lisa vr news

LIFE SCIENCE AUSTRIA **vienna region's newsletter** 01/2011

Cooperation – The Secret of Success

Dynamic biotech start-ups like f-star , Apeiron, or Marinomed demonstrate that Vienna is a hotspot for medical innovation.

The development and production of advanced drugs is associated with enormous costs and a long development process. The successful development of new product ideas depends on many success factors, mainly: determined researchers and entrepreneurs, readily accessible government support schemes, venture capital and/or private capital as well as the development expertise and structure of big pharmaceutical companies. Therefore, many young biotech companies are searching for partners.

In the last year four companies in Vienna closed outstanding license-deals:

Apeiron

In March 2011, Apeiron Biologics entered into an exclusive option to license a number of novel compounds from the **Cleveland Clinic**. These compounds are currently in development at Cleveland Clinic as drug candidates for treatment of various cancers, designed to fight cancer based on stimulation of the immune system. This transaction follows in the wake of successful in-licensing deals that Apeiron completed in the last six months: In February 2011, Apeiron acquired exclusive rights to hu14.18-IL2 (APN301), a phase II antibody-based biologic for treatment of neuroblastoma, melanoma and other cancers from **Merck**, and in October 2010, the in-licensing deal with **Polymun** for recombinant human superoxide dismutase (APN201), a naturally occurring enzyme for treatment of cancer treatment-related side-effects, also in phase II, was closed. Apeiron's successful out-licensing deal with **GlaxoSmithKline** in January 2010 (phase I project APN01) gave the company the possibility to expand its project portfolio with a focus on biologic/immunologic therapy of cancer and related conditions by in-licensing promising projects.

f-star

In November 2010, f-star signed a collaboration and license agreement with **Boehringer Ingelheim** for joint discovery of new antibody-derived therapeutic products based on f-star's Modular Antibody Technology. This agreement could possibly be the biggest deal ever made in Austria. Boehringer Ingelheim can nominate up to seven therapeutic targets which could result in payments to f-star of up to EUR 180 million per target. partneringNEWS™ listed the deal between f-star and Boehringer Ingelheim under the top ten deals of 2010.

Marinomed

In June 2010, Marinomed, a company focused on the development of innovative therapies for respiratory diseases, signed a licensing agreement with **Boehringer Ingelheim**. The aim of this deal is the marketing of Marinomed's anti-viral nasal spray for the treatment of the common cold in Europe, Russia and the CIS, South America, parts of Asia and Australia. Boehringer Ingelheim plans to market the anti-viral nasal spray under the well-known cough and cold brand Mucosolvan®.

Polymun

In April 2010, Polymun received a follow-up contract from **GlaxoSmithKline** for the manufacturing of APN01 in CHO cells as a sequel of Apeiron's out-licensing of APN01 to GSK. In October 2010, Polymun succeeded with out-licensing the recombinant human superoxide dismutase to **Apeiron**.

Apart from license-deals, which strengthened the financial position of the above-mentioned companies, R&D cooperations with renowned research institutes lay the foundation to success through knowledge gain. Among others, two Vienna-based companies should be pointed out:

Themis

In July 2010, Themis Bioscience, a Viennese start-up biotechnology company that develops vaccines against tropical infectious diseases, formed a joint R&D program with Institut Pasteur, the Paris-based world leading research institution. The new partners join forces for the preclinical development of various vaccines against tropical diseases. **Institut Pasteur** will be providing its renowned measles virus vaccine vector technology, and will also perform specialized biological techniques and testings. Themis will be concentrating on all industrialization and commercialization aspects, including the manufacturing and clinical development activities for these products.

Savira

Savira is focusing on the development of drugs for the treatment of influenza. The company is part of a project consortium under the lead of the **European Molecular Biology Laboratory** (EMBL). Within the European Health Care Call – Influenza 2010 – of the Framework 7 program, the consortium was awarded a grant of EUR 6 million. In this project, the consortium will exploit their recent advances in the detailed mechanistic understanding of the structure and function of the viral polymerase, the replication machine of the virus, to develop new drug candidates that inhibit viral replication in infected cells.

Without cooperations and relevant government support schemes biotech start-ups would only have a small chance to survive. The success stories of the Viennese biotech scene show that small companies can also close big deals!

