

SPOTLIGHT ON AUSTRIA

Magnet in middle Europe

Flexible funding, collaborative colleagues, excellent infrastructure and a great lifestyle are attracting researchers from around the world to Austria.

"It had fantastic infrastructure: a state-of-the-art animal facility, a confocal microscopy suite and a whole floor to fill with infection biology."

Stefan Schild, University of Graz

GAIA NOVARINO embodies today's internationally mobile scientist. Originally from Italy, the molecular biologist moved to Germany for her first post-doc in 2005, then to the US for a second position. In 2012, when she started making moves to set up her own laboratory, she had offers from institutes in Europe and the US. "I wanted a place that did excellent science, but was small enough to integrate junior faculty," she says.

The Institute of Science and Technology Austria (IST Austria) in Klosterneuburg near Vienna, stood out among her options because it offered a more protective environment than some larger institutes, as well as having a reputation for high-standard science and strength in interdisciplinary work. After just two months at the institute, Novarino feels that she made the right choice, and that there are few places in Europe that could compete in terms of research excellence and collaborative atmosphere. Moreover, she's been pleasantly surprised by the support services. "The facility management, the administration staff, they're all so competent. I've never seen anything like it."

Fellow scientist, Gašper Tkačik,

a biophysicist at IST Austria, is equally enthusiastic. A Slovenian national, Tkačik did his doctoral studies and post-doc in the US. When he and his wife were looking to move back to Europe, IST Austria was a "mystery" to him, but the institute's offer had more allure than one from the Max Planck Institute in Germany. "I knew I would have to leave the Max Planck Institute after five years, whereas IST Austria has an attractive career track with tenure evaluation after five–seven years," he says. "It also offered a very international environment, something I'd got used to in the States and really liked."

Two-body solutions

Tkačik says he and his wife enjoy the high standard of living in Austria. "Compared to say Paris or London, living in a nice apartment in central Vienna is possible on an academic salary," he says.

The "two-body problem" of finding a city where two partners can live and work happily is a common theme among researchers. Developmental biologist Luisa Cochella, originally from Argentina, met her Dutch partner while doing a post-doc in the US. Vienna's cluster of research institutes made the city an obvious choice for them when they decided to move to Europe. Cochella now heads a lab at the Research Institute of Molecular Pathology (IMP), part of the Campus Vienna Biocenter (VBC) group of institutes, and her partner has a lab at the Max F. Perutz Laboratories (MFPL). The IMP is primarily funded by the pharmaceutical company Boehringer Ingelheim, and she says the conditions this provides for setting up a lab would be "very difficult to find anywhere else".

Alongside this core support, IMP researchers are encouraged to apply

for external funding, and in this the institute performs extremely well — scientists at the IMP and its partner institute the Institute of Molecular Biology (IMBA) were awarded all seven of the European Research Council (ERC) grants for which they applied in 2013. The Vienna Biocenter incorporates the IMP, IMBA, MFPL, the Gregor Mendel Institute (GMI) and several biotech companies, including Hookipa (see box). The campus also has a highly competitive and international PhD Programme, and Cochella says that she and her colleagues are very happy with the quality of students they get through the programme.

International education

Another education programme attracting international interest is the Paracelsus Medical University (PMU) in Salzburg — a private medical school founded in 2002. PMU offers a five-year curriculum that is shorter than most European medical courses. Much of the curriculum development and staff training is done in close collaboration with the US Mayo Medical School and, to improve their readiness to work internationally, PMU graduates must pass the USMLE Step 1 exam, the first part of the US entrance exam for medical practitioners.

PMU is also the site of a large new research institute for spinal-cord injury and tissue-regeneration research, primarily funded by a €70 million, 12-year philanthropic investment from Dietrich Mateschitz, the CEO of energy drinks company Red Bull — the third-largest donation from an individual to a European university. Eva Rohde, who specialises in transfusion medicine, was one of the researchers involved in the development of the project. "The





"Living in a nice apartment in central Vienna is possible on an academic salary."
Gašper Tkačik, IST Austria.

investor [Mateschitz] immediately understood that you can't expect that simply investing a large amount of money can solve complex problems like spinal-cord injury, but that if you have a broad research base, you may eventually make an impact," says Rohde. In addition to basic-research laboratories, the new building will include a Good Manufacturing Practice (GMP) facility. "Our aim is to coordinate basic, pre-clinical and translational research and to bring that to actual care of patients."

