



: editorial

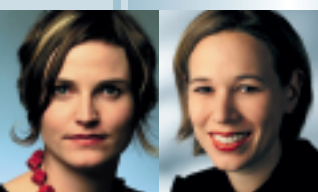
Dear Readers,

LISA VR had its **five year anniversary** in 2007. Certainly, this was a cause for celebration, but it is also provides a good opportunity to look back. Over the last five years, a dynamic life sciences scene has emerged. Today, Vienna's excellent scientific traditions form the basis for a lively business landscape with more than 140 companies employing around 10,000 people. LISA VR's partners, who are the Austria Wirtschaftsservice and the Center for Innovation and Technology, have supported this progress with around EUR 150 Mio. in total over the last five years.

The list of **outstanding success stories** of the life sciences community in Vienna is continuously growing. The highlights include the completion of funding rounds by many companies that succeeded in attracting private investors, Intercell AG going public, both the Campus Vienna Biocenter and the Technology Center Muthgasse are being extended, Viennese companies have expanded internationally and our academic research grows stronger.

Looking back at these achievements gives us courage to **look forward** to the future. We already want to draw your attention to 2009 as we have succeeded in attracting the **BIO-Europe 2009** to Vienna. For the first time, this renowned business conference

will take place outside Germany. We are already looking forward to welcoming you in Vienna from November 2 to 4, 2009!



Eva Czernohorszky
Michaela Fritz
Executive Board

► www.lisavr.at



Onepharmteam:
Oliver Szolar, CSO
Irene Zinoecker, Senior Technician
Otto Doblhoff-Dier, COO
Bernhard Kueenburg, CEO

onepharm

Onepharm: Passion for Innovation

From Influenza to Periodontitis: Onewarm's anti-inflammatory drug candidate OMP-3023 inhibits periodontal bone loss in an animal model

"One of our lead drug candidates, OPM-3023, completely inhibits bone loss in a fulminant Periodontitis rat model. When we received these exiting data in spring 2008, we knew this was it", recalls Otto Doblhoff-Dier, COO of onepharm, a Vienna-based company that has been set up in 2005 - originally with a strong focus on viral diseases. "We do not know of any registered product on the market that shows similar effects in Periodontitis." On the basis of their new data, onepharm intends to develop a new drug for the treatment of periodontal bone loss together with its research collaboration partner, the Forsyth Institute in Boston, USA. The company wants to start clinical trials this year.

In parallel, onepharm is actively preparing the first clinical trials for OPM-3001, an influenza drug candidate that is being developed in cooperation with Mino-phagen, Japan. Some of the 25 employees are also improving onepharm's drug candidates OPM-3001 and OPM-3023 by

chemical modifications. "We now test our modified small molecule drugs for inhibition of various enzymes that play key roles in inflammation", explains Oliver Szolar, CSO. "We apply computer pharmacophore models and a broad range of cell biological and biochemical methods to test new candidates."

► Vienna: political backing for biotech and pharma research

Onepharm is an innovative pharmaceutical company with a focus on chemical, clinical and formulation development of small molecule drugs. The company is funded by private investors as well as a Viennese Venture Fund. "Without the substantial backing by Austria Wirtschaftsservice, the Austrian Research Promotion Agency as well as the Vienna Center for Innovation and Technology, onepharm would never have developed this well", explains Bernhard Kueenburg, CEO.

► www.onepharm.com





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20 years of life science research at the IMP



20 years ago, a team of enthusiastic scientists, technicians and administrative staff moved to their new workplace in Vienna's third district. They happily settled into their sparkling new labs and bright offices. The surrounding area, however, looked less inviting, with dusty shed halls on one side and an abandoned slaughterhouse at the back. But that was to change soon.

The building, which was officially opened in May 1988, is home to the **Research Institute of Molecular Pathology (IMP)**, a basic research unit supported by Boehringer Ingelheim. What started out as a pioneering initiative became a world class center of excellence and triggered a dynamic development in Vienna's biotech landscape.

Today, the IMP has 225 employees from over 30 nations and lies at the heart of the Campus Vienna Biocenter, a bustling conglomerate of academic and private research institutions, biotech companies and training facilities. Over the past 20 years, IMP researchers have published more than 1,500 scientific articles. Their discoveries have led to 90 patents filed on behalf of Boehringer

Ingelheim. Participating in the International PhD Programme, over 200 students started their career at the IMP.

- The **focus of research** at the IMP has shifted over the years, following developments in the molecular life sciences. Today, the IMP's activities concentrate on the areas of molecular cell biology, neurobiology and mechanisms of disease.
- The **scientific discoveries** are manifold. While most of them add but a tiny yet significant amount to our pool of knowledge, some are considered major breakthroughs and have found their way into the textbooks. Among the most fundamental contributions to biology that came from the IMP are disco-

veries of mechanisms that make sure cells divide timely and correctly. Other significant discoveries include the unraveling of the "epigenetic code", the identification of genes involved in neural circuit assembly and function, the description of factors that control tumor formation and the characterization of the amazing properties of stem cells.

- The IMP's **success story** is based on rather obvious yet very effective strategies: scientists enjoy maximum freedom in choosing what to study, who to work with and how to spend their budget. They are supported by centralized service facilities, dedicated staff and excellent equipment. Administration is lean and efficient, ensuring fast decisions and minimum bureaucracy. And all that comes with an expiry date: with few exceptions, scientists are employed on limited contracts, thus a constant influx of new ideas is guaranteed.

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The newly developed HemoFAXS® system for counting and classifying leucocytes in blood smears.



