EMBL Visitor Programme

Want to boost your scientific career? Come to EMBL.

www.embl.org/vp
EMBL Visitor Programme

Application and admission – How to apply?

To apply to become a visitor at EMBL please contact the Group Leader(s) and outstation of your choice directly. Acceptance depends on the availability of places, ongoing projects, and manpower in the respective lab. There are no specific deadlines but early planning facilitates administration, such as housing or visa applications.

Your application letter should include:

- a short CV highlighting your research experience so far (if any)
- a short statement about your research interests and why you are interested in the chosen group
- information about the purpose and intended duration of your internship
- indication of when you would like to join and whether there is flexibility in timing
- contact details of a faculty member at your home university who can provide a short supporting letter for your candidature.

More than 400 individual visitors are annually enrolled in the Visitor Programme

EMBL is one of the most renowned scientific laboratories in Europe. Promoting scientific excellence and delivering services to the scientific community are amongst its principal goals, reflected not least through its extensive Visitor and Scholar Programme.

The Visitor Programme enables scientists and students from all over the world to benefit from new technologies and modern equipment at the five EMBL sites. Visitors come to EMBL for the purpose of collaborating with EMBL staff or pursuing their own research, taking advantage of the unique EMBL environment. Scientists also visit to receive advanced training in specific areas, or to participate in long-term collaborations.

The Visitor and Scholar Programme is part of the EMBL International Centre for Advanced Training (EICAT) and provides visiting scientists with logistical and organisational support, to make their stay at EMBL a pleasant and productive experience.
Undergraduate visitors/trainees
Undergraduate students from universities or professional schools receiving scientific, technical or administrative training. Trainees must be at least 18 years old to be eligible for training at EMBL. The maximum total training period at EMBL, including any extensions, may not exceed one year.

Undergraduate visitors/diploma students
Undergraduate students from universities or professional schools pursuing practical work for their diploma / masters thesis (or equivalent) at EMBL. The maximum total training period at EMBL, including any extensions, may not exceed one year.

Visiting predoctoral fellow
PhD students who are not members of the EMBL International PhD Programme and who are registered with an external institution for their PhD. These students generally wish to benefit from EMBL technologies and methods for specific parts of their thesis. The maximum total training period at EMBL, including any extensions, must be less than half of their entire PhD period.

Visiting scientists
Scientists at the postgraduate level, including visiting postdoctoral fellows who are integrated in the work of a research group for the duration of the visit in order to perform joint experiments, work on a specific project or discuss possible collaborations with members of the EMBL faculty. They may also receive special training during their stay or evaluate new research potential for their own institutions.

Visiting scholars
Senior scientists and sabbatical visitors who wish to be associated with a specific group, unit or the laboratory as a whole, for a period of study, reflection, writing and exposure to ongoing research.
EMBL Visitor Programme

Funding

In general EMBL cannot offer financial support to its visitors. Applicants should make sure that their travel and accommodation expenses as well as possible bench fees are covered before their visit begins. Possible funding sources are grants or fellowships from the EU, national governments or research institutions.

Students may receive payment during their internship, e.g. from grants available to the respective Group Leader. Payment therefore remains at the discretion of the Group Leader. Details will be discussed together with the Group Leader of choice.

EMBO Short Term Fellowships may be applied for to cover a stay at EMBL under the standard EMBO conditions. Visit www.embo.org for more details.

Accommodation

The ISG Hotel in Heidelberg–Boxberg welcomes you. You can choose between single and double rooms or appartments in the Guesthouse – walking distance from EMBL. EMBL runs a free shuttle in the mornings and in the evenings.

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Im Eichwald 19
69126 Heidelberg
Tel: +49 6221 3861-0
www.isg-hotel.de
Interdisciplinary research at EMBL

EMBL-EBI, Hinxton, UK

Bioinformatics

The EBI is probably best known worldwide for its provision of biological information and bioinformatics services. However, about 20% of the institute is devoted to investigator-led research using computational approaches to unravel the secrets of life. Although we are united in using computers, the biological questions we address and the algorithms we develop and use are very diverse. We explore biological questions spanning genome evolution, transcriptional regulation and systems modelling of basic biological processes and disease.

Research at EBI is carried out both in groups devoted solely to research and in some of the larger service teams that have associated research activities. All researchers have computational approaches as their major focus, but most also collaborate closely with experimentalists and often generate experimental data themselves. Our research is highly collaborative within EMBL as well as with many external colleagues. We are highly interdisciplinary; our faculty comprises scientists who originally trained in biology, physics, chemistry, engineering, medicine or mathematics. We develop novel algorithms and protocols for handling data, such as checking the quality of the data; interpret data and integrate data to generate new knowledge. We use this information to develop novel hypotheses about the basic molecular processes of life.

EMBL Heidelberg, Germany

Cell Biology and Biophysics

In this Unit, physicists and chemists work closely with biologists to elucidate the fundamental rules that govern dynamic cell organisation and function, while developing new instruments and technologies in order to reach this ambitious goal. Novel developments in microscopy, computer simulations and chemical biology-based probes are a particular strength. New correlative light/electron and superresolution imaging methods, as well as mechanistic biochemistry allow us to directly interface between cell and structural biology to understand molecular mechanisms. On the other hand, advances in live microscopy methods, now allow us to carry out cell biology in developing organisms to understand how cell organisation and collective cell behaviour leads to organ formation.
Developmental Biology

EMBL Heidelberg, Germany

Anne Ephrussi
Head of Unit

The development of living organisms requires precise coordination of all basic cellular processes, in space and time. Groups in the Developmental Biology Unit seek to elucidate the principles, mechanisms and dynamics of fundamental developmental events. Using animal and plant models, research in the Unit integrates numerous complementary approaches to understand how cellular and morphological processes are coordinated and evolve to shape and maintain living organisms in their environment. Research includes understanding the regulatory mechanisms of developmental cellular processes; studying simple marine organisms to understand the evolution of our central nervous system; elucidating the temporal organisation of embryonic development; investigating how the machinery that controls trafficking within cells is reorganised as tissue forms; understanding patterning in plant development; and studying both normal development and its deviations in diseases.