Regional investment

PMU is one of several examples of research centres outside the main hub of Vienna. Infection biologist Stefan Schild, a German, and his wife, also a scientist, chose Graz when they moved from Boston back to Europe to be closer to their families. Schild was lured by a €40 million new molecular biology facility built at the University of Graz in 2007. "It had fantastic infrastructure: a state-of-the-art animal facility, a confocal microscopy suite and a whole floor for infection biology research," he says.

Schild was also pleased with the openness of colleagues when he arrived in Graz. There are three universities in the city, with several joint research platforms (NAWI-Graz and BioTechMed-Graz) and state and federal funding to fund interactions. "It was very easy for me to establish collaborations and feel comfortable here," he says. "Other PIs actually approached me when

I arrived, which I found deeply impressive. I'd never experienced that in the US or Germany."

Graz, (population 265,000) is dwarfed by Vienna's 1.7 million, but Schild doesn't feel that the smaller city is left out. "The government invests a lot in centres outside Vienna, and funding is proportionally well allocated."

He's more concerned that government financial constraints have stopped the Austrian Science Fund (FWF) from issuing a call for applications for Special Research Programs (SFB) and Doctoral Programs (DK) in 2014. "These programs have built a very communicative research network, and they were instrumental in closing the gap between research in Austria compared to, say, Germany and Sweden over the past decades," he says. "There's a concern that cutting down funding for these collaborative networks will make Austria lose ground again."

By scientists for scientists

For some researchers, Austria offers even more tangible attractions. "My research is very instrument intensive," says Ulrike Diebold, a physicist at the Technical University of Vienna. Diebold did her undergraduate and PhD studies in Austria, before working in the US for 20 years. When she was looking for a professional change, she was attracted by Austria's continuity. "There is better technical and experimental infrastructure here, and excellent engineering and workshop support."

Hookipa, a biotech success story

"The opposite of advanced" is how Katherine Cohen, CEO of Hookipa Biotech AG in Vienna, describes the biotech industry in Austria when she moved there in 1992. "There were very few opportunities for young scientists — it was either basic research or just a handful of large companies, and there was no clear path from academia to industry." Now, she says, the story is different.

Raised in China, Cohen moved to the US for her doctoral and post-doctoral studies. In the early 1990s, she and her Austrian husband decided to move to Vienna, where she worked as a consultant for international organisations like the Organisation for Economic Co-operation and Development (OECD) and the United Nations until 1998, when her business acumen was recognized by the scientific founders of Intercell AG, a spin-off company from the Vienna University and the IMP in Vienna. Cohen joined a team of 10 staff at Intercell in 1999, which expanded to more than 500 during her 12 years with the company. "It was a golden decade with tremendous growth for a small biotech company in a place like Vienna," she says. Clinching deals with pharmaceutical heavyweights Merck, Novartis, Wyeth and others, Cohen and the management team brought more than \$400 million worth of investments to Intercell.

In 2011, she joined the Swiss Nobel Prize winner Rolf Zinkernagel and fellow developers of the Vaxwave technology — a viral-vector platform for vaccine development — and together they founded Hookipa. "Vaxwave was just an idea," she says, "but I'd seen many vaccine technologies, and I was excited by this one." Within four months, Cohen had raised €7 million from two venture-capitalist investors, which she used for recruitment and to build laboratories.

By 2011, Austria was a different place, and it was easy to find highly qualified staff. "We have a dense presence of vaccine-related industry here now," she says, "so all I have to do is infect people with enthusiasm for the technology." Hookipa's second round of investment deals, totalling €20 million, was settled in November 2013, and they have received an Austrian government grant for €5 million.



© ANDI BRUCKNER

Diebold cites the fairness and flexibility of Austrian research funding as another incentive. "It's easier to be more creative here," she says, "because the funding agencies don't overburden researchers with bureaucracy, and once money is allocated it's up to the awardee how to spend it."

She says that knowing she could apply to the ERC was another drawcard to move back from the US. "I've served on many funding-agency selection panels, and the ERC is by far the best I've worked on. The selection process is done by scientists for scientists, and — in my opinion — no funding agency in the US offers as much long-term support and freedom as the ERC does."

The benefits of Austria's funding schemes are also recognized by fellow physicist Francesca Ferlaino, director of the research centre Physics-Innsbruck at the University of Innsbruck. "The Austrian funding systems have turned being small into an opportunity to be more flexible," she says. Ferlaino, a quantum optics researcher, has benefitted from that flexibility. She was recently offered a prestigious Humboldt professorship from the University of Ulm in Germany, but Innsbruck promptly responded by creating a new, matched position for her, should she wish to stay in Austria. "It shows that people here really band together to achieve a common goal," she says. ■ *Nature editorial staff have no responsibility for content*



The Vienna Science and Technology Fund WWTF
has launched the
Vienna Research Groups
for Young Investigators Call 2014

This call is for up to three positions as part of the WWTF's Life Sciences funding program. The WWTF in total grants up to 1.6 Mio. € per research group for six to eight years. Further details please find at the homepage of the WWTF (www.wwtf.at).

