know he would be just as exuberant about the distance EMBL travelled in the past 12 months as I am. So, in his memory, let me momentarily reflect on these successes, many of which occurred during the nine months that Peer was EMBL's Interim Director General.

In 2025, EMBL showcased a wide spectrum of scientific leadership, from fundamental molecular mechanisms to AI-driven medicine and global research coordination. EMBL's role in strategically helping to guide European life sciences continues to grow. We had several activities where we are leading the way to leverage AI mindfully, so we can maximise its potential. EMBL will dig even deeper in this area, thanks to a very generous donation from the Hector Foundation. It will support key initiatives at EMBL, such as recruiting interdisciplinary talent, expanding AI infrastructure, and advancing training programmes, so we are extremely grateful for this forward-thinking gift.

Peer and I talked about the momentum we felt this past year. And as the trajectory seems to be rising, it's bittersweet when colleagues move on. Our Director General for the past six years, Edith Heard, who led us through a pandemic and serious European economic challenges, now leads the Francis Crick Institute. My close friend and colleague Rolf Apweiler officially retired from EMBL-EBI, and Matthias Wilmanns, the former head of EMBL Hamburg, retired this year.

The good news is that there is an ebb and flow that brings new members to the EMBL family: Michael Milne joined us this year as our Chief Operating Officer, and naturally, we have been looking forward to the start of Tony Hyman's mandate as EMBL's new Director General.

At this point, we are more than three-quarters of the way through the programme, 'Molecules to Ecosystems', out of which we began many collaborative projects. Moving forward in 2026, we feel Peer's absence as we actively finalise the next programme that will keep us at the frontier where he so often did his own research.

I will miss him greatly for many reasons – not the least of which was seeing what he would do next. We have lost a remarkable, energetic mind in this collective endeavour. But even without Peer, his impact will continue to push us forward.

Ewan Birney
Interim EMBL Director General (Jan 2026–March 2026),
Executive Director (March 2025–Jan 2026)

A message from incoming EMBL Director General Anthony Hyman

Reading this report, I am struck by the range of work across EMBL and the momentum built over the past year.

The year 2025 was one of both progress and loss. The death of Peer Bork is felt deeply across EMBL, and his influence is evident in many of the directions reflected here.

As I return to EMBL, I do so at a time when biology is changing rapidly, shaped by advances in imaging, data, and artificial intelligence. This report shows why EMBL continues to play a leading role in shaping biological science in Europe. I look forward to working with colleagues across EMBL as we take the next steps.

In 2027, we will launch a new scientific programme, building on this work and shaping the next phase of EMBL.

Anthony Hyman,
EMBL Director General, March 2026

Remembering Peer Bork (1963—2026)

A career and life marked by remarkable impacts at every level

It was with profound sadness that EMBL shared with the scientific community the news of the passing of our Interim Director General, Professor Peer Bork. At the time, we reflected on his extraordinary impact at EMBL and far beyond. Here we present an abbreviated account of those reflections.

Peer passed away from natural causes on 16 January 2026, leaving a lasting imprint on the fields of bioinformatics, metagenomics, and computational biology, as well as an enduring spirit of open, curiosity-driven exploration. He was more than a brilliant scientist — he was a mentor, colleague, and friend whose guidance and generosity helped shape countless careers and lives.

Early years

Born in the former East Germany (GDR) in 1963, Peer began his scientific career as a research assistant in Jens Reich's group at the Central Institute for Molecular Biology of the Academy of Sciences of the GDR. He went on to complete a PhD in Biochemistry at the University of Leipzig and his Habilitation in Theoretical Biophysics at Humboldt University in Berlin.

In 1991, he joined EMBL with an EMBO fellowship and became a visiting scientist in 1992. At the same time, he served as a project leader at the Max Delbrück Center for Molecular Medicine in Berlin, continuing on there as a visiting scientist.

During more than 30 years at EMBL Heidelberg, Peer held several leadership roles and played a central role in the organisation's development. He served as Head of the Structural and Computational Biology Unit from 2001 to 2021 and Director of EMBL Heidelberg from 2020 to 2025. In March 2025, he became Interim Director General, working closely with Interim Executive Director Ewan Birney and colleagues across EMBL's six sites.

From genomes to metagenomes

Peer began working in bioinformatics when the field was still emerging. Over the following decades, he helped drive its development into a discipline central to modern life science research. His work produced key biological insights and widely used tools and methods that allow researchers worldwide to analyse and interpret complex biological data.

Among his most notable contributions were studies on functional annotation of protein sequences, protein interaction networks, and drug–target interactions; the identification of gut microbial community types known as enterotypes; methods for reconstructing the tree of life; and the discovery of microbial markers associated with diseases, including colon cancer, pancreatic cancer, and obesity.

Peer was also deeply committed to international collaboration. He contributed to major research initiatives, including the Human Genome Project, the MetaHIT consortium studying the human gut microbiome, and the Tara Oceans project exploring microbial life across global marine environments. His later work advanced open data sharing in metagenomics, helping create global, freely accessible databases and tools for the research community.

Bringing European science together

Colleagues remember Peer for his foresight and pioneering outlook. As EMBL's Strategic Head of Bioinformatics, he fostered infrastructure supporting genomic and microbiome research across Europe. He contributed to major collaborative initiatives funded through programmes such as the European Union's FP7 and Horizon 2020.

More recently, he led EMBL's Traversing European Coastlines (TREC) programme, which conducted systematic sampling along Europe's coasts while engaging scientists and the public alike. The initiative reflected his belief that science thrives through collaboration across disciplines and communities.

A lifetime of achievements

Throughout his career, Peer worked at the frontiers of research with remarkable vision and enthusiasm. One of the most cited European life-science researchers, he mentored generations of scientists, many of whom now hold senior positions worldwide.

His work received numerous honours, and he was elected to several scientific academies, reflecting the global impact of his research and leadership.

His loss will be felt keenly across the global scientific community.

Research

To perform excellent fundamental research

EMBL's diverse research pushes the limits of biological knowledge, with researchers developing innovative techniques and technologies. In the current programme, seven overlapping themes facilitate collaborative, impactful work. Here are some key highlights from 2025:

Molecular Building Blocks: EMBL Hamburg scientists developed an improved way to measure certain properties of 'shapeless' proteins involved in diseases like Alzheimer's and Parkinson's.

Cellular and Multicellular Dynamics: Applying a technique often used by video game developers, EMBL Barcelona scientists developed a new computational method to reconstruct embryonic development.

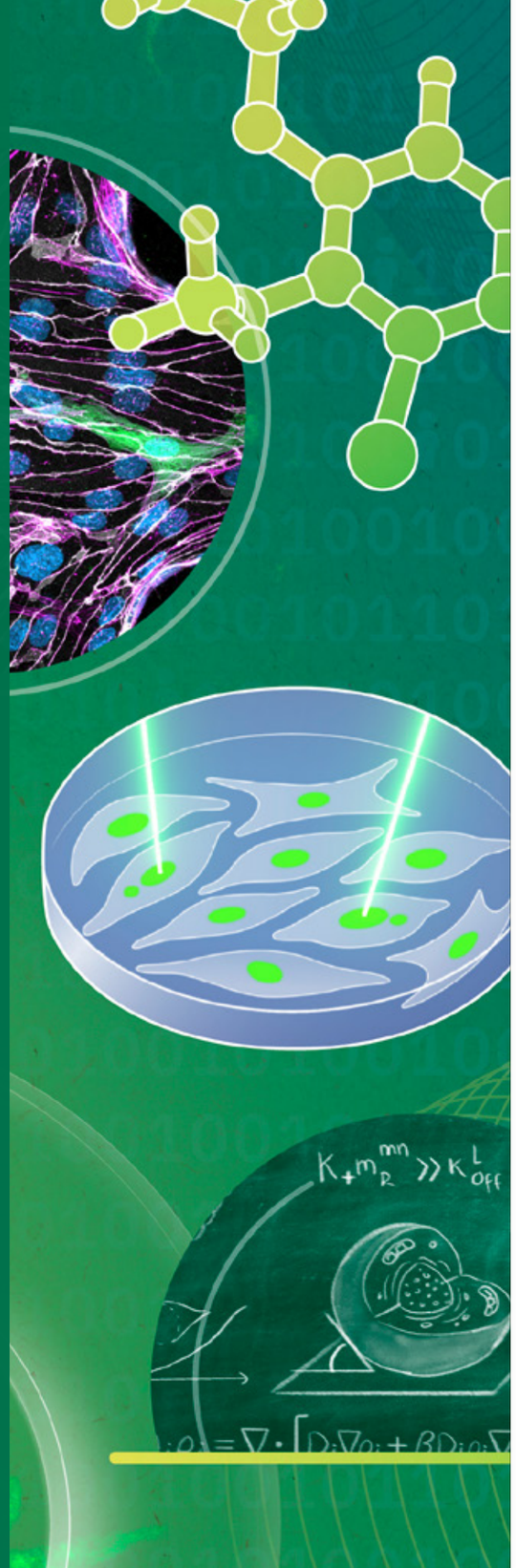
Microbial Ecosystems: A new meta-analysis from EMBL Heidelberg used machine learning tools to explore links between the gut microbiome and Parkinson's disease.

