lisa vr news

LIFE SCIENCE AUSTRIA → vienna region's newsletter 02/2009

: editorial

Dear Readers,

The 15th annual edition of BIO-Europe, the world's largest stand-alone biotech partnering event, will gather leaders of the life sciences industry at the Wiener Messe on November 2–4, 2009. We are proud of this sign that there is increased international recognition of Vienna as an attractive location for biotech. The event will be an ideal opportunity to get acquainted with the local biotech and pharma scene. Of course there are many more promising companies than those mentioned in this newsletter.

LISA VR will be available both for partnering and at the exhibition zone (booth 67). Meet us to learn more about biotech in the Vienna Region and Austria. We focus on helping companies to turn their innovative ideas into products. The life sciences in Vienna benefit from targeted research and technology funding. In addition, researchers, businesses and investors are also invited to benefit from our information and consultancy services as well as the networking and training opportunities we offer.

We hope you enjoy the reading and look forward to meeting you at BIO-Europe. As Vienna is most famous for its rich cultural traditions, we are especially pleased to invite you to join the evening receptions, which will be held at various attractive locations around the city.

Eva Czernohorszky
Michaela Fritz

▸ *www.lisavr.at*

BIO-Europe 2009

LISA VR: *This years BIO-Europe will take place outside Germany for the first time. Why did you choose Vienna for this partnering event?*

Carola Schropp: Part of EBD Group's mission is to promote the growth and development of the biotech industry across Europe. Vienna is the natural hub of biotech activity for Eastern Europe, and is also home to numerous dynamic start-up companies, international corporations and world-class research institutions. Thus, Vienna is a compelling location for BIO-Europe. The conference will attract leaders from all sectors of the international biotech community and we expect it to serve as a catalyst to accelerate biotech industry development in Vienna. In addition, the tremendous support of the LISA Vienna Region has convinced us that holding the event in Austria was the right decision.

LISA VR: *How did you develop BIO-Europe into the largest biotech partnering event in Europe? What is the secret of your success?*

Carola Schropp: It is no secret! Our success lies in the tight focus of our events. They are specifically structured to help initiate and nurture business partnerships in the biotech industry. The right partnerships are crucial to industry innovation, the creation of robust drug development pipelines and a well-capitalized industry. To facilitate collaborations, BIO-Europe features EBD Group's proprietary software platform partneringONE™, which enables conference delegates to identify potential business partners. Delegates can screen profiles of the 1,000+ attending companies and automatically pre-arrange one-to-one meetings both prior to and during the conference. Successful partnering is about building relationships between people, and BIO-Europe endeavors to create an atmosphere that encourages people to meet outside of the formal sessions, for example at BIO-Europe's highly anticipated evening receptions.

Carola Schropp is President of EBD Group.

LISA VR: *What are your expectations for BIO-Europe 2009?*

Carola Schropp: We expect the 2009 edition of BIO-Europe to break last year's record of over 10,000 one-to-one pre-arranged partnering meetings, making it the most productive biotech business exchange ever held in Europe.

BIO-Europe 2009
15TH ANNUAL INTERNATIONAL PARTNERING CONFERENCE

▸ *www.ebdgroup.com*

Life Science Austria Vienna Region

Life Science Austria Vienna Region (LISA VR) was set up in 2002 as a professional contact for life sciences in the Vienna region.

All our activities are dedicated to making an active contribution to the continued successful development of life sciences in the Vienna region. Whether as a researcher, a company or an investor, located within Austria or abroad, you will find all the important services and contacts here under one roof.

The LISA VR initiative is supported by Austria Wirtschaftsservice (aws) and the Vienna Centre for Innovation and Technology (ZIT). LISA VR is positioned at the interface between these two funding institutions and maintains close ties with other groups on the national and international life sciences scene.

What we offer

For researchers, business start-ups, established enterprises and financiers:

- Information about the Vienna region as a location for the life sciences
- Regular information and networking events to share experiences and make new contacts
- Courses and training events focusing on economic aspects of the life sciences at universities and technical colleges
- Trade shows and additional international marketing activities.