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: editorial

Dear Readers,

LISA VR experienced a dynamic start to the New Year with a newly set-up team. As the new managing dir ectors we have had a busy time since October 2010, fortunately building on the achievements of our pr edecessors, Eva Czer nohorszky and Michaela Fritz. The change in management was followed by a change in board members of LISA VR: Wolfram Anderle, head of the business unit Technology and Innovation at Austria Wirtschaftsservice and Eva Czer nohorszky, formerly managing dir ector of LISA VR joined the boar d. In addition, the team was complemented by two new , dedicated employees: Hans-Peter Spengler , cluster manager for medical technology and Maria Hinnerth, project manager for marketing & PR joined in January 2011. W e are pleased to introduce our team in this newsletter.

Our goal is to further develop Vienna as one of the top life science locations in Europe by providing dedicated consulting, marketing, and training to the local community . Specifically, we aim to strengthen medical technology in V ienna, which is a highly diversified sector. By fostering networking and public relations, we want to increase the visibility of this sector and highlight the importance. Financing remains a crucial success factor for life science companies: Her e, we would like to draw your attention to the current **ZIT Focus on Life Sciences 2011** . We also would like to intr oduce the **BOB Winners 2010** to you.
Furthermore, this newsletter includes an update on the **trade fairs** we will be attending in the coming months and, in addition, some interesting **Life Science Events** in Vienna. As usual, you will find an extract of **news** in the middle of our newsletter which updates you on recent developments in the Vienna region. Moreover, we invite you to read our articles on **successful cooperations, navigation in the data jungle** , and **advanced services** in Vienna.

Finally, we would like to invite you to join us at the traditional LISA VR **Standortfest "Translational Research in Medicine – Meet the Experts of CeMM & MUW"** on May 5, 2011 at the top floor of the new Anna Spiegel Reasearch Building located at the campus of the Vienna General Hospital.

Johannes Sarx and Peter Halwachs
LISA VR Executive Board
www.lisavr.at

What we **offer**

:: **Consulting**
:: **Marketing**
:: **Qualification**
:: **Networking**
:: **Knowledge**

Life Science Austria V ienna Region (LISA VR) is your key pr ofessional partner in the Vienna Region when it comes to biotechnology, pharmaceuticals, and medical technology. Whether you are an entrepreneur, an investor, or a r esearcher, LISA VR pr ovides you with essential services in Austria' s largest life sciences location.

Benefit from our Knowledge

In 2010, LISA VR published two topic-specific booklets: one on **medical technology** and a second on **production capacities, technologies and services** in biotech and pharma in Vienna.

Both booklets can be ordered for free.
Contact us at
T +43 [1] 50175 358 or office@lisavr.at

: Meet LISA VR abroad

BIO International Convention
Washington, June 27-30, 2011

CPhI Worldwide
Frankfurt, October 25-27, 2011

BIO-Europe
Düsseldorf, October 31 - November 2, 2011

Medica
Düsseldorf, November 16-19, 2011

: Life Science Events in Vienna*

5th Research Panel of the Austrian Universities of Applied Sciences
April 27-28, 2011

International Congress on Prevention of Congenital Diseases - Newborn Screening in Europe
May 12-14, 2011

General Meeting of the European Society for Animal Cell Technology-ESACT
May 15-18, 2011

eHealth 2011
May 26-27, 2011

56th Annual Meeting of the International College of Dentists, European Section
June 16-18, 2011

ISMB/ECCB 2011 –
19th Annual International Conference on Intelligent Systems for Molecular Biology and 10th European Conference on Computational Biology
July 15-19, 2011

21st International Symposium on Glycoconjugate
August 21-26, 2011

13th World Congress of the World Federation for Ultrasound in Medicine and Biology
August 26-28, 2011

The European Molecular Biology Organization Meeting 2011 – Advancing the Life Sciences
September 10-13, 2011

** This list is not exhaustive.*

A New Year with **a New Team**

LISA VR started into 2011 with many new team members: Johannes Sarx (Austria Wirtschaftsservice, aws) and Peter Halwachs (Technology promotion agency of the City of Vienna, ZIT) assumed their responsibility as managing directors of LISA VR in October 2010, representing the respective owners of this joint initiative being the Ministry of Economy, Family and Youth and the City of Vienna. The core team of LISA VR consists of four people: Sabine Ecker, cluster manager for biotechnology and pharma; Hans-Peter Spengler, cluster manager for medical technology; Maria Hinnerth, project manager marketing and public relations; and Juergen Fuchs, who is in charge of administration and central services.
In addition, three employees of LISA VR's partners are active in our projects: Eva Maria Beck (events, office) and Arnold Reikerstorfer (lecturer), both from aws as well as Nadja Hermann (back office/controlling) from ZIT.

