

# EMBL Scientific Visitor Programme



[embl.org/vp](https://embl.org/vp)

European Molecular Biology Laboratory

# About EMBL

EMBL is Europe's leading laboratory for the life sciences. We are an intergovernmental organisation established in 1974 and are supported by over 20 member states.

EMBL performs fundamental research in molecular biology, studying the mechanisms of life. We offer services to the scientific community, train the next generation of scientists and strive to integrate the life sciences across Europe.

We are international, innovative and interdisciplinary. We are more than 1700 people, from over 80 countries, operating across six sites in Barcelona (Spain), Grenoble (France), Hamburg (Germany), Heidelberg (Germany), Hinxton (UK) and Rome (Italy).

Our scientists work in independent groups, and conduct research and offer services in all areas of molecular biology.

Our research drives the development of new technologies and methods in the life sciences. We work to transfer this knowledge for the benefit of society. Our professionals enjoy sharing their knowledge and expertise with visitors who are passionate about their chosen field.



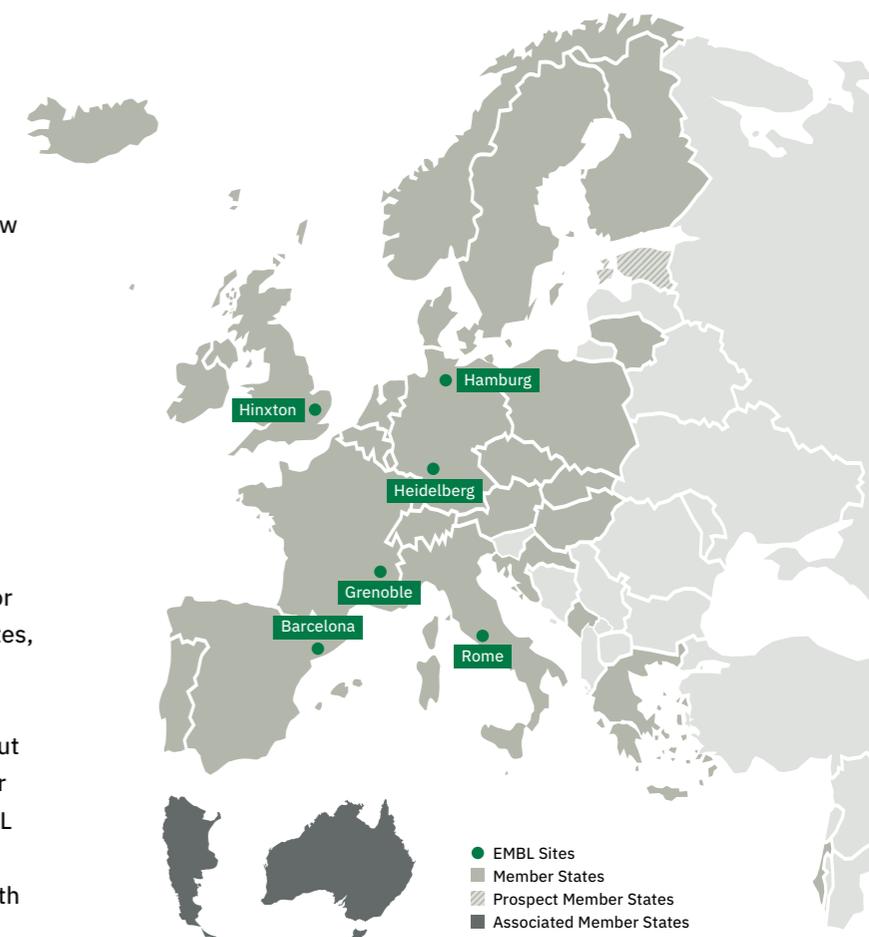
# About the Scientific Visitor Programme

The scientific visitor programme is embedded in the EMBL International Centre for Advanced Training (EICAT), which coordinates integrated training activities for scientists at different levels at all six EMBL sites. EICAT supports one of EMBL's core missions: the provision of advanced training.

EICAT manages EMBL's International PhD and Postdoctoral programmes and delivers its Course and Conference programme. Find out more at [www.embl.org](http://www.embl.org)

The scientific visitor programme provides opportunities for visiting scientists at all career levels – including students – to benefit from new technologies and state-of-the-art equipment in EMBL laboratories and Core Facilities, and to establish collaborations with laboratories and group leaders across all EMBL sites. Visitors also have access to our diverse programme of seminars and conferences during their stay.

Scientific visitors span a broad range, including trainees and master's students on internships to gain experience with world-class scientists or writing their master's thesis, as well as graduates, visiting predoctoral and postdoctoral fellows from external institutions, and staff scientists and Principal Investigators who wish to carry out a specific project or take a sabbatical from their home institute. They receive access to the EMBL campus and services along with logistical and organisational support, including assistance with finding accommodation, to make their stay at EMBL as productive and pleasant as possible.