At a glance

BIO-Europe participants from Vienna as of Aug. 09

- Affiris GmbH *www.affiris.com*
- Apeiron Biologics AG *www.apeiron-biologics.com*
- Apeptico Forschung und Entwicklung GmbH *www.apeptico.com*
- Assign Clinical Research GmbH *www.assigngroup.com*
- Averion Clinical Research GmbH *www.averionintl.com*
- Baxter Innovations GmbH *www.baxter.at*
- Bender MedSystems GmbH *www.bendermedsystems.com*
- Biomay AG *www.biomay.com*
- Biomedica Medizinprodukte GmbH & CO KG *www.biomedica.co.at*
- Boehringer Ingelheim RCV GmbH & Co KG *www.boehringer-ingelheim.at*
- Cyathus Exquirere Pharmaforschungs GmbH *www.cyathus.eu*
- Eli Lilly Regional Operations GmbH *www.lilly.at*
- Fibrex Medical Research & Development GmbH *www.fibrexmedical.com*
- Harrison Clinical Research Eastern Europe Forschungs GmbH *www.harrisonclinical.com*
- Institute of Molecular Biotechnology GmbH *www.imba.oeaw.ac.at*
- Intercell AG *www.intercell.com*
- LISA VR - Life Science Austria Vienna Region *www.lisavr.at*
- Marinomed Biotechnologie GmbH *www.marinomed.com*
- Mycosafe Diagnostics GmbH *www.mycosafe.at*
- Nabriva Therapeutics AG *www.nabriva.com*
- Neumann Intenational AG *www.neumann-inter.com*
- Onepharm Research & Development GmbH *www.onepharm.com*
- Patentanwaltskanzlei Matschnig & Forsthuber OG *www.matschnig-patent.at*
- Polymun Scientific GmbH *www.polymun.at*
- RBPS-Technologies e.U. *www.rbps-technology.com*
- Redl Life Science Patent Attorneys *www.redlpatent.com*
- Sanova Pharma GmbH *www.sanova.at*
- Signalomics GmbH *www.signalomics.com*
- Trimed Biotech GmbH *www.trimed-biotech.com*
- Waters GmbH *www.waters.com*

Special services for start-ups and young high-tech operations in Vienna:

- One-on-one consultation on all aspects of starting up, relocating, partnerships, infrastructure and financing
- Custom tailored information on regional and nationwide funding schemes
- Business seminars for management teams with legal and business experts
- Support for participation in selected trade shows and other PR and advertising activities *

Dealing with Infectious Diseases: **Antiinfectives, Vaccines and Beyond**

Research and development on vaccines and antiinfective agents have a long history in Austria. In the 1950s an inactivated poliomyelitis virus vaccine for mass immunization was already being produced in Vienna. Also in the 1950s the first oral penicillin was developed by Ernst Brandl and Hans Magreiter at Biochemie Kundl in Tyrol, which is now part of the drug company Sandoz.

In July 2009, the Sandoz spin-off **Nabriva Therapeutics** announced the initiation of a phase I clinical trial of its pleuromutilin antibiotic BC-3781 to evaluate safety and tolerability in humans for intravenous administration. This compound was developed to treat serious infections such as community-acquired pneumonia. The company also has two other clinical trials already underway.

In June 2009 **Onepharm**, a Vienna based biotech company, announced the approval of a double-blind, placebo-controlled clinical phase II study in periodontal disease by the German health authority BfArM. Periodontitis is a major health issue with up to 50% of the adult population being affected. The chronic inflammation associated with peridontitis is mostly caused by bacterial infections in the mouth and leads to periodontal bone erosion (periodontal pockets) and ultimately tooth loss. Onepharm's main product candidate, an anti-inflammatory agent, could open up a new treatment regime for the disease, targeting the chronic inflammatory aspect of periodontitis.

Antibiotics, disinfectants and anti-inflammatory agents are not the only options for treating infectious diseases as **Marinomed** has shown. Marinomed is a biopharmaceutical company discovering and developing innovative naturally-derived immunological and antiviral treatments. In April this year, Marinomed was granted its first European patent for an antiviral polymer. Its first lead compound Carragelose is part of the antiviral nasal spray COLDAMARIS® prophylactic, which is currently available for preventing and treating the common cold.

Vaccines for the future

In the 1970s, an innocuous, highly effective vaccine against tick-borne encephalitis was being made available by a Vienna based company. Improved versions are now available as part of **Baxter's** product portfolio. Thus, vaccines and antibodies not only have a strong tradition in Austria but are also one of the main focus areas of biotech companies located in Vienna today. Baxter recently announced production of the first commercial batches of an influenza A/H1N1 pandemic vaccine.

