About EMBL

The European Molecular Biology Laboratory is a basic research institute funded by public research monies from 20 member states (Austria, Belgium, Croatia, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Israel, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom) and an associate member state, Australia. Research at EMBL is conducted by approximately 85 independent groups covering the spectrum of molecular biology.

EMBL has five units: the main laboratory in Heidelberg, and outstations in Hinxton (the European Bioinformatics Institute, EMBL-EBI), Grenoble, Hamburg, and Monterotondo near Rome. The cornerstones of EMBL's mission are: to perform basic research in molecular biology; to train scientists, students and visitors at all levels; to offer vital services to scientists in the member states; to develop new instruments and methods in the life sciences; to actively engage in technology transfer activities. Around 190 students are enrolled in EMBL's International PhD programme. Additionally, the Laboratory offers a platform for dialogue with the general public through various science communication activities such as lecture series, visitor programmes and the dissemination of scientific achievements.

Located on the same campus as the European Synchtron Radiation Facility (ESRF), and operating several beamlines in collaboration with ESRF, EMBL Grenoble is dedicated to research and services for structural biology. www.embl.fr

About UVHCI

The 'Unit of Virus Host Cell Interactions (UVHCI) UMI 3265 UJF-EMBL-CNRS' was created in January 2007 to develop the collaboration between the University Joseph Fourier, EMBL Grenoble and the French National Centre for Scientific Research (CNRS). The UVHCI is located on the 'Polygone Scientifique' in Grenoble, and its objective is to pursue research in structural and molecular biology to international standards, focused, but not exclusively, on virus-host cell interactions and the development of associated techniques. www.uvhci.fr

About IBS

The Institut de Biologie Structurale Jean-Pierre Ebel (IBS) is a French research institute jointly operated by the Atomic Energy Commission (CEA), the CNRS, and the University Joseph Fourier in Grenoble. It hosts 15 independent groups (240 staff) that perform interdisciplinary research at the interface of biology, physics and chemistry. In 2002 the IBS, EMBL, ESRF and Institut Laue Langevin (ILL) formed the Partnership for Structural Biology, whose primary objective is to study the structure and function of proteins and other biomolecules, particularly those involved in human disease. www.ibs.fr

About PSB

The Partnership for Structural Biology (PSB) was established by a Memorandum of Understanding in 2002 by EMBL, the ESRF, the ILL and the IBS to provide a unique environment for state-of-the-art integrated structural biology. The PSB comprises some 300 active scientists (staff scientists, students, postdocs and technicians) from EMBL Grenoble, the ESRF Structural Biology group, the ILL Life Sciences group, the UVHCI and the IBS. www.psb-grenoble.eu

Sonia Furtado Neves, EMBL Press Officer, Tel: +49 6221 387 8263, sonia.furtado@embl.de

European Molecular Biology Laboratory
Europäisches Laboratorium für Molekularbiologie
Laboratoire Européen de Biologie Moléculaire

Who to talk to?

EUSJA visit to GIANT – EMBL and PSB
23 October 2013

Coffee with the scientists | 16:30

Choose your table during lunch. Find out more about the hosts and their research inside.

Table 1

Pneumo HD: using fluorescent light to investigate a disease-causing bacterium

Virgile Adam (IBS)
Cécile Morlot (IBS)

Table 2

Beautiful insights: how can microscopy tell us a molecule's job and help develop drugs?

Leandro Estrozi (IBS)
Irina Gutsche (UVHCI)

Table 3

Meet the makers: creating technology to produce and analyse protein crystals

José Antonio Márquez (EMBL)
Andrew McCarthy (EMBL)

Table 4

Evil transformers: how does a protein turn healthy cells into tumours?

Saadi Khochbin (UJF)
Daniel Panne (EMBL)

Table 1

Virgile Adam

- 1977: Born in Paris, France
- 2005–9: PhD in Biophysics (ESRF), University J. Fourier, Grenoble
- 2009–11: Postdoc, K.U.Leuven, Belgium
- 2011: CNRS researcher, IBS, Grenoble

I design new fluorescent proteins for super-resolution microscopy, to watch events unfold inside living cells in unprecedented detail.

Cécile Morlot

- 2000: Engineer degree in Biochemistry, INSA Toulouse, France
- 2003: PhD in Microbiology (IBS), University J. Fourier, Grenoble
- 2004: Postdoc, EMBL Grenoble
- 2007: Postdoc, Harvard Medical School, USA
- 2010: CNRS researcher, IBS, Grenoble

I study how pneumococcus, a bacterium which is becoming more and more resistant to antibiotics, grows and reproduces.

Table 2

Leandro Estrozi

- 1977: Born in Ribeirão Preto, Brazil
- 2003: PhD in Computational Physics, University of São Paulo, Brazil
- 2004: Postdoc, LVMS-CNRS, France
- 2007: Postdoc, EMBL Grenoble
- 2011: CNRS researcher, IBS, Grenoble

I develop image processing methods to transform low-contrast 2D images into beautiful, high-quality 3D models that can provide vital clues to understanding how life works.

Irina Gutsche

- 1971: Born in Academy Town, Russia
- 1997: PhD in Biophysics, University Paris XI Orsay, France
- 1998: Postdoc, Max-Planck Institute for Biochemistry, Martinsried, Germany
- 2006: Senior scientist, UVHCI, Grenoble
- 2013: ANR grant and GRAL grant

I use 3D electron microscopy and image analysis to address two different issues: how infectious bacteria survive the acid in our stomach, and how Rhabdoviruses self-organise into a form that not only looks like a bullet but can be just as harmful.