Infection Biology: EMBL Grenoble scientists found new structural insights in trypanosomes, parasites that cause sleeping sickness, Chagas disease, and other animal diseases. This finding could advance the development of anti-parasitic drugs.

Human Ecosystems: From EMBL-EBI, bioinformaticians developed an AI model that can estimate long-term risk of over 1,000 diseases and forecast human health changes more than a decade in advance (see page 11).

Planetary Biology: Several EMBL research groups became further engaged in using a powerful technique called expansion microscopy to peek deeper inside living organisms to better understand how they function (see page 9).

Theory@EMBL: Insights from theoretical physics proved helpful for scientists to understand how living cells process information and use it to self-organise.



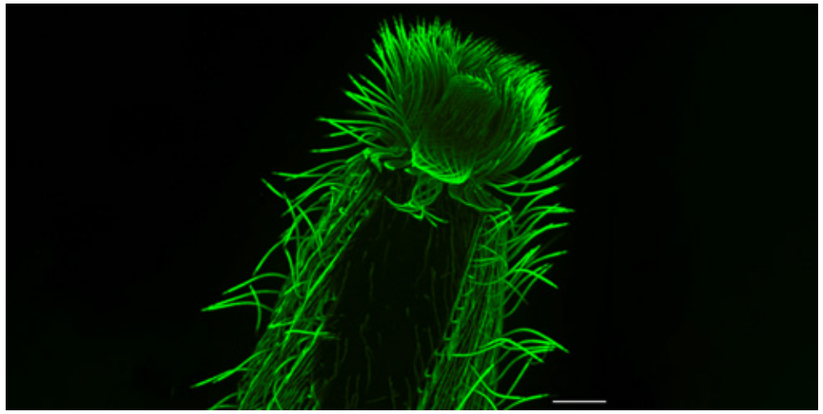
Expanding the biological world through microscopy

A powerful microscopy technique called expansion microscopy is helping EMBL scientists enlarge some of the smallest living organisms and cell parts, opening the door to discovering how cells and microscopic organisms really work.

Developed approximately 10 years ago, expansion microscopy works by physically 'expanding' biological samples. Samples can contain single-celled organisms, cells, or tissues and are allowed to expand such that many internal structures remain intact and grow larger, more or less proportionally. Scientists can 'magnify' a sample four or even 16 times this way.

EMBL scientists are increasingly finding new uses for this technique.

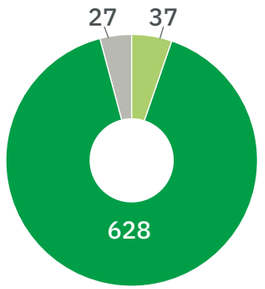
"Our adventures with expansion microscopy are only beginning," said EMBL Group Leader Gautam Dey. *"This is perhaps the first high-resolution microscopy technique that has the potential to match the scale and ambition of large biodiversity genomics projects, enabling us in the near future to associate new multiomics data with cellular physiology at scale across the tree of life."*



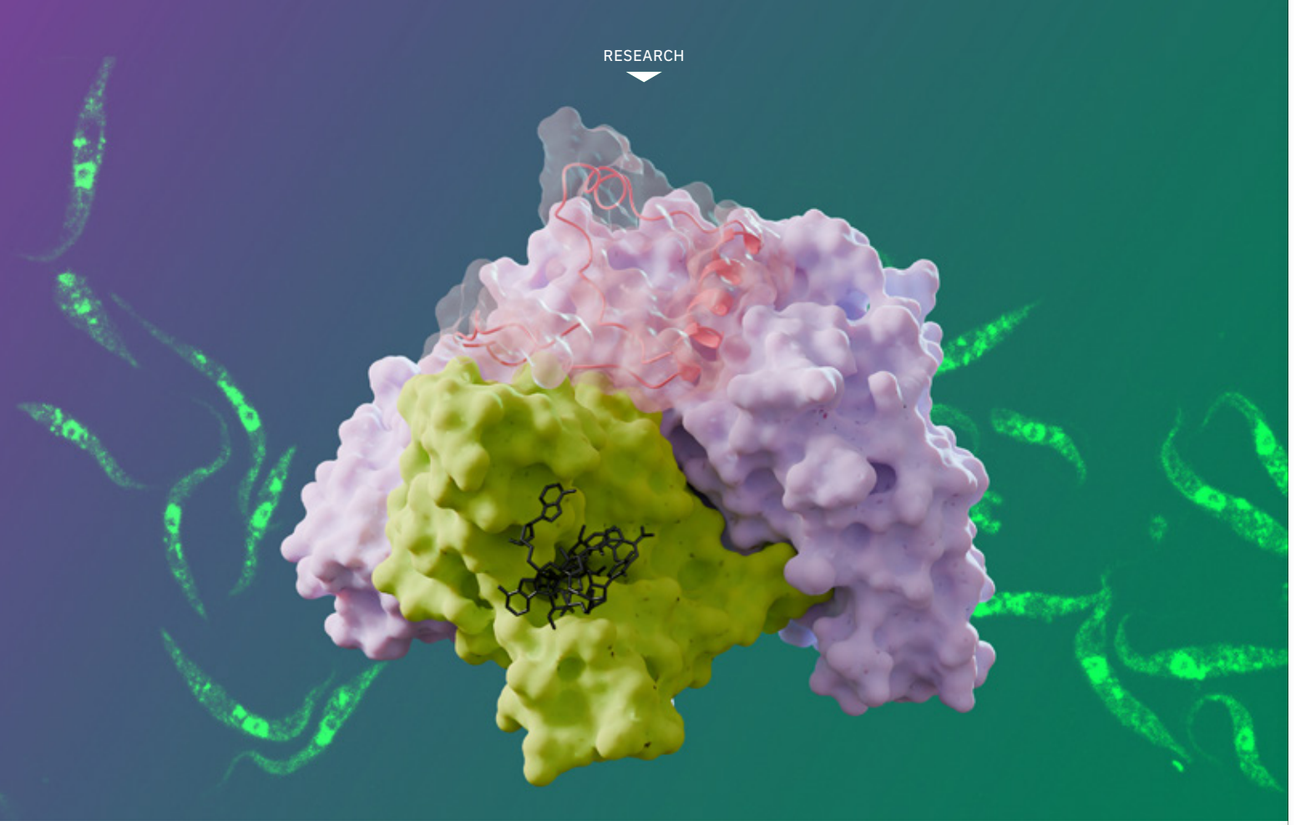
Expansion microscopy image of Lacrymaria, a ciliated eukaryotic microorganism, collected from environmental samples in Tokyo. Highlighted in green is tubulin, the major protein component of microtubules, a cytoskeletal filament (scale bar represents 5 microns). Credit: Felix Mikus/EMBL

COLLABORATIVE SCIENTIFIC PUBLICATIONS

In 2025, EMBL researchers produced **692** publications and mostly in collaboration with scientists within EMBL member or associate member states, as shown on this chart.



- By EMBL
- By EMBL in collaboration with organisations in member or associate member states
- By EMBL in collaboration with organisations in non-member states only



EMBL Grenoble scientists found new structural insights in trypanosomes, parasites that cause sleeping sickness, Chagas disease, and other animal diseases. This could advance the development of anti-parasitic drugs. Credits: Harald Bernhard/EMBL, Daniela Velasco/EMBL

COLLABORATIVE GRANTS

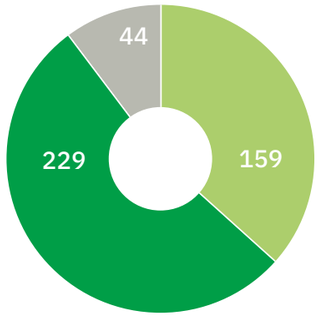
Beyond EMBL's member state funding, external grants support activities often done in collaboration with scientists beyond EMBL. These charts broadly break down the type of grants EMBL held in 2025.

432 grants:

Total Research grants: **269**

Total Infrastructure grants: **140**

Total Training and outreach grants: **23**



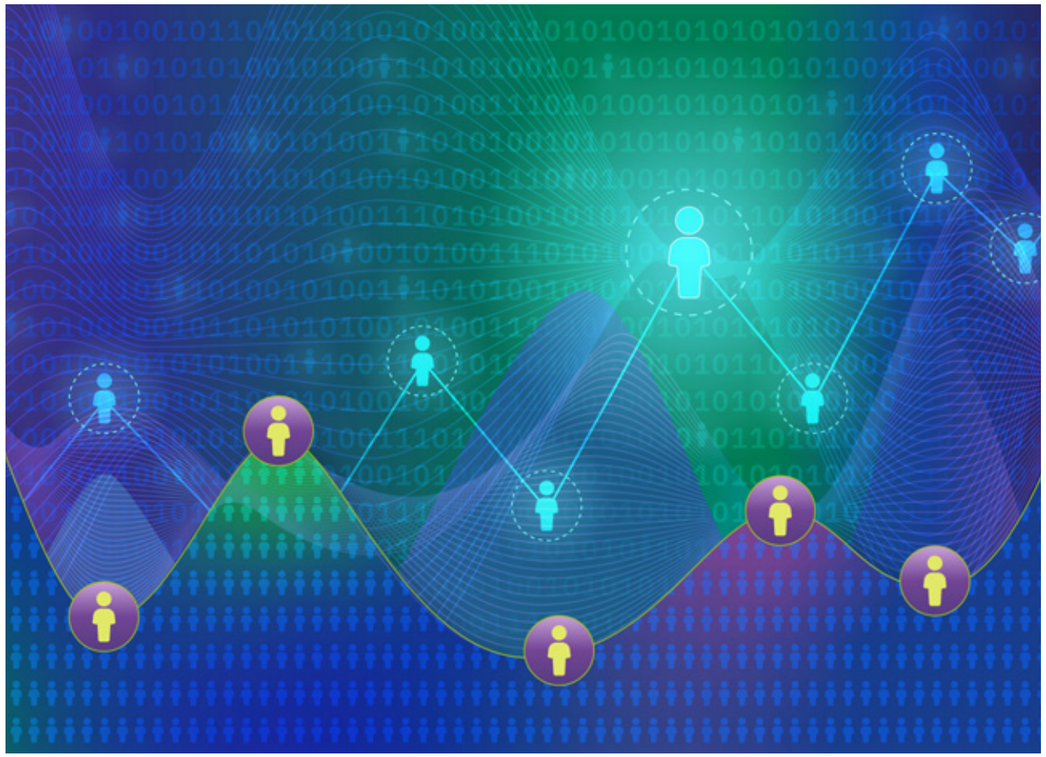
- By EMBL
- By EMBL in collaboration with organisations in member or associate member states
- By EMBL in collaboration with organisations in non-member states only