Influenza vaccines are also part of **Avir Green Hills Biotechnology's** focus. In June 2009 the company announced promising preclinical data on a novel type of intranasal H5N1 influenza vaccine with the technology also being suitable for vaccination against swine flu. Using a nasal spray instead of injection into the muscle means the immunity is stimulated directly at the virus' portal of entry. This product is currently undergoing phase I clinical trials.

Polymun Scientific was founded in Vienna in 1992. The development of a live attenuated influenza vaccine produced in cultured cells led to studies of genetically modified influenza viruses as carriers for foreign epitopes from HIV or Tuberculosis. Polymun generates revenues by contract development and manufacturing of biopharmaceuticals and liposomes. A prominent example is Polymun's broadly neutralizing HIV-1 antibodies produced in Chinese hamster ovary cells.

A well known Viennese success story built on vaccine development is **Intercell**, which was set up at the Campus Vienna Biocenter in 1998. The company's first product on the market was a vaccine to prevent Japanese Encephalitis. Intercell's product pipeline includes vaccines in various stages of clinical trials and pre-clinical development. Intercell's needle-free vaccine patch technology can enhance the effects of existing vaccines as well as enable the development of new vaccines that are viable only through transcutaneous administration. At present, the vaccine patch is being used in-house to develop a novel Travelers' Diarrhea Vaccine Patch. A Vaccine Enhancement Patch on the other hand is being used in the development of a pandemic influenza vaccine. Intercell is listed on the Vienna stock exchange under the symbol "ICLL".

Vienna is also home to companies that apply the idea of vaccination to diseases far beyond infections. **Affiris** announced in May 2009 that it will develop a peptide-based atherosclerosis vaccine with support from the EU. The aim is to increase the amount of "good" high density lipoprotein cholesterol and to lower the "bad" LDLc (low density lipoprotein cholesterol) in the blood. Last October, Affiris secured GlaxoSmithKline Biologicals as a licensing partner for its Alzheimer's vaccine program.

For additional information, please order LISA VR's booklet "Focusing on R&D: Antiinfectives, Vaccines & Infectious Diseases" via e-mail to *office@lisavr.at.* *

Bioengineering: Better, Faster, Safer

Production and processing of biomolecules for the health sector requires not only special production facilities but also innovative technologies and expertise, as well as dealing with complex safety issues.

Global players such as Baxter, Boehringer Ingelheim and Sandoz have production plants located in Austria. **Baxter** has developed a Vero cell platform for the production of vaccines without the use of animal components. **Boehringer Ingelheim** implements the entire process chain for the production of biopharmaceuticals, and **Sandoz Austria** is a leading manufacturer of biopharmaceuticals and enzymes. Anti-infective drugs including antibiotics suitable for oral administration and biosimilars are important parts of Sandoz' product portfolio.


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Polymun offers contract development and manufacturing of biopharmaceuticals in mammalian and microbial cells. Furthermore, they have an innovative liposome technology that can be applied to optimize the formulation of a variety of pharmaceutically active ingredients.

The Vienna-based company **Biomay** is a pioneer in the field of recombinant allergens and plans to develop allergy-specific immunotherapies with recombinant allergen vaccines. Biomay also makes its facilities available for GMP contract manufacturing of clinical-grade recombinant proteins and DNA molecules. In June 2009 the company announced a collaboration with **RBPS-Technologies** to offer contract production of GMP-grade minicircle DNA. Minicircles are one of the safest and most efficient gene transfer vectors for non-viral gene transfer.

Quality & Safety

The growing market of biological, biopharmaceutical and cell therapy products generates an increased need for expertise in the area of biosafety assurance in compliance with regulatory requirements.
Mycosafe is worldwide one of the few GMP-certified suppliers specialized in the area of mycoplasma biosafetey testing and related R&D, validation, consultancy and educational services. **ViruSure** offers GLP/GMP-certified contract virus and prion safety testing. In March 2009, Mycosafe and ViruSure established a joint venture in Singapore to meet rapidly growing market demands and to establish new business relationships in the Asia Pacific Region.