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f.l.t.r: Peter Halwachs, Maria Hinnerth, Hans-Peter Spengler, Jürgen Fuchs, Sabine Ecker, Arnold Reikerstorfer, Eva Maria Beck, Johannes Sarx, Nadja Hermann

ZIT Focus on Life Sciences 2011 – **Financial Support for Industrial R&D Projects**

ZIT serves as the technology promotion agency of the City of Vienna. The activities of ZIT encompass direct financial assistance (i.e. grants) to companies, providing technology-specific infrastructure, as well as accompanying services in all phases of the innovation process.

In Vienna, the life science sector has developed impressively in recent years. Many of the former start-ups have grown up and are now in clinical trials, also thanks to the extensive venture capital which they have been able to raise. At the same time, the dynamic emergence of life science start-ups continues unabatedly.

These developments comprise an additional challenge for Vienna's technology policy. The technology promotion agency of the city of Vienna wants to support all Viennese life science companies irrespective of their development stage. Therefore, they are focusing on Life Sciences in 2011. In the scope of this focus, there are two calls:

zit

Life Sciences 2011 FACTS

- open for: all Viennese companies active in R&D in the area of life sciences
- Funding budget EUR 2 million
- Grants of up to EUR 750,000 per project
- Project applications can be submitted online from March 1 to June 16, 2011

From Science to Products 2011 FACTS

- open for: all research projects of Viennese companies dealing with transfer of scientific research to innovative products and services
- EUR 2 million for business R&D Projects
- Grants of up to EUR 500,000 per project
- Project applications can be submitted online from June 1 to September 6, 2011

For further information please visit www.zit.co.at/en, call T +43 [1] 4000 86 165, or contact the LISA VR experts Sabine Ecker (Biotech & Pharma) ecker@lisavr.at or Hans-Peter Spengler (Medtech), spengler@lisavr.at

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Company News

Miracor reports successful completion of the 'Prepare PICSO' clinical trial

Miracor Medical Systems GmbH announced the successful completion of the pilot study of its PICSO® (Pressure-controlled Intermittent Coronary Sinus Occlusion) System, designed to improve acute coronary syndrome (ACS) revascularization following primary percutaneous coronary intervention (PCI). The company will now focus on starting its pivotal RAMSES clinical trial for early commercialization in Europe.

www.miracormedical.com

Intercell announces start of pivotal phase II/III study for pediatric vaccine against Japanese encephalitis

Intercell AG and its partner Biological E. Ltd. announced the start of a pediatric phase II/III study for the vaccine to protect children from Japanese encephalitis. Data from a previous phase II study conducted in 2007 in India by Biological E. with vaccine manufactured at Intercell's Scottish manufacturing site showed that the vaccine has a comparable excellent immunogenicity and safety profile in young children (one year to under three years of age) as in adults, even if only half of the adult dose is applied.

www.intercell.com

Zytoprotec starts a phase I clinical trial for PD-Protec

Zytoprotec develops therapies that enhance the cellular stress response mechanism (cytoprotection). The first product based on this new therapy approach for the treatment of kidney failure, PD-Protec, entered into a phase I clinical trial in February. Zytoprotec will present itself at BIO 2011 in Washington to look for strategic partners for production and marketing.

www.zytoprotec.com

Spantec is certified to the quality management system of medical devices

Spantec offers technology for innovative, electronic feedback systems within diverse areas such as telemedicine, industrial safety, and energy. As of January 31, 2011, TÜV Austria Service GmbH certified Spantac GmbH to EN ISO 13485:2003+AC:2007+AC:2009 – the quality management system medical devices in the scope of design and development, manufacture, installation, service, and distribution of communication systems for telemedicine.

www.spantec.at

Biomay Appoints Rainer Henning as Chief Executive Officer

Biomay announced the appointment of Dr. Rainer Henning as new Chief Executive Officer. Rainer Henning looks back on a 30-year career in the pharmaceutical and biotechnology industry and in venture capital investing. From 2005 to 2010, he was CEO of Fibrex Medical, Inc., a Cambridge based biopharmaceutical company developing peptides for acute care indications, including myocardial infarction, acute lung injury, and transplantation. Holding a PhD in chemistry, he began his career at Hoechst AG. He is the co-inventor of Tritace® and Odrik®, two blockbuster antihypertensives, and the author of over 80 granted patents.