AI model forecasts disease risk decades in advance

EMBL-EBI researchers have developed an AI model that estimates long-term disease risk across more than 1,000 medical conditions and found it could forecast health outcomes more than a decade in advance.

While not ready for direct clinical use, the AI model offers new ways to study disease and inform healthcare strategies. This new generative AI model was custom-built using algorithmic concepts similar to those used in large language models (LLMs) and was trained and tested with anonymised patient data from the UK and Denmark.

"Generative models such as ours could one day help personalise care and anticipate healthcare needs at scale," said Moritz Gerstung, Head of the Division of AI in Oncology at DKFZ and former Group Leader at EMBL-EBI. *"By learning from large populations, these models offer a powerful lens into how diseases unfold and could eventually support earlier, more tailored interventions."*



AI model forecasts disease risk decades in advance. Credit: Karen Arnott/EMBL-EBI

Scientific Services

To offer access to research infrastructures and vital services to scientists in EMBL member states and beyond

EMBL's unique portfolio of scientific services enables researchers from member states and beyond to access a broad range of world-class infrastructures and resources through a single Europe-wide partner.

This year, EMBL services drew noteworthy philanthropic attention, recognising EMBL services' impact on the life science community: Boehringer Ingelheim Stiftung extended new support for the continued successful development of EMBL's Imaging Centre and new philanthropic support from the Klaus Tschira Stiftung was aimed at EMBL's mobile lab services, as it began fieldwork in freshwater ecosystems.

Here are just a few service highlights from 2025:

Experimental services and facilities: This year marked the beginning of EMBL's Mobile Lab offering its services beyond the TREC mission, and it did so with the University of Malta. The head of EMBL Rome's Gene Editing and Virus Facility shared thoughts on providing expertise to member states and beyond (see page 13). Additionally, unique EMBL Hamburg services enabled research that expanded knowledge of novel light-sensing proteins (cryorhodopsins) and served as an excellent demonstration of its beamlines and their adaptability to specific research projects.

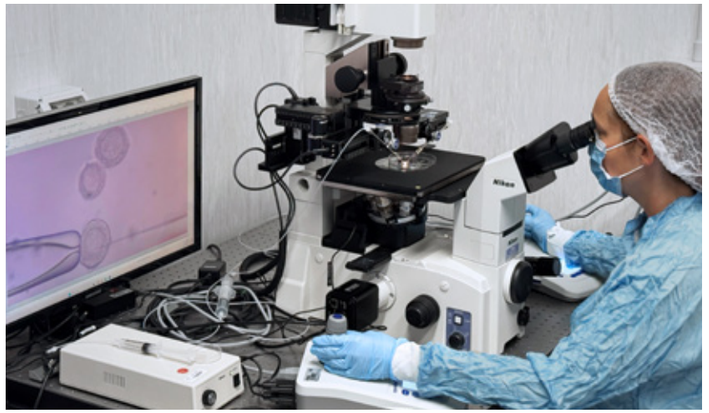
Molecular data services: EMBL researchers collaborated to build an easy-to-use 'zoo' of pre-trained AI models to help biologists and microscopists better analyse biological images. A new online portal now connects bacterial genomes with experimental resistance data to support antimicrobial resistance research. EMBL also released a comprehensive viral genome database that covers diverse ecosystems to advance our knowledge of virus evolution and ecosystem functions (see page 14).

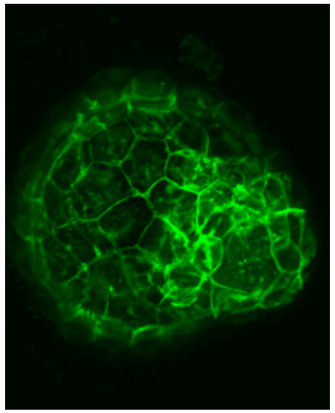
EMBL Rome's Gene Editing and Virus Facility supports diverse research projects

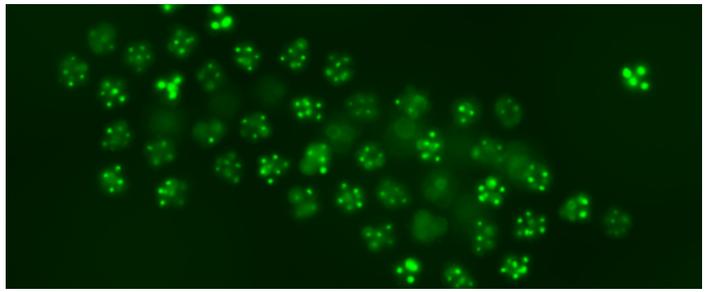
Since 2018, Neil Humphreys has led EMBL's Gene Editing and Virus Facility, working closely with scientists to develop new models, tools, and cutting-edge technologies to support discovery and translational research.

This unique facility at EMBL Rome supports scientists from across EMBL sites and external research institutes, offering comprehensive services, from vector design and virus delivery to fully characterised gene-edited mice and cell lines. Training is also a core element of all of EMBL's experimental services. Together with the technical officers at the facility, Humphreys also developed a highly sought-after, yearly training aimed at external researchers who want to learn how to create engineered mammalian cell lines or mouse models using the CRISPR/Cas9 system.

"With 26 internal and eight external gene-editing projects currently underway, it's both challenging, but also extremely fascinating to get a window into a very diverse range of research interests by helping meet some background requirements," Humphreys said. *"Being part of such varied projects is always very stimulating."*







EMBL's Gene Editing and Virus Facility (GEVF) provides a variety of expertise and services to scientists. At top left, a technician uses a microinjection rig to deliver gene-editing reagents into single-cell embryos. The image next to it shows a CRISPR-edited mouse blastocyst. In this example, the genetic instructions for a green glowing marker protein were added after the gene called ITGB1. Below, mouse embryos containing four to eight cells were infected with a virus carrying instructions to produce a green glowing protein called mGreenLantern. Credit: GEVF, Boskovic Group, Hiiragi Group/EMBL

VIRE: a global data platform to better understand viruses

Researchers from EMBL Heidelberg and the University of Tokyo developed VIRE, a database that integrates approximately 1.7 million viral genomes collected from over 100,000 public metagenomes.

VIRE surpasses existing viral resources in both scale and completeness, providing a valuable resource for analysing viruses, microbial communities, microbial hosts, and gene functions across diverse environments.

By systematically collecting viruses from human-associated and environmental metagenomes, VIRE is expected to become an international foundation for advancing research on viral evolution and ecosystem processes.

VIRE, a new database, integrates approximately 1.7 million viral genomes derived from more than 100,000 metagenomes worldwide. Credit: Creative Team/EMBL, stock.adobe.com

SCIENTIFIC SERVICES

EMBL experimental services support academic and industry users in Europe and beyond.