Improving naturally occurring biomolecules

Bioenineering can be used to improve existing biomolecules, which is the main focus of Vienna-based businesses like f-star and Eucodis Bioscience. **f-star** is a young antibody engineering company founded in Vienna in 2006. With the aid of its Modular Antibody Technology, additional binding sites can be introduced into antibodies to create antibody fragments of much smaller size (FcabTM) or the generation of full-sized antibodies with additional functions (mAb2). **Eucodis Bioscience** develops, manufactures and markets industrial enzymes. Eucodis Bioscience' products help customers in the chemical, pharmaceutical and food and feed industries to make manufacturing processes cleaner and more efficient, and to generate products with superior properties.

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Breaking through to the marketplace: **Help is at hand**

Essential for getting new biotech products onto the market is know-how in legal issues like intellectual property rights and clinical trials. In addition, it is necessary to find the best talent to realize business success. High quality services on these issues are available in Vienna – as the examples given below show.

Redl Life Science Patent Attorneys is a team of specialists on intellectual property rights in the life sciences benefiting from 20 years of experience in biotechnology and pharma business throughout Europe. They provide personalized strategic advice for obtaining patents, trademarks and other intellectual property rights, and they also represent clients during official procedures.
The law firm **Patentanwaltskanzlei Matschnig & Forsthuber** provides professional support concerning patents, trademarks, design and other intellectual property rights in Austria, the European Patent Office and abroad. Furthermore, they offer advice concerning IP management and license deals.
For services relating to clinical trials, **Harrison Clinical Research** is an experienced group based in Vienna since 2004. The international contract clinical research organization (CRO) offers the full range of services required for successful clinical development and registration of new pharmaceutical products and medical devices.

Assign Clinical Research is a "one-stop" yet flexible Clinical Research Organization. The company's workpackages include all activities surrounding clinical research, from writing study protocols, to biostatistics, data management, pharmacovigilance, regulatory contacts, full project management, monitoring, lab management and IMP handling. They have substantial expertise in Central Eastern Europe and South America. Regional offices are in Hungary, Poland, Germany and Chile.
Averion Clinical Research is an international clinical research organization which offers services for global clinical studies. Support spans the entire product development lifecycle from first-in-man through regulatory approval and post-marketing surveillance studies. Averion has a strong therapeutic focus on oncology, cardiology and medical devices.
Attracting the best professionals is a key issue for biotech and pharma companies just as it is for any organisation. **Neumann International** is an experienced partner for identifying candidates for challenging jobs on the global marketplace. *

Austrian Centre of **Industrial Biotechnology** (ACIB)

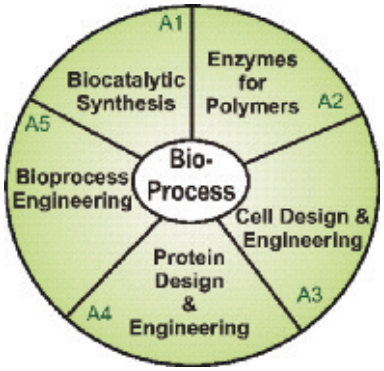
A new competence centre initiative aims to make industrial bioprocess development more transparent, more predictable and therefore faster and cheaper.

The Austrian Centre of Industrial Biotechnology (ACIB) aims to gain insight into biological production tools and systems on a molecular level, and link this knowledge to the development and management of bioprocesses. They have 36 industry partners from Austria other European countries as well as the US, and about 150 researchers, who are predominantly based in academic institutes in Vienna, Graz and Innsbruck, already on board.

Interested in joining ACIB?
Please contact the ACIB team!

ACIB focuses on five topics:

Biocatalytic Synthesis: Development of biocatalytic methods for the transformation of low-molecular-weight substrates into well-defined products as compounds for various industries, including pharma and agro.
Enzymes for Polymers: Polymer enzymology and characterization of polymer-enzyme surface interactions for modification of bio/synthetic polymers and the generation of intelligent polymeric materials.
Cell Design & Engineering: Characterization of microbial and animal cell protein production hosts and engineering whole cell biocatalysts for improved high yield synthesis of proteins and biochemicals.
Protein Design & Engineering: Knowledge base for both designing new and improving existing proteins for bioprocesses using molecular biology techniques combined with detailed insight into structure-function relationships.
Bioprocess Engineering: New strategies to optimize cultivation processes as well as control and management for the production and processing of chemicals, enzymes and biopharmaceuticals.