www.biomay.com

Nabriva completes recruitment for phase II of pleuromutilin antibiotic BC-3781

Nabriva Therapeutics, a biotechnology company focused on developing a new class of antibiotics for serious infections caused by resistant pathogens, has completed recruitment of a phase II clinical trial of BC-3781 in acute bacterial skin and skin structure infections. The pleuromutilin BC-3781 belongs to the first generation of pleuromutilins to combine excellent oral and intravenous bioavailability. BC-3781 is highly active against multi-drug resistant pathogens like methicillin resistant Staphylococcus aureus (MRSA).

www.nabriva.com

EMCOOLS: latest development for stroke patients

In the previous year, EMCOOLS started a program to develop a novel cooling device designed for fever reduction in stroke patients. With this device, EMCOOLS has once again taken a pioneering role. The Flex.Pad will be used in the "Mainstream Arm" of the multicenter EuroHyp-study for surface cooling of the body. The Stroke.Pad will be exclusively evaluated in the "Exploratory Arm" of the EuroHYP-study for rapid cooling of the neck and carotid arteries in the out-of-hospital setting.

www.emcools.com

Marinomed's Iota-Carrageenan effective against H1N1

Marinomed Biotechnologie GmbH, a company focused on the development of innovative therapies for respiratory diseases, announced that in vitro and in-vivo tests have demonstrated that Carrageenan is effective as a potent inhibitor of the influenza A virus infection (H1N1). Carrageenan is a polymer derived from red seaweed which helps to create a protective physical barrier in the nasal cavity and has proven to be an effective antiviral in the treatment of the common cold. The research article entitled "Iota-Carrageenan is a Potent Inhibitor of Influenza A Virus Infection" appears online in the open access journal PLoS ONE.

www.marinomed.com

Michael J. Fox Foundation funds AFFiRiS AG to develop Parkinson's vaccine

With a grant of USD 475,000, the Michael J. Fox Foundation is funding preclinical development of a vaccine against Parkinson's disease by AFFiRiS AG. The vaccine, known as PD01, targets the protein alpha-synuclein and might offer for the first time a possibility for a treatment that can slow or stop the progression of Parkinson's disease. The basis of PD01 is the company's AFFITOME® technology, which already delivered, among others, two vaccines from AFFiRiS AG for the treatment of Alzheimer's disease.

www.affiris.com

evocatal and EUCODIS Bioscience enter into collaboration agreement

The industrial biotech companies EUCODIS Bioscience and evocatal announced the formation of an alliance to jointly market the companies' industrial enzyme products, including alcohol dehydrogenases, lipases, and other enzymes. The two companies leverage their knowledge of customers' needs in their respective markets as well as their complementary resources to provide existing and future customers with a broader choice of novel enzymes and related services.

www.eucodis.com
www.evocatal.com

Vela Laboratories announces renewal of GMP certificate for analytical and quality control laboratories

Vela Laboratories, a provider of analytical services to the global biopharmaceutical industry, announced the renewal of the GMP certificate for its analytical and quality control laboratories until 2013. ´Good Manufacturing Practice´ is a body of internationally accepted regulations set forth by EU and US drug agencies. GMP compliance ensures that pharmaceuticals, active ingredients, and medical devices are produced and quality-controlled according to state-of-the-art standards.

www.vela-labs.at

Academia News

Your news placed here:
Vienna-based organizations are invited to e-mail news and press releases to news@lisavr.at to contribute to LISA VR's online news collection and this printed newsflash
www.lisavr.at

IMP & IMBA: The weaponry of salmonellae

Bacteria like salmonellae infect their host cells by needle-shaped extensions which they create in large numbers during an attack. A group of Vienna-based scientists headed by Thomas Marlovits, joint group leader of IMP and IMBA, employed recently developed methods of cryo-electron microscopy. With the help of these methods, they have been able to clarify the structure of this infection apparatus on the near-atomic scale. The exact knowledge of the needles' building plan may help to develop substances that interfere with its function and thus prevent infection.

www.imp.ac.at
www.imba.oeaw.ac.at

MedUni: Peptide prevents tumor growth and metastasis

For certain cells, it is necessary to move inside the body. This applies to immune cells, for example, which have to detect invaders and also tumor cells and render these harmless. Tumor cells often take advantage of this characteristic and "capture" such cells or use the same mechanisms to penetrate into the tissue themselves and form metastases. In a current study, researchers from the Medical University of Vienna have been able to inhibit the migration of cancer cells with a special peptide. This enables new approaches in the battle against tumors.