>3,800
Experimental services users

625
Scientific publications enabled

OPENLY ACCESSIBLE DATA RESOURCES

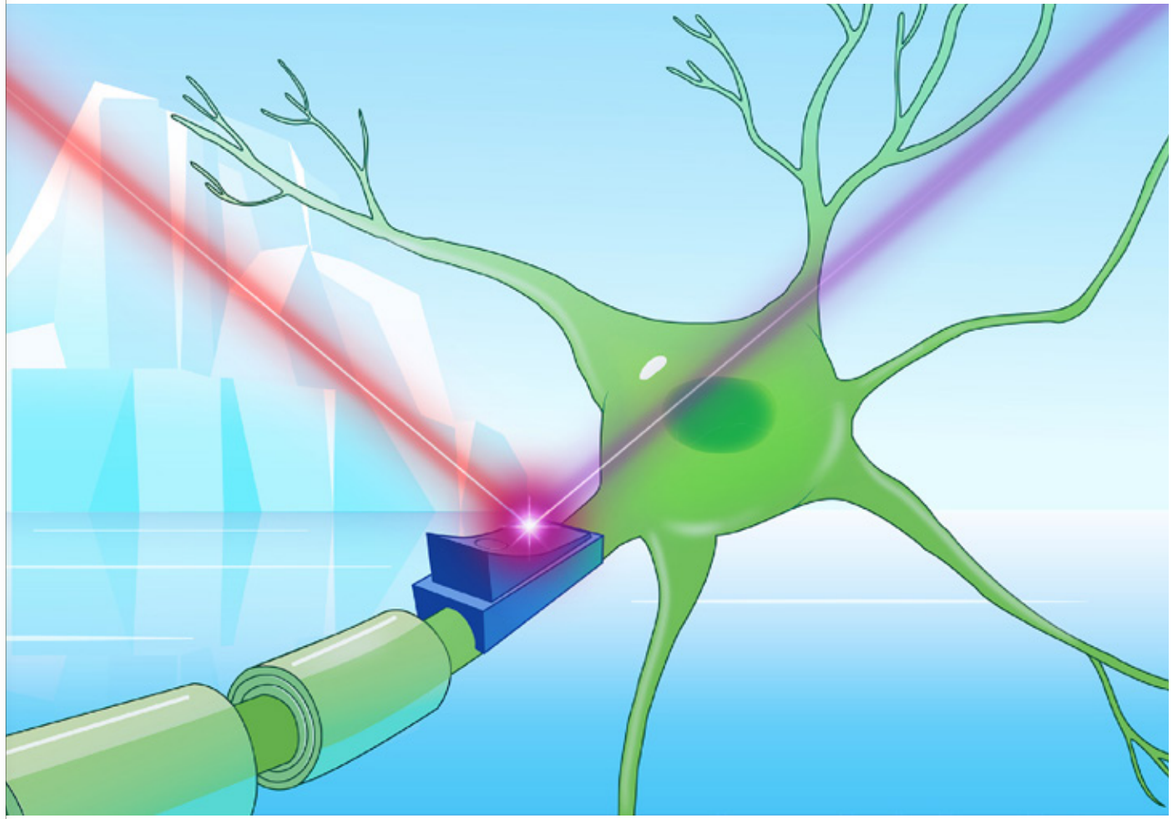
EMBL-EBI maintains the world's most comprehensive range of freely available and up-to-date molecular data resources. Developed in collaboration with scientists worldwide, these open databases, tools, and software can be accessed by anyone around the world.

122 million
Requests to EMBL-EBI data resource websites on an average day*

127 million
Unique IP addresses

>120,000
Scientific publications enabled by EMBL-EBI data resources

**A web request is defined as any time a user or computer algorithm asks for information on EMBL's web pages using HTTP. Requests may retrieve an entire webpage or just a single piece of information from an EMBL-EBI data resource.*



Scientists discovered a group of microbial rhodopsins found exclusively in cold environments, such as glaciers, and named them 'cryorhodopsins'. Cryorhodopsins are a group of proteins found in cold-loving microorganisms with the remarkable ability to turn cellular electrical activity on and off. Credit: Daniela Velasco/EMBL

Training

To train scientists, students, and visitors at all levels

EMBL's multifaceted training programme is committed to excellence in training at every level. Besides training scientists, EMBL has a Science Education and Public Engagement (SEPE) office that coordinates science education programmes and public engagement efforts. Here are some highlights related to EMBL training from 2025:

Courses, conferences, and scientific visitors: EMBL's formalised sabbatical programme gained momentum on multiple sites (see article on page 17). One conference explored the increasingly expansive world of model organisms that scientists use in research. EMBL's Corporate Partnership Programme industry members funded the highest number (270) of fellowships for courses and conferences since this programme began in 2009. And the EMBL Lautenschläger summer school, supported by a donation from the Manfred Lautenschläger Stiftung, celebrated its fifth year of introducing a diverse group of undergraduates to cutting-edge life science research.

PhD and postdoc fellow training and support: EMBL's ARISE programme continued to increase opportunities, providing training for the diverse skills required in infrastructure management. These fellows continue to go beyond EMBL's doors for a well-rounded experience, and one such fellow shared thoughts about his experiences in Sweden, gaining practical experience in cloud orchestration and production-grade software development (see page 19). Additionally, a new doctoral network began training fellows while potentially pioneering a new way to explore the cellular genotype–phenotype link.

Science education and public engagement: EMBL Grenoble participated in Parvis des Sciences, highlighting the importance of the human factor in AI development. SEPE introduced a new 'Summer of Science' event in Heidelberg and celebrated Oceans Day with the German-American Institute, bringing the underwater world closer to families in Heidelberg.

A lab away from home

EMBL's Sabbatical Fellowship Programme formalised opportunities for scientists to visit EMBL, offering structure to an informal occurrence, and 2025 proved to be a year when that momentum resulted in opportunities for collaboration, top-notch technology, and research advancement.

When EMBL's 'Molecules to Ecosystems' programme began in 2022, it included a concerted effort to attract and fund scientists for a mutually beneficial scientific exchange in the form of sabbaticals.

These fellowships enable principal investigators and senior scientists to join EMBL for extended sabbatical stays. Launched in 2023, the programme has supported 15 long-term visits by professors and principal investigators from diverse disciplines and regions. These fellowships serve as a strategic instrument to foster sustained, high-level intellectual exchange and long-term collaboration.

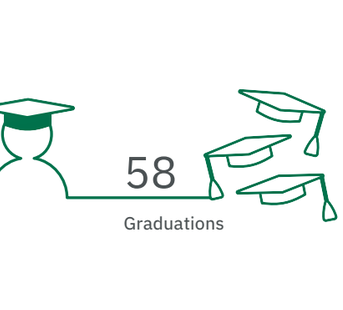
The initiative intended to bring 'non-traditional' scientific allies together at EMBL to enable cross-fertilisation of knowledge and expertise. It launched formally as part of EMBL's programme that broadened the organisation's strategic vision.

"The sabbaticals offer a period of reflection," said Aditya Sankar, Scientific Visitor Programme and Training Lead. *"Scientists can reinvent or reinvigorate their own research in a new setting characterised by talented scientists, new technologies, and fresh perspectives. They're able to gather new insights that help influence the speed, scope, and significance of their work."*

MULTIDISCIPLINARY POSTDOC PROGRAMMES

63
new postdocs

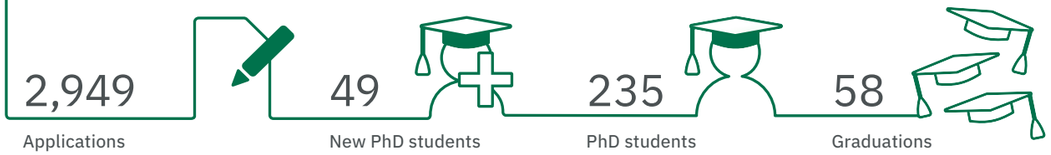
245
postdocs in total*



45
postdocs leaving in 2025

*Does not include former PhD students finalising their projects via a bridging postdoc contract.

EMBL'S INTERNATIONAL PHD PROGRAMME



Sharing scientific expertise

COURSES AND CONFERENCES

8,616 participants from **96** countries

attended courses and conferences hosted by EMBL sites

80% of participants were from EMBL member or associate member states

COURSES

40 courses

100% of courses rated as ‘very good’ or ‘excellent’ by the majority of participants

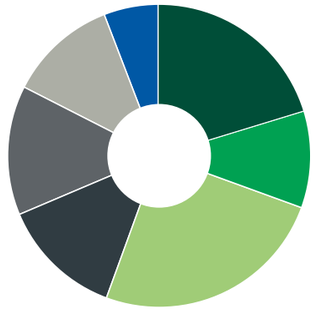
CONFERENCES

27 conferences

100% of conferences rated as ‘very good’ or ‘excellent’ by the majority of participants

SCIENTIFIC VISITORS

823 visitors



- 169 Master’s students and trainees
- 84 Master’s graduates
- 206 Visiting researchers
- 107 Visiting technical experts
- 113 Visiting postdoctoral fellows
- 98 Visiting predoctoral fellows
- 46 Visiting group leaders

70% of visitors from EMBL member states

CONNECTING COMMUNITIES

EMBL’s public engagement is aimed at fostering a pipeline of scientists and building community awareness of the role molecular biology plays in understanding themselves and the planet.