*We welcome applications from candidates of all nationalities, and across disciplines. Diversity is an integral part and an established value of EMBL's culture.*



Jürgen Deka, Head of External Scientific Training, and Claudia Martin, who manages the scientific visitor programme.

## How to apply

If you would like to apply to become a scientific visitor at EMBL, please contact the relevant group leader or Head of Core Facility. This can be done at any time throughout the year. Information about our research groups is available on the EMBL website: [www.embl.org](http://www.embl.org). Acceptance to the scientific visitor programme depends on mutual interest, ongoing projects, and availability of places and resources in the lab of interest.

Early planning is required to find housing and for potential visa applications. Please check the visa regulations that apply to your nationality.

Your application letter should include

- a short statement about your research interests and why you are interested in the group you're contacting
- a CV highlighting your research experience
- contact details for a faculty member at your home institute who is prepared to support your candidature
- information about the funding situation for your visit

## Funding and accommodation

EMBL offers funding opportunities for scientific visitors to EMBL sites. EMBL Corporate Partnership Programme Fellowships are available for research visits through the Scientific Visitor Programme. Christian Boulin Fellowships are available for visitors from EMBL member states for use of the EMBL Core Facilities ([www.embl.de/services/core\\_facilities/boulin-fellowship](http://www.embl.de/services/core_facilities/boulin-fellowship)). For all funding opportunities, please see [www.embl.de/training/visitor-programme](http://www.embl.de/training/visitor-programme).

Funding may also be available from international funding bodies in the life sciences.

We support our visitors in finding appropriate accommodation for their stay – for example, in the guesthouses run by EMBL. Early planning increases the chances of finding accommodation near the Laboratory.

## Scientific visitor flash talks

Flash talk sessions for scientific visitors are held regularly, bringing together visitors at all six EMBL sites via videoconference. Participants have an opportunity to present and discuss their research, engage and build connections with researchers in various scientific disciplines, and share tools and ideas across a broad diversity of research areas.

*Being #EMBLcurious today about what visiting scientists at the other @embl sites are up to. Thanks everyone for the great flash talk session! Great insights and inspiration.*

Anja Ehrmann, Denmark  
Master's Student EMBL Hamburg



# Research Units



## EMBL BARCELONA, SPAIN

### Tissue Biology and Disease Modelling

An organ or a tissue is much more than just a collection of cells. It has genetic patterns, specific cell types, 3D structure and arrangement. Scientists at EMBL Barcelona trace the connections between these scales. They unveil how tissues develop, work, regenerate and heal. Thanks to the core facilities available at EMBL and at its local partner institute, the Centre for Genomic Regulation (CRG), researchers can observe, manipulate and model how changes in genes percolate through cells, tissues and organs, in health and disease.



## EMBL-EBI, HINXTON, UNITED KINGDOM

### Bioinformatics Research

Researchers at EMBL-EBI are transforming the life sciences. They are making sense of the vast, complex datasets produced using new and emerging technologies in molecular biology. Their work spans sequence analysis methods, multidimensional statistical analysis and data-driven biological discovery. At EMBL-EBI, researchers work closely with experimental scientists worldwide, increasingly tackling problems of direct significance to medicine and the environment.



## EMBL GRENOBLE, FRANCE

### Structural Biology

The 3D shape of a biological molecule can tell you a lot about what that molecule does – and how its biological activity might be altered, for example to treat a disease. Scientists at EMBL Grenoble determine 3D structures of human and viral proteins to understand how they interact with the nucleic acids DNA and RNA. To do so, they work closely with instrumentation developers and colleagues across the European Photon and Neutron (EPN) science campus to obtain the best possible data from synchrotron X-ray diffraction or cryo-electron microscopy experiments.



## EMBL HAMBURG, GERMANY

### Structural Biology

Proteins are key components of the cell's workforce. Alone or in groups, they can fine-tune genes, break down bacteria, or make muscles contract. At EMBL Hamburg, scientists unveil the structure of proteins that impact human health. Researchers in the unit use the state-of-the-art infrastructure for integrative structural biology available on the DESY campus. They investigate how molecules behave, and use the insights gained to develop new therapies.



## EMBL HEIDELBERG, GERMANY

### Cell Biology and Biophysics

From egg cells to neurons, cells take on very different shapes and sizes to fulfil their roles. Scientists in the Cell Biology and Biophysics Unit investigate the molecular and biophysical mechanisms that enable cells to function. In the Unit, biologists, chemists and physicists probe molecular networks and machines as well as mechanical forces and signalling. Experts in optics work with biologists to develop new imaging technologies to visualise life's molecular machinery at work.

### Developmental Biology

The breaking of symmetry, acquisition of cell fate, cell shape changes, collective cell behaviours, and the emergence of order and function through self-organisation are events whose timing and coordination are essential for organismal development and plasticity. Scientists in the Developmental Biology Unit seek to understand the fundamental principles that govern multicellular development, taking an interdisciplinary and systems perspective to track, decipher, predict and ultimately control such events in space and time.