www.medunivie.ac.at

AIT: Chronic disease management

Experts from the Austrian Institute of Technology developed a cutting edge ICT system with the goal of making a sustainable remote care management of chronic diseases (e.g. diabetes, heart failure) possible. The system is based on a highly secure internet technology platform and communicates with the patient's cell phone. By implementing medical treatment processes, developed in close cooperation with AIT researchers and medical experts, the researchers ensure that their development work is subject to ongoing medical validation. Hereby a next generation "Closed Loop Healthcare" process will be established, thus bridging the gap between patients, physicians and caregivers. To guarantee absolute security of health data, the technologies are based on special security concepts.

www.ait.ac.at/eHealth

Ignaz L. Lieben Prize 2010 and Eva Louise Köhler Research Prize 2010 go to CeMM Researchers

Robert Kralovics, Principal Investigator (PI) at CeMM is to receive the Ignaz L. Lieben Prize 2010 for his discovery of the genetic and molecular basis for a large group of chronic myeloproliferative disorders. And Kaan Boztug, PI at CeMM, was honored with the "Eva Luise and Horst Köhler Research Prize for Rare Diseases". He was successful in research on and development of targeted treatment for children suffering from Wiskott-Aldrich Syndrome. Kaan Boztug received the highly renowned award jointly with an interdisciplinary research team from Germany.

www.cemm.oeaw.ac.at

MedUni Vienna and University of Vienna to set up joint research clusters

The New Year brings innovative forms of cooperation at the university location of Vienna. At MedUni Vienna and the University of Vienna interdisciplinary and inter-university, translational research projects will be launched in six joint research clusters. Based on an international evaluation, the two universities have decided to finance the following projects from the total of 16 full applications:

- Role of imbalanced mRNA stability in the development of inflammation-associated colorectal cancer.
- Shared neural resources for music and language: Verification and clinical exploitation.
- Chalcones and hematological malignancies – a model for the development of a drug optimization platform in malignant diseases.
- Analyzing health data for the evolution of patient treatment processes - pilot project skin cancer.
- Multimodal neuroimaging in clinical neurosciences: Assessment of neurobiological markers for psychiatric disorders.
- Microbial infections & host immune response

Vetmeduni Vienna: DNA double-strand break repair and the evolution of intron density

The density of introns is both an important feature of genome architecture and a highly variable trait across eukaryotes. This heterogeneity has posed an evolutionary puzzle for the last 30 years. Recent evidence is consistent with novel introns being the outcome of the error-prone repair of DNA double-stranded breaks via non-homologous end joining (NHEJ). Here researchers of the University of Veterinary Medicine, Vienna, suggest that deletion of pre-existing introns could occur via the same pathway. They propose a novel framework in which species-specific differences in the activity of NHEJ and homologous recombination during the repair of DNA double-stranded breaks underlie changes in intron density. The paper DNA double-strand break repair and the evolution of intron density by Ashley Farlow, Eshwar Meduri and Christian Schlötterer is published in the January issue of the journal *Trends in Genetics* (2011, Vol. 27, pp. 1-6).

www.vetmeduni.ac.at

New SFB "RNA regulation of the transcriptome" approved by the FWF

The Austrian Science Fund FWF has approved a new SFB (Special Research Program) "RNA regulation of the transcriptome" under the lead of Renée Schroeder at the Max Perutz Laboratories. The new RNA-REG SFB aims at revealing the function of regulatory RNAs, understanding the mechanisms by which these regulations are achieved, and how diverse RNA-mediated processes interconnect to result in the observed phenotypes. Involving 11 research groups from CEMM, GMI, IMBA, IMP, the University of Vienna and the Medical University of Vienna, the new RNA-REG SFB will be funded with approximately EUR 4.3 million for the next 4 years.