Prerequisite is that the positions must be hosted by a Vienna-based research institution. The Center for Pathophysiology, Infectiology and Immunology (www.meduniwien.ac.at/cepii), the largest research center of the Medical University of Vienna, is keen on to host and support outstanding candidates by an enthusiastic scientific staff and cutting-edge infrastructure.

The areas of the supported projects are: Immunology, Allergy, Infectious Diseases, Vaccinology.

Interested candidates should send their CV, list of publications including citations and impact factor, brief career summary as well as the research proposal as single PDF to Hannes Stockinger (cepii@meduniwien.ac.at). The deadline is May 23, 2014. The Board of full professors of the Center will review the applications and encourage the short-listed applicants to apply for one of the WWTF positions. Full proposal have to be submitted by July 24, 2014.

W248087R

The 14th International congress on amino acids, peptides and proteins
to be held in Vienna, Austria, August 3-7th, 2015

addresses all chemistry and biology of these molecules and is this time also housing a whole day session on **brain receptors in Alzheimer's disease** and a whole session on **proteins linked to cognitive function**.

This is of utmost importance because receptors are serving as pharmacological targets and agonists as well as antagonists are readily available. A key paper addressing this issue is:

Changes of several brain receptor complexes in the cerebral cortex of patients with Alzheimer disease: probable new potential pharmaceutical targets.
(<http://www.ncbi.nlm.nih.gov/pubmed/24292102>)

Keihan Falsafi S, Roßner S, Ghafari M, Groessl M, Morawski M, Gerner C, Lubec G.

Amino Acids. 2014 Jan;46(1):223-33. doi: 10.1007/s00726-013-1623-9. Epub 2013 Nov 29, which is freely available by open access.

In particular work on changes of receptor complexes in Alzheimer's disease and related disorders including Down Syndrome is welcome for presentation as it is the receptor complexes that carry out major functions; reference:

Dorsal hippocampal brain receptor complexes linked to the protein synthesis-dependent late phase (LTP) in the rat. (<http://www.ncbi.nlm.nih.gov/pubmed/24442866>)

Li L, Wang H, Ghafari M, An G, Korz V, Lubec G.

Brain Struct Funct. 2014 Jan 18. [Epub ahead of print]

A special issue on Brain receptors in Alzheimer's disease is planned to be published in AMINO ACIDS, the forum of amino acid, peptide and protein research (impact factor 3.9).

Please reply to: Prof. Dr. Gert Lubec, Medical University of Vienna, Austria, Währinger Gürtel 18, A 1090 Vienna, Austria
Email: gert.lubec@meduniwien.ac.at or 14th ICAAPP

W248515E

I would like to use this opportunity to thank all universities and corporations for their support and participation in the "Spotlight on Austria". The "Spotlight on Austria" will be available on naturejobs.com including IST Austria's Employer Profile.

Please visit our website for career information and advice.

For ongoing recruitment advertising enquiries, please contact me at the details below. I wish all of you good luck in your future research endeavours.

Thank you! Mary

Mary Kubalova

Senior European Advertising Executive
South Germany | Austria | Switzerland

T: +44 (0) 20 7014 4084

E: m.kubalova@nature.com

naturejobs blog

INTERVIEWS

RECRUITMENT NEWS

OPINION

WINDBACK WEDNESDAYS

INTERACT

CAREERS

Q&A

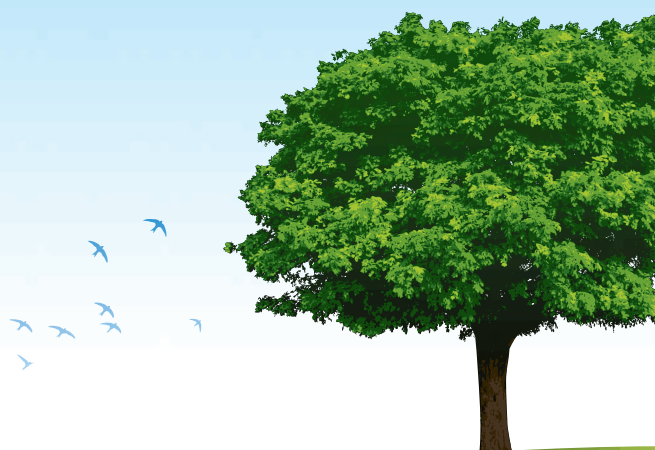
ADVICE

COMMENT

UPDATES

TIPS

blogs.nature.com/naturejobs/



nature publishing group **npg**

IST Austria

Pursuing excellence. Since 2009.