TissueGnostics expands its business to Japan and the USA

The Austrian TissueGnostics Inc. is active in the field of biomedical technologies and develops and distributes worldwide. The team, led by founders Georg Steiner and Dr. Rupert Ecker, two highly experienced scientists from Vienna Medical University, is focussing on diagnostic tools for single cell detection in solid tissue, cell cultures and blood smears.

The company's core competence is image analysis, one of the most promising future technologies. Cutting edge dynamic algorithms developed for cell analysis have been patented worldwide and have been very quickly appreciated internationally.



TissueFAXS® system showing TissueQuest Cell Analysis Software.

Recently TissueGnostics was certified according to EN ISO 13485:2003, for highest quality standards in developing, manufacturing, distribution and maintenance of medical technical systems and products. This is a significant step for the future clinical diagnostic use of TissueGnostics systems and solutions.

"Since one and a half year Athena Wien Beteiligungs AG is one of the investment partners and greatly facilitated the entry into the worlds markets", states Katja Österreicher, responsible for Marketing and PR. "The products are displayed on national and international congresses."

During the last year the entry into the US market has been successful and TissueGnostics is now represented in Los Angeles through a daughter company. Since January 2008 TissueGnostics is represented by Rikaken-Novel Science on the Japanese market as well. Rikaken-Novel Science with its registered office in Nagoya is the second largest distributor for scientific instruments with more than 145 millions US\$ annual turnover. 150 sales representatives are covering more than 60% of the market, mostly in the eastern part of Japan, including Tokyo.

► HemoFAXS® - objectivity through automatisisation

TissueGnostics latest economic successes have been in the field of biomedical research, a 15 billion US\$ market. Now TissueGnostics is focusing on the clinical diagnostic market with its newly developed HemoFAXS®. In this market the big players in biomedicine, e.g. Beckmann Coulter Inc., have annual expansion rates in double figures.

Diagnostic precision has crucial influence on a long chain of therapeutic decisions. The team at TissueGnostics developed a novel system for the evaluation of blood smears e.g. in case of leukaemia. In addition to the well established solutions for tissue and cell analysis (e.g. TissueFAXS®), TissueGnostics is entering the field of haematological differential diagnosis. The volume of the global Clinical Diagnostic Market is valued at 32 bil-

lions US\$ and is growing by 5% annually. The world market for hematology diagnostics is valued at 1.4 billions US\$ and is growing annually (annual report 2006 Beckmann Coulter Inc., USA) by 3%.

The system automatically searches and quantifies leucocytes, as well as classifying them into 13 different subpopulations. Classification is done by the so-called "Support Vector Machine Technology", a trainable expert system. The results are observer independent (e.g. not influenced by fatigue or stress) and help the haematologist to make a more precise and rapid diagnosis. Saving the images offers the possibility for long time storage, as well as electronical world-wide communication with specialists in case of need.

Reliable single cell recognition within the examined blood smears and the automated analysis processes are unique advantages in comparison with previous products. "The acquisition of the software costs less than the examination of one leukaemia patient", states Univ. Prof. Dr. Richard Moriggl of the LBI Cancer Research Institute in Vienna. "TissueGnostics provides a unique way to meet the increasing requests for quality management in the field of blood analysis."

Meet us at BIO 2008

Get to know the Vienna Region as a prime location for life sciences at BIO 2008 (booth 501). The following companies present themselves at the Austrian Pavilion:

Dance with us

Austria invites you to learn the Viennese Waltz



BIO 2008
AUSTRIAN PAVILION,
BOOTH 501
TUESDAY, JUNE 17
5:00 - 6:30 P.M.

- The focus of **Apeiron Biologics** is the development of a recombinant human enzyme for the treatment of a variety of organ-related acute syndroms and diseases, as well as novel immunotherapeutic approaches against cancer.
 - **Austrianova Biomanufacturing** is a pioneer and technology leader in cell encapsulation and focuses on the clinical development of highly effective cell therapies for the treatment of difficult to treat solid tumours.
 - **Avir Green Hills Biotechnology** is focused on product development of therapeutic strategies against viral infectious diseases, in particular influenza and cancer.
 - **f-star** is an antibody engineering company developing improved therapeutic antibodies and antibody fragments based on its Modular Antibody Technology, which introduces additional binding sites into antibodies and antibody fragments.
 - **Fibrex Medical** develops and commercialises innovative therapeutics in the fields of cardiovascular diseases and inflammation. The company has a core competence in analysing fundamental mechanisms governing inflammation in the human body and converting this knowledge into products.
 - **Onepharm** focuses on exploiting the therapeutic value of its lead compounds in chronic inflammatory diseases and influenza and generates new lead compounds by chemical modification.
 - **Oridis Biomed** provides research services and solutions for the analysis of human tissue, delivering medical validation to drug and biomarker development programs ("clinical trial on a chip").
 - **Sanochemia's** focus is on the development and manufacture of novel drugs and diagnostics for indications such as neurodegeneration, pain, oncology and diagnostic investigations based on contrast media.
 - **Vela Laboratories** focuses on the development of innovative cancer therapeutics, with emphasis on monoclonal antibody therapy and multi-epitope cancer vaccines. Additionally, Vela provides analytical and quality control services for biotech and pharma industry.
- In addition to these companies, which share the Austrian Pavilion, also **Intercell** (Booth 921) focused on smart vaccines and **Sandoz** (Booth 2631), specialist on manufacturing, are present at BIO 2008.
- The LISA VR team is available to answer your enquiries at booth 501 - please e-mail us to arrange an appointment: ecker@lisavr.at