215 Activities delivered

>10,000 People engaged

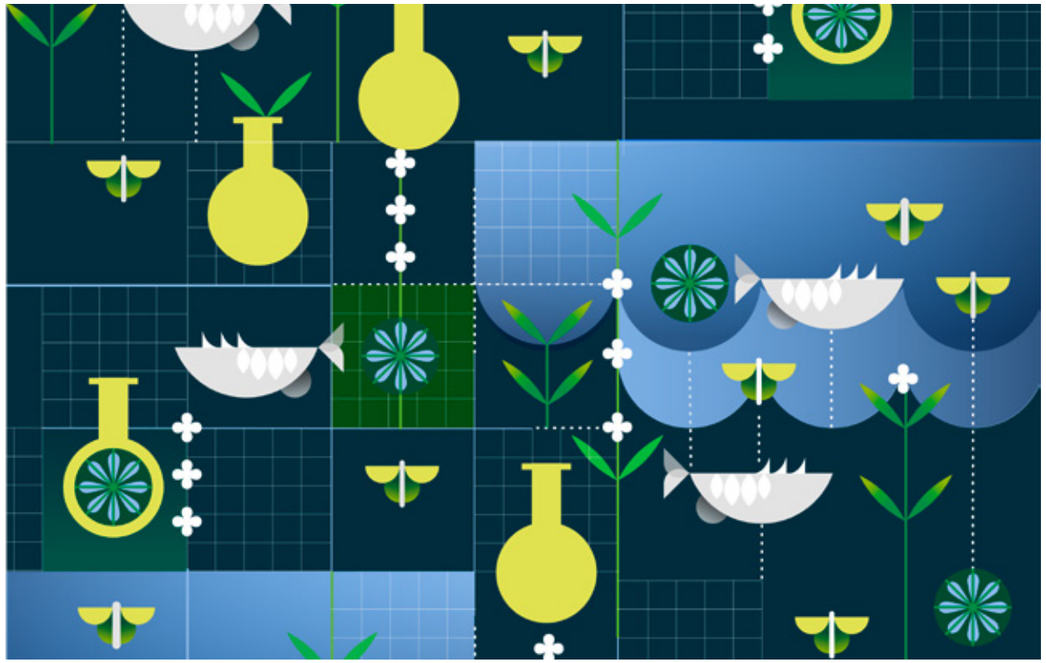
>100 Countries reached

SciLifeLab partnership enables ARISE fellow to gain practical experience in Stockholm

In 2021, SciLifeLab and EMBL signed a memorandum of understanding, and in 2025, as a partner in the ARISE Programme, SciLifeLab helped elevate at least one ARISE fellow’s work. While in Sweden, Thomas Weber gained practical experience in cloud orchestration and production-grade software development, advancing the ‘Depictio’ project.

When Weber got in touch with Jan Korbel, Head of EMBL’s Data Science Centre (DSC), to discuss an ARISE project initially, they decided on a proposal for scientific workflow results analysis and visualisation, now called ‘Depictio.’ The tool is a modern web platform, cloud-compatible, designed to aggregate data from frequently used workflows to further generate interactive dashboards.

“To anyone looking for an ARISE secondment, I would highly recommend SciLifeLab and its Data Centre,” Weber said, reflecting on his experience. *“The SciLifeLab Data Centre is a dynamic, rapidly expanding unit playing a pivotal role within Sweden’s national life science landscape.”*



An EMBO / EMBL Symposium challenged classical model organisms and explored the establishment of new model systems to generate novel insights into biology, ecology, and evolution of natural environments. Credit: Aleksandra Krolik/EMBL

Innovation & Translation

To engage in technology transfer and industry relations

EMBL's strengths in research, services, and training make it a perfect industry partner and a breeding ground for research that sows the seeds for technology transfer. EMBL's tech transfer arm, EMBLEM, is pivotal to that success. Here are just a few highlights in this mission from 2025:

Translating EMBL science: A new spin-off, Cerelixis, from EMBL Grenoble leveraged new insights into plant biology for more efficient crop protection (see page 21). Umlaut.bio, an EMBL start-up from EMBL Heidelberg, has found an important niche in drug development. EMBL Barcelona researchers were awarded a BII foundation grant that enabled them to further develop their placenta-on-chip technology.

Bridging academia, industry, and clinical applications: EMBL-EBI and Google DeepMind renewed their partnership and released an update to the AlphaFold Database. EMBL-EBI's Industry Partnerships team continued to facilitate impactful bioinformatics collaborations and knowledge exchange with the commercial sector, and the EMBL Corporate Partnership Programme welcomed Illumina as its 18th member. DECIPHER made available a new method for building growth charts for children with rare diseases to help clinicians and families understand child development.

Cerelixis: precision phytostimulants for resilient agriculture

To sustainably feed a growing population, we need complementary solutions to conventional crop protection, which already faces significant challenges from climate change, slow innovation, and strict regulations.

Researchers from EMBL Grenoble's Marquez Team contributed to the mechanistic understanding of abscisic acid receptors, components of a key signalling pathway that helps plants respond to environmental stress.

This discovery enables the development of precision phytostimulants, chemicals that could help crops grow better and be more resilient to adverse environmental conditions.

The research led to the creation of Cerelixis, an EMBL spin-off working on translating these findings into solutions for sustainable agriculture.

"At Cerelixis, we're pioneering smart, targeted solutions to enhance and safeguard crops by outsmarting biological and environmental vulnerabilities," explained Julia Santiago Cuellar, an EMBL alumna and now an Associate Professor at the University of Lausanne in Switzerland. *"We are helping to create powerful, precise tools that enable crops to resist threats, enhance resilience, and ultimately increase yields."*

TECH TRANSFER IN NUMBERS

EMBL's innovation and translation activities include industry collaborations, public-private partnerships, forums for knowledge exchange, invention disclosures, and the creation of spin-off companies. EMBLEM, EMBL's technology transfer arm, enables much of this, and in 2025, it helped develop and conclude collaborations between 49 industry partners and 32 EMBL scientists.

€19,228,000
Income

563
Licences, collaboration and service agreements concluded

27
Inventions disclosed

12
Priority patent applications filed

26
Patents granted

Integrating European Life Sciences

To foster collaboration between scientific communities in Europe and around the world

Each year, EMBL engages with numerous institutions in member states and beyond, maintaining and fostering close relations with scientific communities and government representatives. Here are just a few highlights from 2025:

Developing AI capacity for European life sciences: Alongside the European Commission and other European partners, EMBL explored ways for AI to advance life-science research in the context of the Danish Presidency of the Council of the EU (see page 23). EMBL solidified its collaborative role with the European Laboratory for Learning and Intelligent Systems. And the Hector Foundation committed important new support to transformative EMBL AI initiatives.

Strengthening science through global collaboration: EMBL and the Marine Research Centre at the University of Vigo, Spain, came together for a project that includes red tide research. EMBL's Polish partners, along with Nordic collaborator DANDRITE, met jointly to explore ways to strengthen scientific networks. The fifth EMBL Partnership Conference brought together EMBL partners specifically to explore how AI can drive innovation in One Health.

Fortifying ties to member states: EMBL's TREC initiative began a pilot project on the Rhine River. EMBL formalised its relationships with Australian research entities to encourage collaboration in bioinformatics and related activities. An event with prospect member state Bulgaria showcased collaborative opportunities.

Leading the way in European science: In 2025, EMBL started its term of chairing the EIROforum presidency. EMBL also submitted expert advice on key priorities to the European Commission's strategies for research infrastructures and life sciences.

Engaging with EMBL's alumni community: In addition to three years of support from the Bodossaki Foundation, a new donation from alumna Waltraud Ackerman facilitated the Kafatos lecture in 2025. At these lectures, world-class life scientists, such as Nobel Laureate May-Britt Moser (see page 24) share their science with the public. The 2025 alumni award recipients represented the continuing excellence seen in the work of EMBL alumni.

AI in Science Summit: Europe charts a new course for AI-powered discovery

The 2025 AI in Science Summit brought together scientists, innovators, investors, and policymakers to chart the future of artificial intelligence in European scientific discovery.

Co-hosted by the European Commission, the Danish Presidency of the Council of the EU, and the University of Copenhagen (with EMBL as strategic partner and co-curator), the Summit explored how AI can strengthen scientific discovery. It also marked the launch of the Resource for AI Science in Europe (RAISE) initiative, establishing the foundations of a coordinated, pan-European effort to support AI-powered science.

Agata Laydon, Science Pillar Lead for the Impact Accelerator at Google DeepMind, traced the journey of AlphaFold from a bold new idea to a game-changing AI tool.

"Reflecting over the last five years, I think the decades of experience EMBL-EBI brings from managing these world-class data resources, data infrastructure, and training have enabled us to maximise the reach and benefit of AlphaFold for the global community," Laydon said.

Anna Kreshuk (left) speaks to Ekaterina Zaharieva, European Commissioner for Startups, Research, and Innovation at the AI in Science Summit 2025. Credit: Vicky Hatch/EMBL-EBI

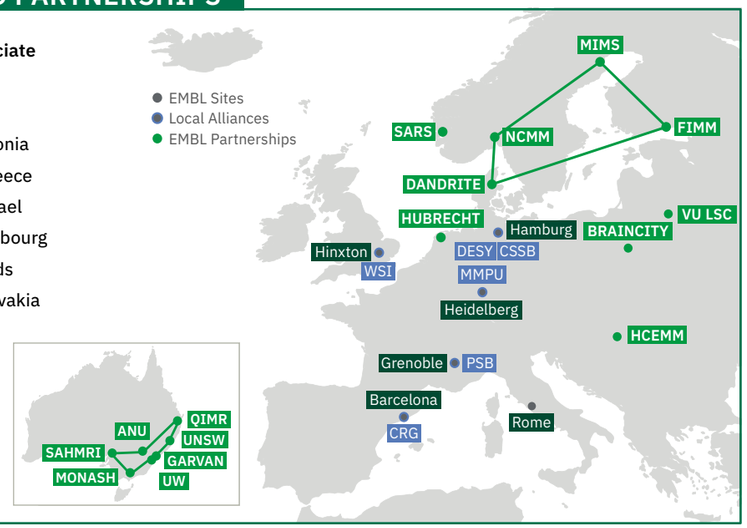
MEMBER STATES AND PARTNERSHIPS

EMBL member states and associate member states

Austria | Belgium | Croatia
Czech Republic | Denmark | Estonia
Finland | France | Germany |Greece
Hungary | Iceland | Ireland | Israel
Italy | Latvia | Lithuania | Luxembourg
Malta | Montenegro | Netherlands
Norway | Poland | Portugal | Slovakia
Spain | Sweden | Switzerland
United Kingdom | Australia

EMBL prospect member states

Bulgaria | Serbia



This year's Kafatos Lecture featured Nobel Laureate May-Britt Moser and was held at the International Student Festival in Trondheim, Norway. Credit: Vincenzo Lullo/EMBL

Nobel laureate discusses the brain's extraordinary GPS at Kafatos Lecture

In 2025, Nobel laureate and neuroscientist May-Britt Moser delivered the Kafatos Lecture at the International Student Festival in Trondheim, Norway. Her lecture highlighted the discovery of the brain's internal navigation system, focusing on grid cells, an internal coordinate system that enables spatial memory and orientation, or as she put it: "the brain's own internal GPS system." This work, conducted with Edvard Moser and collaborators, was recognised with the 2014 Nobel Prize in Physiology or Medicine and continues to shape our understanding of higher cognitive function and neurological disease.