TU: Mobility despite paraplegia – at the Vienna University of Technology, mathematics helps patients to walk again

Spinal cord injuries often lead to paraplegia and a life in a wheelchair. Signals from the brain cannot be transmitted to the legs or arms any more. But, the spinal cord is not just a conducting cable. It has complex structures of nerve cells, generating nerve pulses on its own. Scientists at the Vienna University of Technology (TU Vienna) have studied this phenomenon and achieved groundbreaking results, which can make rehabilitation for patients with paraplegia much easier.
Ursula Hofstötter and Karen Minassian, mathematicians from the TU Vienna, developed a method to stimulate nerves with electrodes. Electrical pulses from the electrodes can allow the patients to move their legs again. No surgery is required: the electrodes just have to be attached to the skin.

www.tuwien.at

This list is not exhaustive. Please go to www.lisavr.at for additional news.

Best of Biotech 2010: The Winners

In October 2010, the international life science business plan competition "Best of Biotech" (BOB) – funded by the Ministry of Economy, Family and Youth (BMWFJ) and organized by Austria Wirtschaftsservice (aws) took place for the fifth time.

The attendance numbers at the competition were the highest ever: a total of 25 teams participated in the last phase of the two-staged competition. Researcher teams from all over the world, including Austria, Hungary, Germany, Poland, Singapore as well as the US were submitting business plans. The prize money awarded amounted to a total of EUR 30,000 sponsored by Baxter, Boehringer Ingelheim, and AFFiRis. In addition, the first LISA VR Medtech award in the amount of EUR 10,000 was granted.

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f.l.t.r.: M. Losch (BMWFJ), M. Müller (Chairman of the BOB Jury, MUW), J. Jesenko (Blueline), H. Koinig (Blueline), P. Halwachs (LISA VR), J. Sarx (Austria Wirtschaftsservice)

The first prize (EUR 15,000) was awarded to the young biotech company **AyoxxA** from Singapore. The team of Dr. Andreas Schmidt commercializes a platform that enables the simultaneous measurement of multiple proteins as well as other biomolecular analytes from a single minute volume sample.
The Viennese company **Xiber Science** set up by Sonja Reingruber and Peter Petzelbauer was awarded the second prize (EUR 10,000). The spinoff of the Medical University Vienna develops new peptides to reduce mortality and morbidity of critical care patients.
And the third prize (EUR 5,000) went to the team of Jürgen Jesenko and Horst Koinig. The Carinthian dental care company, **Blueline**, develops and distributes an intraoral 3D scanner, which digitalizes dental impressions and leads to accurate dental replacements. Blueline also prevailed against outstanding competitors from the medical devices industry and was furthermore awarded with the LISA VR Medtech Award in the amount of EUR 10,000.
Four months after the award ceremony, LISA VR interviewed Dr. Schmidt of AyoxxA and asked him about the BOB participation and the company developments afterwards.

LISA VR: How did you become aware of the BOB competition?

If you are a biotech startup in a "small red dot" city state like Singapore, you realize at a very early stage that probably your market, your partners, and potentially investors are not just in front of your door, but actually far away. Europe and the US appeared very early on our screen. Everything else is then just Googling and looking for the right fit…

LISA VR: Can you explain your submitted project in one sentence?

AyoxxA's biochip can detect and quantify hundreds of proteins in a single most minute droplet – Accurately, Reliably, and Rapidly.

LISA VR: Did A yoxA benefit from the participation in BOB respectively from the first prize?

Well, the nice green mega-sized check became the "decoration & inspiration" of our lab and the money is still in our account.
But more seriously: It was very valuable feedback that we got from the jury. Many of them really hit the nail on the head concerning our strengths and weaknesses. I am actually in quite regular contact with some of the people I met during BOB. And finally it has a psychological effect: If you work hard on pushing a "silly research project" to become a serious biotech company, validation is very important if a highly renowned jury puts a stamp of approval on your project and confirms that there is some business substance in what you are doing. So, for us, it was very valuable by all accounts.

LISA VR: How do you rate the differences in business funding between Singapore and Europe?

It's a completely different situation. Fifteen years ago, Singapore basically did not exist as a biotech hub. Many of the research institutes and technology companies here just started. So by now there are quite a few support schemes and government grants available in Singapore. There is also a small but distinct community of private people willing to put their money into biotech and there are several schemes that attracted venture capital firms to set up office here. But, of course, it is still all in an early stage. In Europe, I have the impression that there are quite a number of regional funding schemes as well as VCs, which are actually fairly flexible from Vienna to Amsterdam and Munich to London.
By this time there is even some more great news about AyoxxA: At the beginning of 2011 they were selected as a recipient of

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f.l.t.r.: Dr. Schmidt, AyoxxA (Singapore): Winner of the first prize and Dr. Ehrlich, VP, Global Research and Development, Baxter BioScience

SPRING Singapore's Commercialization Grant TECS in the amount of about EUR 300,000. Furthermore, the Kauffman Foundation listed AyoxxA under the top ten of the 50 most promising startups. And Dr. Schmid was nominated as "Junior Scientist of the year 2010" by the German weekly newspaper "Die Zeit".