ACIB comprises five different research areas

An application with the Austrian Research Promotion Agency (FFG) for funding by the agency's COMET programme has been filed. The funding decision is scheduled for end of October 2009.

▸ *www.acib.at* *

Focusing on **Acute** and **Critical Care Medicine**

Diseases of the heart and respiratory system are leading causes of death in the western world and along with other critical diseases are the primary focus of several biotech companies based in Vienna.

In July 2009, Vienna-based **Apeptico** was granted Orphan Medicinal Product Designation by EMEA for its lead product AP301 to treat Acute Lung Injury. AP301 is a short and synthetic peptide that activates alveolar liquid reabsorption and counter-acts hyperpermeability of lung cells, which are the main causes of Acute Lung Injury. AP301 will also be tested for other respiratory diseases and can be applied as an aerosol.

Respiratory disorders are also part of the business focus of **Apeiron**: The company's prime product candidate APN01 (a recombinant form of the human Angiotensin Converting Enzyme 2) targets conditions involving an imbalanced Renin-Angiotensin-System, such as pulmonary (ARDS, PAH) and cardiovascular (AHF) conditions, diabetic nephropathy and cancer. Preliminary results of an ongoing phase I study in healthy volunteers which is to be completed by the end of 2009 indicate an excellent safety profile. Apeiron's founder, Josef Penninger is also scientific director of the **Institute of Molecular Biotechnology (IMBA)** which is dedicated to the investigation of fundamental molecular processes and their contribution to disease. Potential fields of application include major disease areas such as inflammation, autoimmune disorders, cardiovascular and neurodegenerative diseases, and cancer.

Fibrex Medical, which was established in Vienna in 2001, focuses on severe medical conditions. Its product candidates FX06, FX201 and FX107 are fibrin-derived peptides that bind to vascular endothelial cells, preserving their function and preventing tissue injury. Fibrex's lead product FX06 has a well characterized safety profile and has undergone promising phase I and II clinical trials. In August 2009, the US based biotherapeutics company Ikaria licensed the Fibrex product portfolio to complete development and commercialization. Having drugs available in the right place at the right time is crucial both for acute and critical care medicine.

Sanova is a specialist in healthcare logistics and distributes medicines for a broad range of conditions including inflammation, hyperphosphataemia and cardiovascular disorders.

For these critical diseases, in vitro diagnosis and monitoring of blood coagulation are especially important. This was the original focus of **Technoclone**, which was set up in 1987. Today, the company is a world leading producer not only of ELISA systems but also of global and special coagulation tests, control and reference plasmas and protein as well as lipid diagnostics.

In vitro diagnostics are also offered by **Biomedica**, along with medical devices for cardiology, cardiac surgery, nephrology and intensive care. Within its own R&D program Biomedica developed and now produces a range of innovative immunoassays for cardiovascular and osteological markers. *

Oncology: The Study of Cancer

In 2008, the World Health Organization announced that cancer would become the leading cause of death worldwide by 2010. Cancer is a complex set of different diseases. Accordingly, Vienna based organizations focusing on oncology apply a range of strategies for the diagnosis and treatment of cancer.

Diagnosing malignant tumours has traditionally been accomplished by histological analysis of biopsies using visual and verbal approximations. Even today, this is a standard procedure in diagnostic labs worldwide. **TissueGnostics** has developed new tools for the rigorous and precise analysis of tissue sections and smears. Both hardware and software for quantitative analysis of tissue images are available. With the latest innovation, HemoFAXS, TissueGnostics now offers a tool for all types of haematological diseases.

Molecular imaging agents to detect tumours are at the centre of Signalomics' product portfolio. **Signalomics** develops fluorescent nano-crystals connected with proteins or DNA that are able to bind with high specificity and affinity to tumour cells. Even single cancer cells can be made visible, enhancing the diagnostic analysis of tumour size and status.

Research reagents and diagnostics for cancer research have been developed in Vienna by **Bender MedSystems**. The company is dedicated to the development of biomedical research tools for monitoring non-cellular components of the immune system using blood analysis kits. Research fields include cytokines, chemokines, adhesion molecules, tumour and apoptosis markers, metabolic markers and coagulation factors, for both human and animal research. Assay formats such as FlowCytomixTM - Bead-based Immunoassays for Multiple Analyte Detection on Flow Cytometer, Instant ELISA® Kits and Conventional Sandwich ELISA Kits reflect the company´s focus on the customers´ needs.