### Directors' Research

How are gene expression, metabolism and disease connected? What are the epigenetic mechanisms involved in development and disease? How does the immune system work? The range of themes in Directors' Research reflects the interests of EMBL's and EMBO's leadership. Current research themes in the Unit include the roles of chromosome architecture and non-coding RNAs in gene regulation; the connections between gene expression and cell metabolism; and innate immune signalling and the mechanisms and forces that determine cell shape.

### Genome Biology

Many of our traits stem from the information in our genome. The Genome Biology Unit uses and develops cutting-edge methods to study how this information is regulated, processed and utilised across different molecular layers, including DNA, RNA, protein and metabolites, and how their alteration leads to disease. Within the Unit, biologists, computer scientists, mathematicians and engineers work together to understand how the genome gives rise to diverse phenotypes, by dissecting function at the level of individual molecules and more global interconnected networks. The Unit works closely with colleagues in the Genomics and Proteomics Core Facilities to dissect and model complex processes going from genotype to phenotype.

### Structural and Computational Biology

Life in the Structural and Computational Biology Unit is all about interactions: from the molecular networks inside cells to the ecological relationships between species, via the collaboration between experts from different fields. Scientists in the Unit cover everything from crystallography to cryo-electron microscopy and from metabolomics to microbiomes. They support colleagues throughout EMBL in the use of state-of-the-art structural biology instruments. The unit also serves as a hub for bioinformatics activities across EMBL Heidelberg.



## EMBL ROME, ITALY

### Epigenetics and Neurobiology

How do we perceive the world around us? Can our surroundings influence our genes, and our children's genes? At EMBL Rome, scientists explore the connections between genome, environment and neural function. Traditionally, neuroscientists and epigeneticists have moved in different circles. Here, they come together and draw on each other's insights, approaches and experience.

# Testimonials



*My stay at EMBL has been a pleasant and knowledge-filled experience. The diversity of expertise in imaging techniques opened my eyes to the depth of what has been achieved in the retrieval of information from structures ranging in scale from nanometres to micrometres. The Global BioImaging job shadowing program, of which EMBL is a host, has created a platform for the bioimaging community to exchange ideas and culture.*

Divya Appaji Gowda, India  
Visiting Technical Expert, EMBL Heidelberg



*My stay at EMBL has allowed me to learn from, observe, and work with talented scientists working at the cutting edge of biological research. After six very enjoyable months, benefitting from the example and mentorship of my supervisor and team members, I will look back on my visit as a major step forward in my career, whereby I had the opportunity to explore new fields, attend myriad symposia and discuss ideas with passionate colleagues. After this experience, I am even more driven to pursue research.*

Andrew Ó hEachteirn, Ireland  
Master's Graduate, EMBL Heidelberg



*I had a fantastic stay at EMBL. I loved having the independence of my own project and developing my wet lab skills. I was exposed to new scientific ideas on a daily basis and attended seminars from world leaders in the field. Everyone at EMBL Grenoble was friendly and approachable, both professionally and socially, and helped to make it a year I will never forget!*

Francesca Chandler, UK  
Trainee, EMBL Grenoble



*My visit to the chemistry lab was a valuable experience in my career. The knowledge I was exposed to sparked a yearning to expand my own knowledge.*

Damilola Aderohunmu, Nigeria  
Visiting Predoctoral Fellow, EMBL Heidelberg



*I couldn't have chosen a better place for my sabbatical; superb science and a wonderfully open and friendly atmosphere!*

Bas van Steensel, Netherlands  
Visiting Group Leader, EMBL Heidelberg



*My 2-month visit to EMBL exceeded my expectations. Although I was aware of the outstanding research capabilities and the state-of-the-art facilities at EMBL, the great working atmosphere really surprised me. I had many opportunities for socialising. I enjoyed immensely the friendly and supportive atmosphere and the kindness of the people hosting me. During my time there, I never had to worry about anything other than the project I was involved with, which was a real luxury for me. I hope Argentina maintains the status of associate member of EMBL for many more years. This is a great opportunity to get access to up-to-date technology.*

Juan Agustín Cueto, Argentina  
Visiting Researcher, EMBL Heidelberg



*EMBL is a great place for scientific learning. Everyone is very nice and helpful. The international environment and all the scientific resources made my 5-month stay at EMBL Hamburg unforgettable. I learned a lot and I can't wait to go back.*

Inês Justo, Portugal  
Trainee, EMBL Hamburg



*Performing my master's thesis at EMBL was a great choice – you work with up-to-date technologies and top scientists on a daily basis. As EMBL is highly interdisciplinary, you can find experts in computer science, physics, or chemistry right next door, and benefit from their opinions and perspectives on aspects of your project. The different research groups work closely together on a regular basis, which leads to interesting collaborative projects. Furthermore, the groups are typically quite small, which leads to good supervision and a good atmosphere within the lab.*

Maurice Kahnwald, Germany  
Master's Student, EMBL Heidelberg

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