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- *www.ayoxxa.com*
- *www.bestofbiotech.at*

Navigation in the data jungle

emergentec launches the BASE and BIO software platforms.

Data generation in molecular biology and clinical research has seen a dramatic boost in the recent past, centrally resting on technological development in miniaturization and high throughput approaches, all leading to the Omics revolution. Generating such content has become relatively easy, but efficient handling, tight integration, and added-value interpretation have become not only a conceptual but also technological challenge. Particularly for translational medicine - aimed at bridging the clinical phenotype and respective pathophysiological (molecular) basis – an integrative approach to data processing promises significant steps forward in overcoming yet unmet clinical needs.
For a decade, emergentec biodevelopment GmbH has been targeting such challenges in a broad spectrum of applied R&D projects together with customers and partners from the Life Sciences industry in Vienna, central Europe, and worldwide. Inspired by the vision to push translational research and development via computational methodologies and tools, emergentec launched the BASE and BIO software solutions for Life Sciences content handling, integration, and development.

The BASE: data handling

Arno Lukas, Founder & Managing Partner: "Before efficient integration and analysis can start in data rich Life Sciences projects, the heterogeneous content has to become available in a structured way in the first place."

Innovation in modern life sciences is fundamentally data driven, spanning research, development, intellectual property, and market information. Typical content in life sciences projects turns out to be extensive, heterogeneous, and related in a specific way. Thus, data handling itself, traceability and documentation has become an essential factor in practice. emergentec addresses these issues with its enterprise software solution BASE. The BASE technology enables management of life sciences content in distributed, multi-user project settings.

Going BIOnd: data integration and analytics

Bernd Mayer, Founder & Managing Partner: "Once the data is available in a structured form, our BIO platform expands annotation, fosters further integration, and consequently improves interpretation."

Putting specific results into the right context is another crucial factor besides content management. Development of diagnostic or prognostic biomarkers, therapeutic targets, or the investigation of specific molecular mechanisms have to be considered in the context of relevant information of scientific literature, from patents, clinical trials, and more. The BIO software solution is an automated information extraction and context visualization framework for gene and protein specific content relevant in applied R&D. BIO conveniently provides linked content to genes and proteins which are related in a neighborhood network.

Leading technology from Vienna for an international research initiative

emergentec coordinates the large-scale integrated European Union FP7 project SysKid (Systems Biology towards novel chronic kidney disease diagnosis and treatment). This project aims to utilize a holistic view on a clinical phenotype for going towards stratified medicine. This project, with a total project volume of EUR 16 Mio, assembles 25 research groups from Europe and North America. SysKid aligns broad molecular data generation and large-scale epidemiology on the clinically highly relevant field of chronic kidney disease in the context of diabetes and hypertension. Structuring and populating the data graph on this disease phenotype holds the promise of early stage risk assessment, followed by more accurate patient stratification, in turn providing the ground for tailored therapy for improving outcome (ref: Bioinformatics for Omics data: Methods and Protocols, B. Mayer (ed), 'Methods in Molecular Biology', Vol. 719, Humana Press (2011)).