Table 3

José Antonio Márquez

- 1968: Born in Valencia, Spain
- 1997: PhD in Biology/Biochemistry, University of Valencia, Spain
- 1998: Postdoc, EMBL Heidelberg
- 2005: Team Leader, EMBL Grenoble
- 2012: Head of Crystallisation Facility, EMBL Grenoble

I study how automation and robotics can help us understand how crops tolerate drought, at the molecular level.

Andrew McCarthy

- 1970: Born in Galway, Ireland
- 1997: PhD in Chemistry, National University of Ireland, Galway, Ireland
- 1996: Research assistant, Utrecht University, The Netherlands
- 1998: Postdoc, University of Auckland, New Zealand
- 2002: Staff scientist, EMBL Grenoble

My work focuses on designing, building and operating hardware that uses X-rays to study the 3D structure of molecules. I am particularly interested in proteins involved in neuron development.

Table 4

Saadi Khochbin

- 1990: PhD in Biology, Grenoble University, France
- 1990: Fogarty fellowship, NIH, USA
- 1992: Team Leader, Grenoble CEA, CENG
- 2002: Director of INSERM Research Unit 309, Grenoble
- 2007: Department Chair, INSERM Research Center, U823, Grenoble

My lab discovered that in a very aggressive form of cancer, specific proteins are hijacked to reprogramme the tumour cells' genome, and we have now learned how to free them.

Daniel Panne

- 1969: Born in Freiburg, Germany
- 1999: PhD in Biophysics, University of Basel, Switzerland
- 2000: EMBO fellow, Harvard University, USA
- 2007: Group leader, EMBL Grenoble

My group studies the workings of central pieces of the cellular machinery that physically controls genes in healthy cells and cancer cells, with a view to helping develop new drugs.

One-to-one interviews | 18:15–18:30

As well as the table hosts, the following scientists will also be available for interviews.

Elisa Cora

- 1985: Born in Italy
- 2009: Degree, Scuola Superior, University of Udine, Italy
- 2010: PhD from CNRS, EMBL Grenoble (Pillai)

The focus of my work is on piRNAs, small RNAs that control the stability of the genetic information contained in our sperm and egg cells.

Stephen Cusack

- 1952: Born in London, UK
- 1973: BA Physics and Theoretical Physics, University of Cambridge
- 1976: PhD in Theoretical Physics, Imperial College, London
- 1989: Head of EMBL Grenoble
- 2012: Awarded Senior ERC Grant

I am interested in how the influenza virus copies its genome inside our cells, and in the cells' first responses to viral infection.

Boris Eliseev

- 1983: Born in Perm, Russia
- 2011: PhD in Molecular Biology, Engelhardt Insitute of Molecular Biology, Russia
- 2012: Postdoc, EMBL Grenoble (Schaffitzel)

I study the structure of large protein complexes that eliminate non-sense RNA – which can cause genetic disorders and cancer – from our cells.

Jonathan Gaucher

- 1982: Born in Lyon, France
- 2011: PhD in Developmental Biology, University of Grenoble
- 2012: Postdoc, EMBL Grenoble (Panne)

All your cells carry the same DNA, but your body has more than 200 different cell types, from neurons to muscles. I study a protein called p300, which is involved in creating those differences and has been linked to lung and breast cancers.

Jan Kadlec

- 1976: Born in Prague, Czech Republic
- 2005: PhD in Structural Biology, EMBL Grenoble
- 2005: Postdoc, University of Oxford, UK
- 2009: Staff Scientist, EMBL Grenoble (Cusack)

I study proteins that help control the structure of genetic material, which in turn determines which genes are active in each cell, making neurons different from skin cells, for instance.

Hélène Malet

- 1982: Born in Gap, Hautes-Alpes, France
- 2008: PhD in Structural Biology, University of Marseille, France
- 2008–11: Postdoc, Birkbeck College, University of London, UK
- 2011: Postdoc, EMBL Grenoble (Cusack)

I study proteins involved in multiplying viruses' genomes, to help develop drugs, particularly for influenza and bunyaviruses (like the one that causes Crimean-Congo haemorrhagic fever).

Erika Pellegrini

- 1985: Born in Bergamo, Italy
- 2009: Masters in Biotechnology, Universitá Vita-Salute San Raffaele, Milan, Italy
- 2013: PhD in Structural Biology, ESRF, Grenoble (in collaboration with Sheffield University, UK)
- 2013: Postdoc, EMBL Grenoble (Cusack)

I study a protein that is involved in inflammatory diseases such as Crohn's disease, colitis and asthma, and is a potential target for new drugs to fight those conditions.

Juan Reguera Vidaechea

- 1976: Born in Segovia, Spain
- 2004: PhD in Biochemistry and Molecular Biology, Universidad Autónoma de Madrid, Spain
- 2005: Postdoc, National Center of Biotechnology, Madrid, Spain
- 2009: Longterm EMBO Fellowship, EMBL Grenoble
- 2013: Research Scientist, EMBL Grenoble (Cusack)

We have found molecules that could help design broad spectrum drugs to counter a variety of different viruses, including ones that cause deadly fevers, by blocking similar proteins that all those viruses use to infect mammals.

Pietro Spinelli

- 1985: Born in Milan, Italy
- 2011: Masters in Industrial Biotechnology at University of Milano Bicocca, Italy
- 2012: PhD fellow, EMBL Grenoble (Pillai)

I study a group of specialised small RNA molecules that stop DNA sequences called transposons from jumping around the genome and causing disruptions that can lead to cancer, infertility and other problems.

Simon Trowitzsch

- 1977: Born in Northeim, Germany
- 2008: PhD in Biology, University of Goettingen/Max-Planck Institute for Biophysical Chemistry, Germany
- 2010: Postdoc, EMBL Grenoble (Berger)

I helped to develop MultiBac, a system for producing multiprotein complexes – groups of proteins that work together to carry out important tasks in our cells – that is now used in more than 350 labs worldwide.