Genome Biology

EMBL Heidelberg, Germany

Eileen Furlong
Head of Unit

The genome encodes the genetic blueprint that coordinates all cellular processes, which ultimately give rise to phenotype. The Genome Biology Unit takes a systems biology approach to unravel these complex processes at all scales, integrating wet-lab and computational approaches.

A notable strength of the Unit is its ability to address questions at different scales, ranging from detailed mechanistic studies (using biochemistry, genetics, microfluidics and chemistry) to genome-wide studies (using functional genomic, proteomic and computational approaches), often with developing new enabling technologies. The synergy between computational and wet-lab groups provides a very interactive and collaborative environment to yield unprecedented insights into how genetic information is ‘read’ and mediates phenotype through molecular networks.

Mouse Biology

EMBL Monterotondo, Italy

Philip Avner
Head of EMBL Monterotondo

Dynamic partnerships and exchanges with other international academic research and clinical centres, and participation in multiple EU-wide mouse research and informatics initiatives, are integral parts of EMBL Monterotondo’s discovery process into genetics and genomics, cell biology and pathology. The continued refinement of genetic and epigenetic perturbations of cellular and physiological functions through the use of conditional and other increasingly finely engineered mouse mutations at EMBL Monterotondo is generating ever more accurate models of human disease and multigenic disorders. Research groups use these powerful tools to investigate wide-ranging aspects of mammalian biology, including gene expression, development and differentiation, cancer and regeneration, behaviour and sensory perception. A state-of-the-art animal facility provides a full range of mouse transgenic and gene knock-out production, embryo rederivation and cryopreservation services, and a fully phenotyping suite.
Structural and computational biology research at EMBL aims to bridge the world of small biological entities (proteins, nucleic acids) to the world of larger ones (cells and organisms). The Heidelberg Structural and Computational Biology Unit (SCB) pursues an ambitious research programme with a strong basis in integrated structural systems biology and a far-reaching computational component that bridges various areas of biology. A wide spectrum of expertise allows the Unit to tackle problems at different ranges of spatial resolution, connecting atomic structures and dynamic information obtained by X-ray crystallography and NMR with medium-range resolution from single particle electron microscopy, and cellular imaging obtained by electron tomography and light microscopy. Dedicated large-scale biochemistry, proteomics, chemical biology, biophysics, and cell biology approaches complement the structural biology activities and, in conjunction with a wide range of innovative computational biology activities, are integrated into a comprehensive description of biological function.

EMBL Grenoble has a very active research programme in structural biology of cellular processes (for example, transcription, translation, RNA quality control, viral replication, innate immunity, small non-coding RNAs). Research is facilitated by the wide range of techniques (molecular biology, biochemistry, cryo-electron microscopy and tomography, high-throughput expression and crystallisation robotics, neutron scattering, NMR, X-ray crystallography and small angle X-ray scattering (SAXS)) available through the Partnership for Structural Biology which links the European Synchrotron Radiation Facility (ESRF), Institut Laue Langevin (ILL) and local French structural biology institutes. The outstation also develops new technologies for high-throughput crystallisation and makes significant contributions to the instrumentation and MX and SAXS services at the ESRF, and is part of an international research unit focused on virus-host cell Interactions with the city’s University Joseph Fourier and the CNRS as partners.

Activities at EMBL Hamburg focus on state-of-the-art structural biology methods using synchrotron radiation, combining cutting-edge technology with an ambitious research programme for structures of multifunctional proteins and protein complexes of biomedical relevance. Present research interests include cell surface receptors, protein assemblies in muscle cells, protein kinases, protein translocation into peroxisomes, and several projects relating to tuberculosis. Common to all projects is to make optimum use of on-site high-brilliance synchrotron radiation and to explore novel opportunities of the X-ray Free Electron Laser. Beyond the tools in structural biology that are available on-site, EMBL Hamburg groups are engaged in many interdisciplinary collaborations with colleagues from other EMBL units. Hamburg also has a well-established record for the development of novel, innovative technologies in structural biology.
EMBL EICAT
EMBL International Centre for Advanced Training

EICAT, the EMBL International Centre for Advanced Training, coordinates integrated training activities for scientists at different levels at all five EMBL sites. EICAT is the landmark representing one of the Laboratory’s core missions: the provision of advanced training.

EICAT Mission
EICAT fosters information exchange between the respective EMBL training branches. Among these are the International PhD Programme, the Postdoctoral Programme and the Collaborative Training Programme. It also includes the highly successful Courses and Conferences Programme and collaborates with the Science and Society Programme. EICAT hosts the European Learning Laboratory for the Life Sciences (ELLS), an education facility for high school teachers, whose mission is to bridge the gap between research and classrooms.

The Scholars’ Programme and the Visiting Scientists’ Programme offer principal investigators as well as postdocs and graduate students, respectively, from other institutions the opportunity to associate with a specific group or unit of the laboratory for a period of study, reflection, writing, exposure to ongoing research, etc.

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