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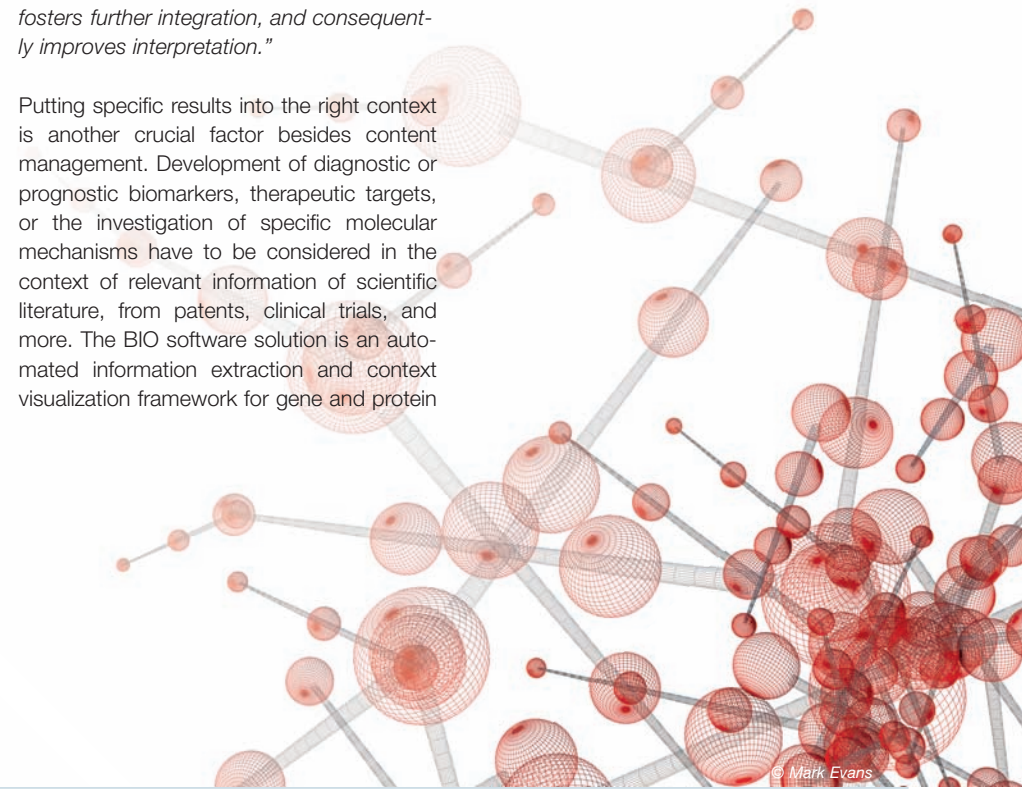
- *www.emergentec.com*
- *www.syskid.eu*
- *http://base.emergentec.com*
- *http://bio.emergentec.com*



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LIFE SCIENCE AUSTRIA **vienna region's newsletter**

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Advanced Services in Vienna: **Quality & Safety**

Quality and safety play an important part in research and development as well as in production. At the life science location Vienna, numerous service providers offer their expertise in compliance with regulatory requirements. Their services range from biosafety assurance, hygiene auditing, and analytical tests to quality assurance through a validated electronic data processing system.

CAS Clean-Air-Service AG is experienced in cleanroom measuring technology, control and consulting in most areas of medicine and manufacturing industry – in particular, in the biotech, pharma, and medtech industries.

Laboratorium für Betriebshygiene GmbH (labh) is a pharmaceutical contract organization offering analytical services in microbiology, as well as GMP and hygiene auditing, consulting and training services. The microbiological analyses cover products and auxiliary materials, such as water and bioindicators, as well as surface and air bioburden. The analytical services include routine analyses, validation studies and environmental trouble-shooting in the pharmaceutical and food industry.

Mycosafe Diagnostics GmbH, a GMP-certified service provider, is one of the few suppliers worldwide specializing in mycoplasma biosafety assurance and prevention control for cell lines as well as biological and biopharmaceutical products, including vaccines and cell therapy applications.

***ofi* the Austrian Research Institute for Chemistry and Technology** is a qualified partner for testing and analysis, monitoring, quality assurance, and certification. It offers a broad range of tests including chemical and physical tests, microbiological tests and in-vitro toxicology testing. Furthermore, ofi is an expert for development and testing of pakkaging.

Vela Laboratories offers a broad portfolio of analytical testing and consulting for preclinical & clinical development of protein and immune therapeutics including vaccines and monoclonal antibodies in a GMP-related environment.

vidavis has developed a validated electronic system for capturing and processing the documentation essential to GMP production, including everything from standard operating procedures (SOPs) to management of test plans and raw data. Every stage in the life of a document – from creation through chekking to release – is carried out electronically. Once authorized for release, documents are stored in a publication system, so that only the current version is available. The entire history of each document is recorded in an audit trail and securely archived.

ViruSure GmbH is a privately owned GMP/GLP certified service provider specializing in virus and prion safety testing of biopharmaceutical products. ViruSure offers client-focused contract testing services with the expertise to ensure meeting the regulatory requirements for safety testing. Both the in vivo and in vitro testing facilities operate under a state-of-the-art risk-based quality management system.

Do you want to know more about advanced services in Vienna? Order LISA VR's booklet on **Production Capacities, Technologies and Services in Vienna – Focusing on Biotech & Pharma**

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