Natural sciences: Curiosity-driven basic research

Growing institution: 29 professors so far, 14 ERC grantees, aiming at 90 research groups by 2026

Attracting talent: Graduate school, tenure track

International environment: English-speaking, 53 nationalities on campus

All figures as of March 2014

Find out more about the Institute and applications for professors, postdocs and PhD students:

www.ist.ac.at

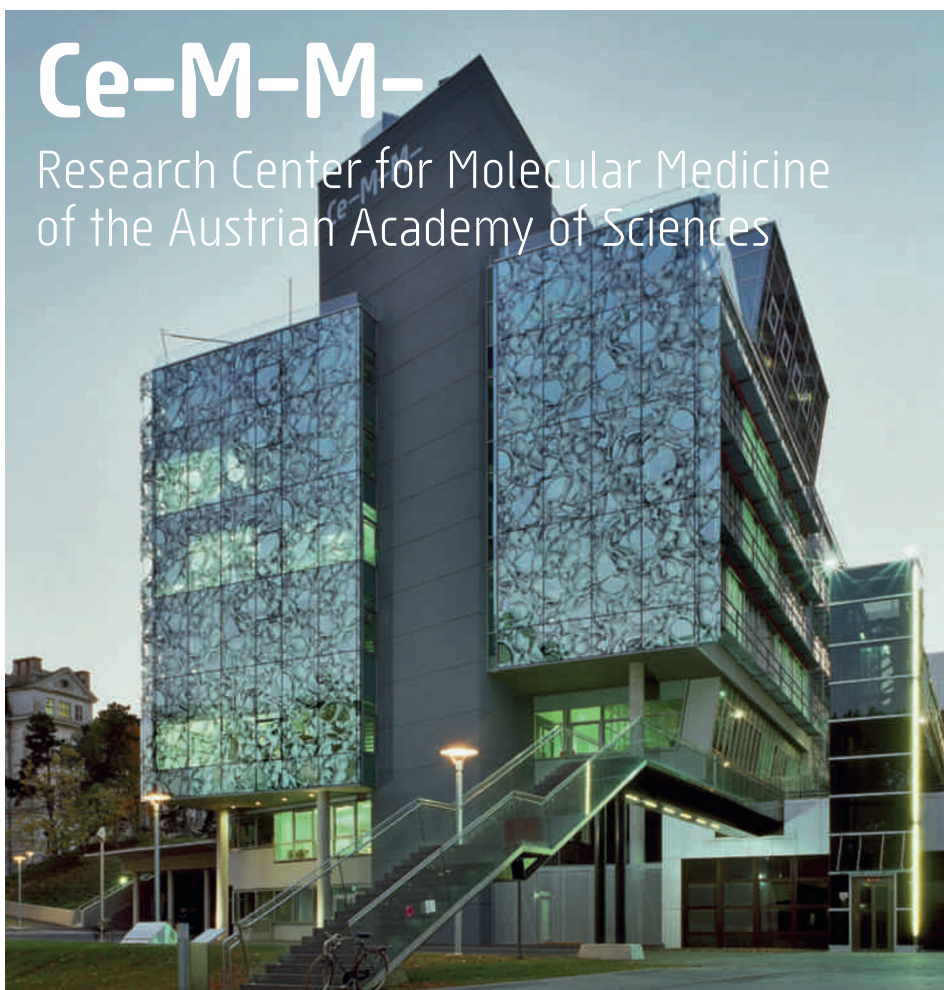


Institute of Science and Technology

W246097R

Ce-M-M-

Research Center for Molecular Medicine of the Austrian Academy of Sciences



Mechanism behind age-related macular degeneration identified (Weismann, Nature 2011) • Antiviral strategies mapped (Pichlmair, Nature 2012) • Missing gene in blood cancer identified (Klampfl, NEJM 2013) • New strategy for cancer therapy (Huber, Nature 2014)

CeMM changes the course of disease • in a new building with a landmark art facade by artist Peter Kogler • in the center of Vienna's General Hospital and Medical University Campus • integrates basic research and clinical expertise to pursue innovative diagnostic and therapeutic approaches • cancer, inflammation, immune disorders • systems biology, functional genomics and proteomics, high-throughput genetics and epigenetics, mechanisms of action of drugs, infection models • international PhD/Postdoc/PI mentoring programs • conferences, lectures, science & art

CeMM Research Center for Molecular Medicine of the Austrian Academy of Sciences

www.cemm.at

W248502R