Alumni contributions remain central to enabling such initiatives. In 2025 – in addition to support from the Bodossaki Foundation – a new donation from alumna Waltraud Ackermann facilitated this year's Kafatos Lecture, helping to bring leading scientists and cutting-edge life science research to broader audiences.

"This discovery has provided new insights into how the brain organises information and performs high-level cognitive functions," Moser said. *"This knowledge could lead to advancements in treating conditions like Alzheimer's disease, which affects spatial memory and navigation."*

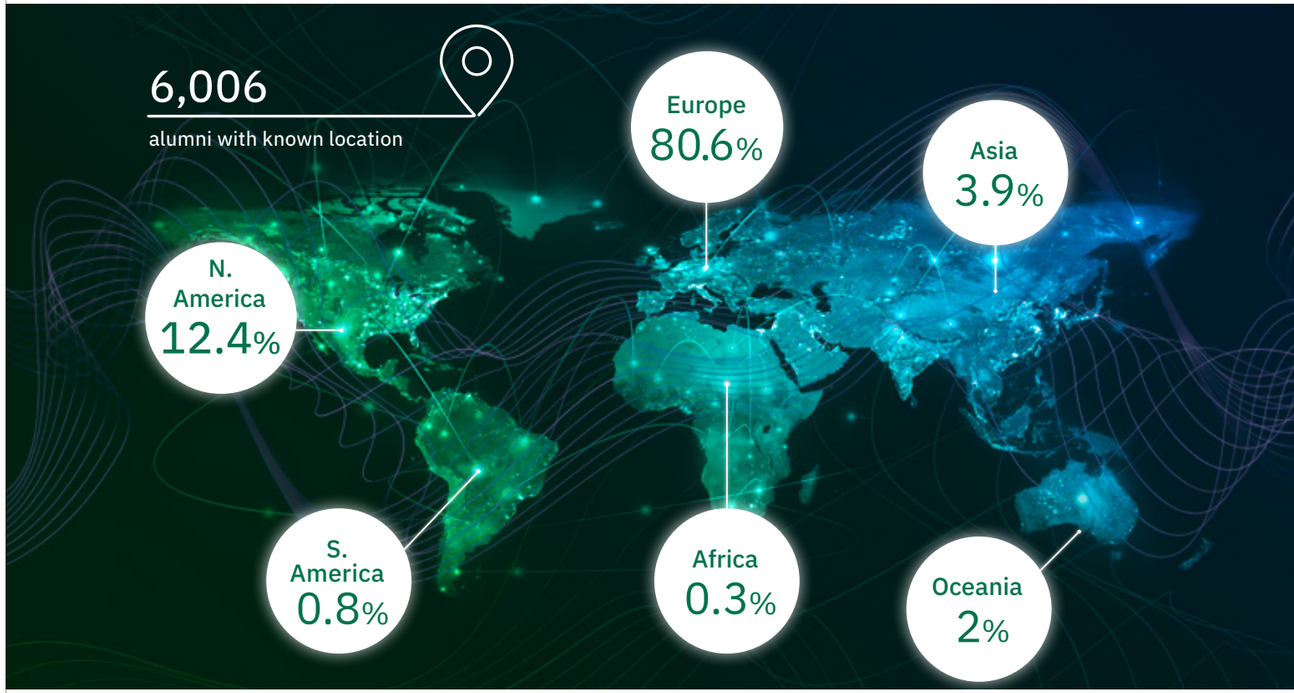
EMBL Alumni Relations

EMBL's alumni are a network of highly trained scientists, technicians, bioinformaticians, communicators, and administrators, 81.5% of whom live in EMBL member and associate member states. Together, they bring the EMBL model of research to Europe and beyond, strengthening links between EMBL and local scientific communities through research, services, and training.

In 2025, approximately 2,212 alumni engaged in activities and initiatives across EMBL sites as ambassadors, participants, volunteers, and donors. These interactions continue to play a vital role in fostering a connected, active, and supportive alumni network.

The 2025 John Kendrew and Lennart Philipson awards were presented to Irma Querques and Florent Cipriani, respectively, reflecting the ongoing excellence and impact of EMBL alumni worldwide. Thanks to donors Roland Specker and EMBLEM for making these awards possible.

A recent addition to these engagement activities is the Kafatos Lecture, organised annually by EMBL Alumni Relations and supported by the Bodossaki Foundation for the past three years in honour of former Director General Fotis Kafatos. As part of EMBL's broader programme of awards and recognitions, the lecture extends EMBL's reach beyond its immediate community, engaging early-career scientists and students in the wider life sciences field, while strengthening connections with alumni.



Credits: Creative Team/EMBL, adobestock.com

People, Processes, Places

The year 2025 marked the 50th anniversaries of two EMBL sites: Hamburg and Grenoble. We bid farewell to our Director General, Edith Heard, former EMBL-EBI Director Rolf Apweiler, and EMBL Hamburg Head of Site, Matthias Wilmanns. We welcomed a new Chief Operating Officer, Michael Milne, and Sarah Dickinson Hyams as Head of People and Culture Development. The year also included an important pan-EMBL event on responsible research assessment.

Equality, Diversity, and Inclusion

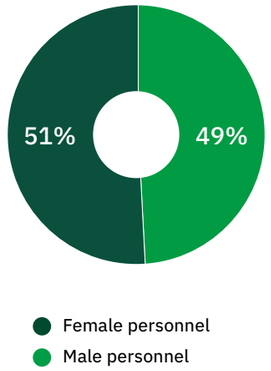
EMBL's Equality, Diversity, and Inclusion office pivoted and took on a new name with an expanded scope. Sarah Dickinson Hyams joined EMBL as Head of People and Culture Development. This office now incorporates professional development, and Hyams explained why this is such a good fit.

"Career development and EDI actually go hand in hand," she said. *"Diversity and inclusion are essential components of a thriving, innovative workplace and play a crucial role in shaping successful career development. Access to good career development pathways, opportunities, and frameworks is fundamental for recruitment and retention, as well as career progression, and in today's evolving work environments, career development requires an understanding of EDI."*

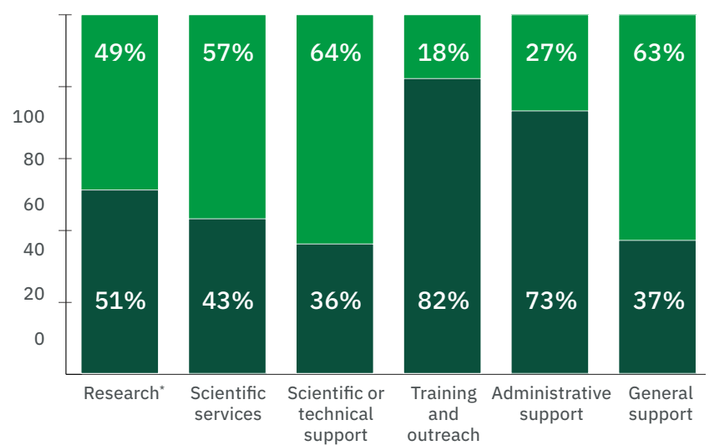
People and Culture Development is about unlocking potential, enabling people to thrive, and ensuring opportunities are fair and accessible. Training, coaching, mentoring, and leadership programs are designed to support personal, professional, and cultural development with inclusivity in mind.

GENDER DISTRIBUTION AT EMBL

EMBL aims to be transparent about its gender distribution. While gender distribution is balanced across the organisation as a whole, the EDI strategy aims to balance the inequalities seen in some staff categories.



*Six personnel members identified as non-binary.



A more sustainable EMBL

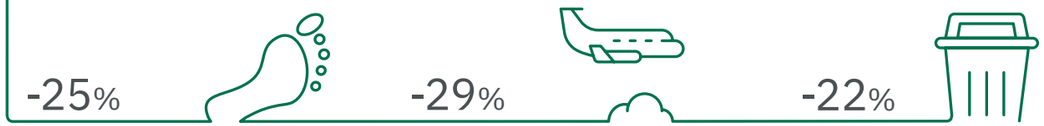
In 2025, EMBL continued to reduce its carbon footprint and seek out energy-saving measures. For example, IT services – a significant energy consumer – has reduced its carbon footprint by 50% compared to 2019, the baseline for EMBL's sustainability strategy.