In order to provide individualized cancer medicines, **Trimed Biotech** have developed a dendritic cell-based cancer vaccine which is currently undergoing advanced clinical trials. In 2006, **AOP Orphan Pharmaceuticals**, an Austrian pharmaceutical company specializing in orphan drugs, took over majority ownership of Trimed.

Sanochemia is a specialty pharmaceuticals company with its own production facilities. In addition to oncology the firm focuses on indication areas of neurodegeneration, pain and clinical diagnosics e.g. for bladder cancer.

Vienna is the location for cancer research of the international **Boehringer Ingelheim Group**. Two products developed in Vienna have recently advanced to the final stages of clinical trials before marketing approval. BIBW 2992 (Tovok™) prevents the communication of cancer cells with their surroundings and thereby slows down or stops tumour growth. BIBF 1120 (Vergatef™) inhibits the production of new blood vessels that feed tumours. This compound is tested for the treatment of ovarian and prostate cancer, as well as cancer of the large intestine. Vienna is also the home of Boehringer Ingelheim's fundamental research centre, the **Research Institute of Molecular Pathology (IMP)**, which focuses on curiosity-driven research. The IMP is a partner of the **Ludwig Boltzmann Institute for Cancer Research**, whose Multi-Hit technology enables the generation of transgenic mouse models for many different cancers. Together with the **Children's Cancer Research Institute** based at St. Anna Kinderspital, Ewing's sarcoma and B-ALL leukemia mouse models are developed. Melanoma, colon, lung and prostate cancer are also being focused on. Such fundamental research is complimented by clinical study groups such as the **Austrian Breast and Colorectal Cancer Study Group (ABCSG)** that is currently recruiting up to 40% of all Austrian breast cancer patients in its clinical trials. Vienna is also home to the **Central European Society of Anticancer Drug Research's** central office. This platform focuses on novel drugs and treatments in oncology. *

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LISA Vienna Region
Ebendorferstrasse 4
1010 Vienna
Austria
PHONE: +43-1-4000-86934
FAX: +43-1-4000-86587
E-MAIL: office@lisavr.at
WEB: www.lisavr.at

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A MEMBER OF LISA LIFE SCIENCE AUSTRIA

November 1 - 4, 2009: In Vienna Around the Clock

BIO-Europe, Europe's most productive biotech partnering event calls you to Vienna in 2009. As in previous years, thousands of leading biotech, pharma and finance executives and dealmakers from emerging companies will participate in this event. Prearranged one-to-one meetings in private cubicles allow focusing on business development with both potential and established partners. BIO-Europe also offers insightful panel sessions, informative company presentations and a dynamic international exhibition.

After having spent your days at **Messe Wien** (Messeplatz 1, 1021 Vienna - U2 Messe/ Prater) you will have the opportunity to get in touch with the glamorous imperial history of the City of Vienna in the evenings.

On Sunday, November 1, 2009 LISA VR will invite all participants to the Welcome Reception, which will take place at the Schoenbrunn Palace's Orangery. The event will start at 7 p.m. Before the reception free guided tours for 360 BIO-Europe participants are available, lasting around an hour and starting every 5 minutes from 5 p.m. For details please see www.lisavr.at.
Schoenbrunner Schlossstrasse 47, 1130 Vienna (U4 Schoenbrunn)

On November 2, 2009, at 7:30 p.m. the Austrian Federal Ministry of Economy, Family and Youth will open up the Redoute Halls at the Hofburg, the former imperial city residence.
Josefsplatz 3, 1010 Vienna (U3 Herrengasse or U1/U3 Stephansplatz)

On November 3, 2009, supported by the City of Vienna and Bayer Healthcare, the evening event will take place at the ballroom of Vienna's town hall. Start: 7:30 p.m.
Friedrich-Schmidt-Platz 1, Entrance: Lichtenfelsgasse 2, 1010 Vienna (U2: Rathaus)

- *www.ebdgroup.com/bioeurope*
- *www.lisavr.at*
- *www.messe.at*
- *www.schoenbrunn.at*
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