Additionally, EMBL is using the Laboratory Efficiency Assessment Framework (LEAF) to monitor the sustainability of research groups across sites. In fact, the entire Grenoble site has now been certified as 'gold' for its green lab measures. The results reflect EMBL's commitment to reducing its environmental impact and embracing sustainable practices.

EMBL Grenoble turned its Silver LEAF award into Gold in 2025, achieving the highest level of sustainability in the LEAF programme. On right, Brendan Rouse, EMBL Head of Sustainability, presents the new certificate to Kristina Djinovic Carugo, Head of EMBL Grenoble, and Peter Panchev, Technical Unit Laboratory Manager, who was pivotal in making this possible. Credit: Kim Nalin/EMBL

A MORE SUSTAINABLE EMBL

Metrics are compared to baseline year 2019. EMBL continues towards its sustainability goals.

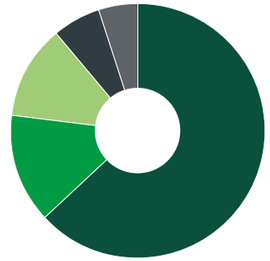


(Compared to 2019)

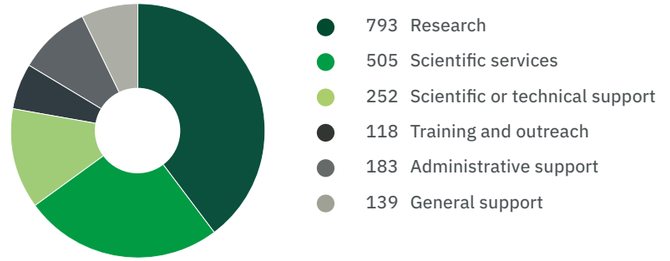
Personnel statistics

PERSONNEL

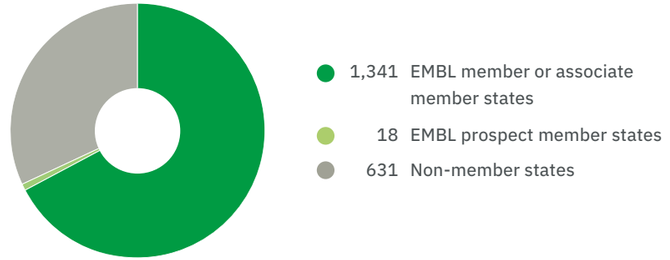
PERSONNEL CATEGORIES



STAFF CLASSIFICATION



STAFF NATIONALITIES



Total 1,990

in full-time equivalent (FTE)

Financial report

Member states provide the majority of EMBL funding, with additional external support from a wide range of grant-endowing bodies and philanthropic contributions.

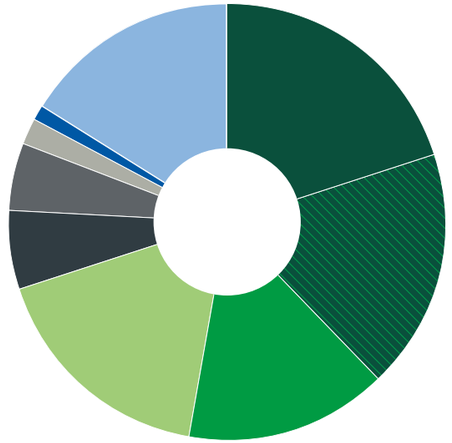
EMBL TOTAL INCOME

€373.6 million

- 44% Member state contributions
- 3% Member state special contributions[1]
- 19% External grant funding
- 4% Other external grant funding[2]
- 29% Other receipts[3]

EXTERNAL GRANT FUNDING

€72.7 million



- 20% EC
- 18% ERC
- 15% NIH
- 17% Wellcome Trust
- 6% BBSRC
- 5% DFG
- 2% BMBF
- 1% HFSPO
- 16% Others

1. Includes additional contributions from the UK government for the second phase of the EMBL-EBI Data infrastructure programme.
2. Includes ELIXIR member state contributions.
3. Includes items such as philanthropic donations, contributions from EMBO, course and conference fees, internal tax, and income from the Heidelberg canteen, cafeteria, and guesthouses.

MEMBER STATE CONTRIBUTIONS

	× €1,000	%
Ordinary contributions		
Austria	3,555	2.2
Belgium	4,330	2.7
Croatia	452	0.3
Czech Republic	1,842	1.1
Denmark	2,957	1.8
Estonia	122	0.1
Finland	2,117	1.3
France	22,362	13.8
Germany	33,236	20.6
Greece	1,632	1.0
Hungary	1,163	0.7
Iceland	210	0.1
Ireland	2,100	1.3
Israel	3,442	2.1
Italy	16,577	10.3
Latvia	126	0.1
Lithuania	469	0.3
Luxembourg	388	0.2
Malta	113	0.1
Montenegro	48	<0.1
Netherlands	7,545	4.7
Norway	3,377	2.1
Poland	4,912	3.0
Portugal	1,793	1.1
Slovakia	856	0.5
Spain	11,714	7.2
Sweden	4,589	2.8
Switzerland	5,994	3.7
United Kingdom	23,681	14.6
	161,702	100

	× €1,000
Associate member state contributions	
Australia	4,077
	4,077
Additional contributions	
United Kingdom (Euro)	10,881
	10,881

EMBL TOTAL EXPENDITURE

EMBL's expenditure prioritises research, scientific services, and training activities – all of which are geared towards collaborating with, scientifically supporting, or training member state scientists.

€358 million

EXPENDITURE

- 67% Staff costs
- 27% Operating costs
- 6% Equipment expenditure, including depreciation

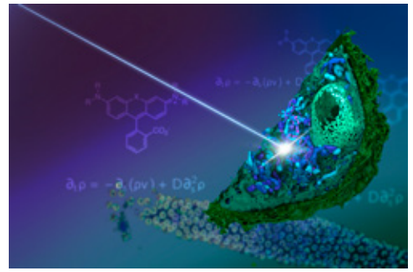
EXPENDITURE BY AREA OF ACTIVITY

- 32% Research
- 27% Scientific services
- 11% Scientific or technical support
- 8% Training and outreach
- 12% Administrative support
- 10% General support

EMBL Unit Reviews

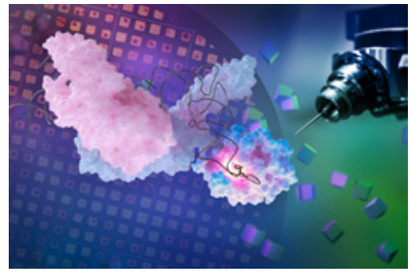
Each year, international experts review different parts of EMBL's research, service, and training units. In 2025, the reviewed units included:

EMBL Cell Biology and Biophysics Unit (CBB): This research unit is one of EMBL's oldest and largest. Established in 2010, it has developed into a highly interdisciplinary department with a strong international reputation for advancing mechanistic cell biology. The Unit fosters a highly collaborative environment that has integrated discovery-driven research with pioneering technology development. This approach has positioned the Unit at the forefront of innovation in microscopy, AI-based image analysis, and quantitative cell biology.



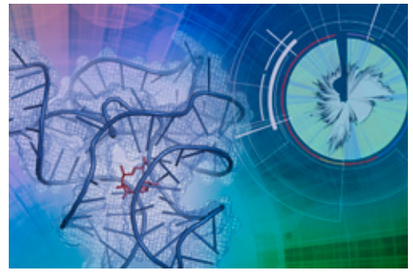
Credits: Isabel Romero Calvo/EMBL

EMBL Grenoble: Since 2022, Kristina Djinovic-Carugo has served as Head of EMBL Grenoble. In recent years, the research portfolio there has shifted from a focus on RNA biology to a broader range of biological investigations, along with a notable transition from X-ray crystallography to cryo-EM, a direction that will intensify with expansion into cryo-electron tomography. The instrumentation teams have achieved significant advances in automation, sample preparation and quality control, benefitting the local research groups as well as others across EMBL and beyond.

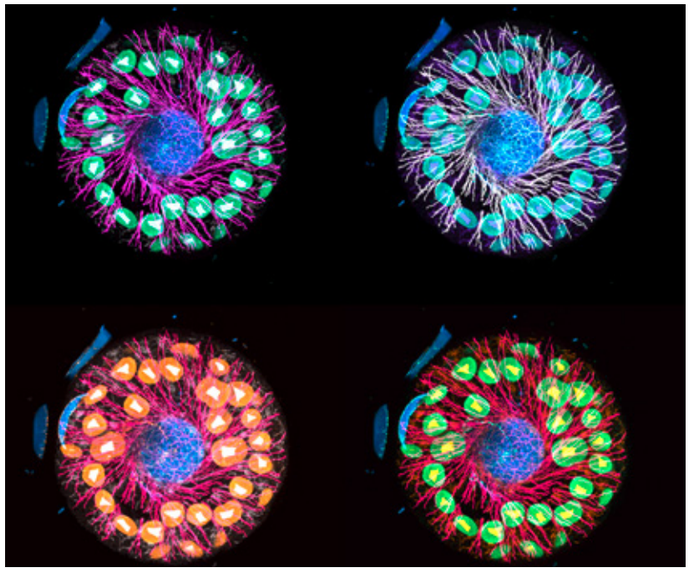


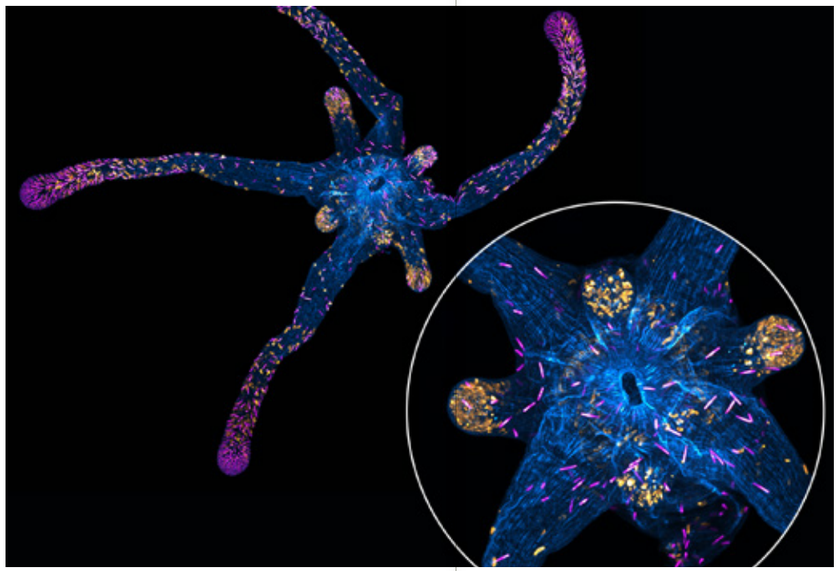
Credits: Creative Team/EMBL

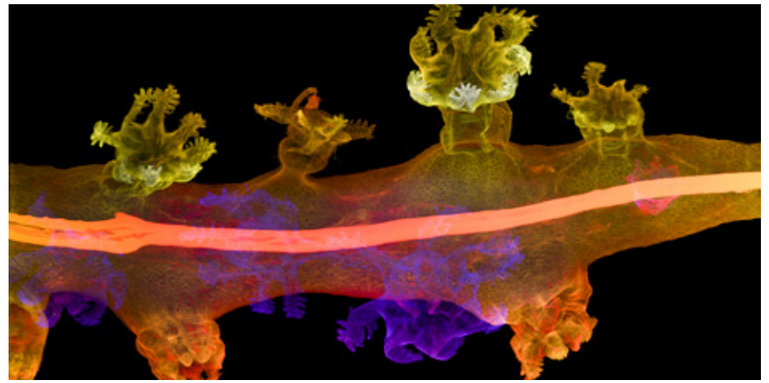
EMBL-EBI Research: With biology becoming ever more quantitative, unprecedented opportunities exist to create innovative approaches to solve big data challenges and build practical solutions to real-world problems. These research groups remain at the forefront with highly collaborative and interdisciplinary approaches, regularly publishing impactful works on sequence and structural alignment, genome analysis, basic biological breakthroughs, algorithms and methods of widespread importance across the life sciences. EMBL-EBI's central role in developing and embedding an EMBL-wide AI strategy has been a key point of recognition.

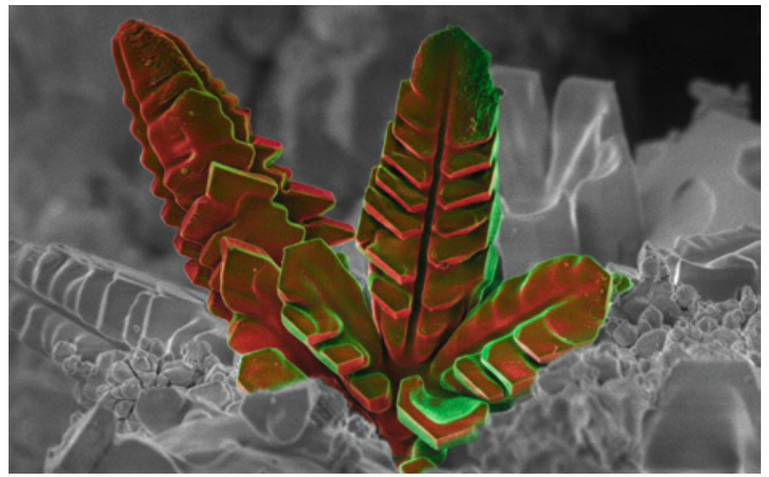


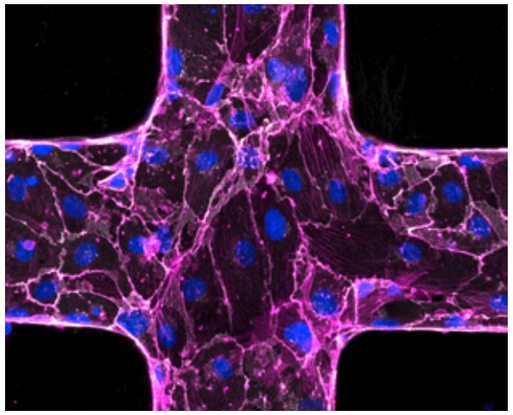
Credits: Karen Arnott/EMBL-EBI

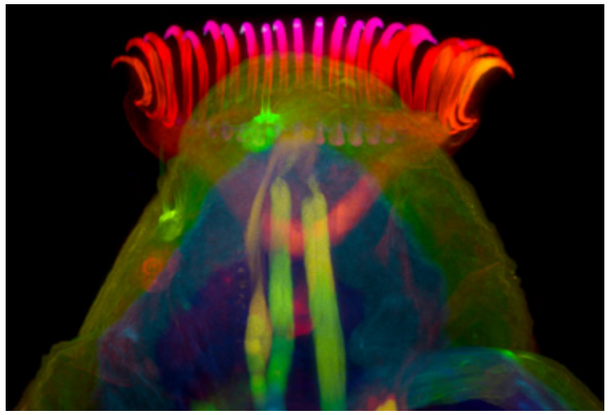


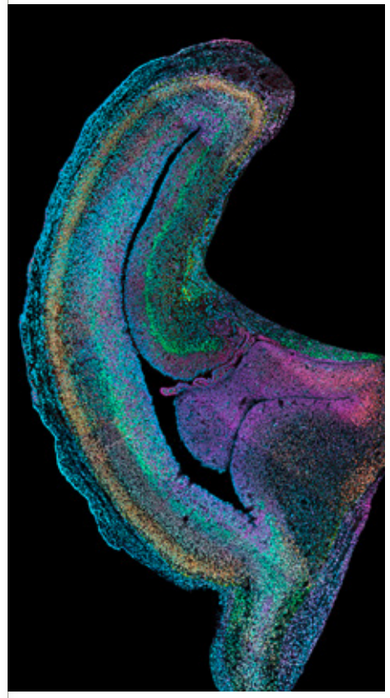


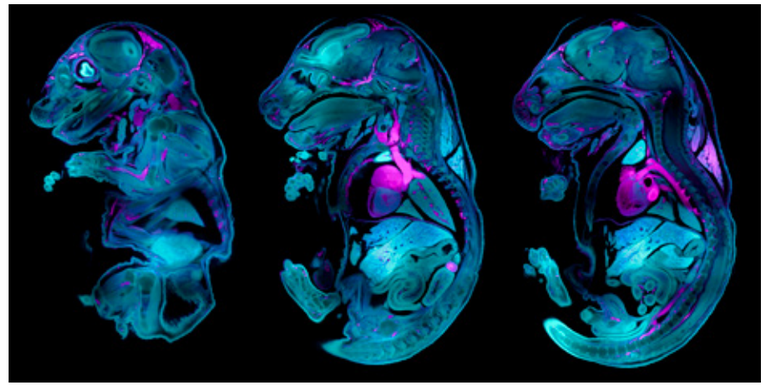


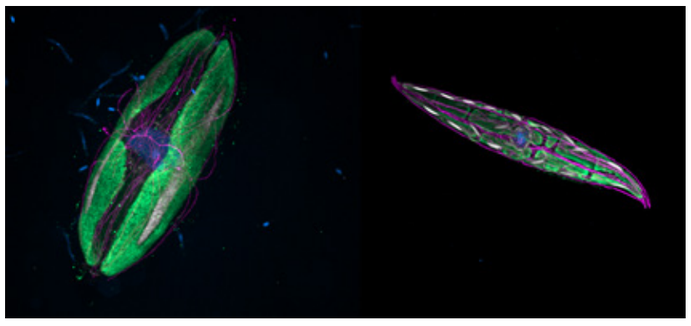


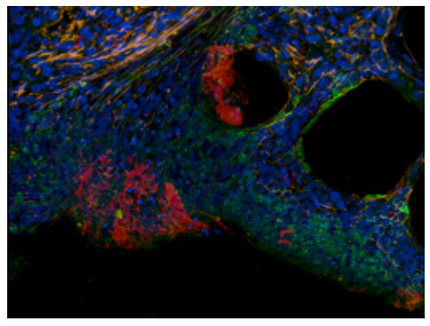












EMBL Imaging Centre WoW Award 2026. Credits: Serena Flori, Felix Mikus, Eliott Flaum, Kevin Moog, Manuel Fiegl, Dennis Reininger, Montserrat Coll Lladó, Anna Steyer, Silvia Zanna, Aissam Ikmi / EMBL; Yassin Harim, Giulia Di Muzio, Hsin-Jui Lu / DKFZ; Jürgen Mayer / Bruker Luxendo

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