2021

Annual Report

vetmeduni vienna

The nose is the sensory organ in animals and humans. Generally, smelling is considered less important than seeing, hearing and touching. Nonetheless, in animals the nose has many important functions: It helps to select the best food, assists with the mating process, warns of dangers, influences social behaviour and facilitates communication.

Eight highly sensitive noses will guide you through this annual report 2012. They belong to animals that the researchers, clinical practitioners as well as teachers and students of Vetmeduni Vienna come into contact with.

vetmeduni vienna

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Content

Opening Words

2012

Federal Minister Karlheinz Töchterle

The University of Veterinary Medicine, Vienna, founded in 1765 by Maria Theresa as the first such institution in the German-speaking world, was even in its early days the only academic institution of its kind. Over the years, it has grown into an attractive university, further cementing its reputation as a specialised institution for higher education.

The university currently provides education for more than 2,000 students, distinguishing itself by its established international cooperation initiatives and continuous further development. In the fall semester 2012/2013 alone, three new Master's courses were added to the roster of academic programmes.

I am pleased that the University has produced the Development Plan 2020 as a guideline for future developments, outlining the direction for the future and the main endeavours envisioned by the University. One ambitious project which has already been realised was the establishment of the Messerli Research Institute. This institute is studying human-animal-interactions and their foundations in relation to areas such as ethics, comparative medicine and cognition as well as animal behaviour.

The positive international evaluation performed by international experts from the European Association of Establishments for Veterinary Education attests to the excellent reputation of the University of Veterinary Medicine, Vienna.

Two members of the University received one of the competitive ERC Grants each, presented by the European Research Council (ERC), further underlining the excellent performance of the University.

I wish the University management, as well as the faculty, all researchers and administrative staff the endurance and motivation to achieve their goals also in 2013.

For students, I wish a pleasant and exciting, as well as an educational period and much success with their studies.

Prof. Karlheinz Töchterle

Federal Minister for Science and Research

University Council

Ready for international competition

Having a competitive edge at an international level nowadays is not only a hot topic in business. Of course, for universities economic gain cannot be the yardstick for success; this is rather about competition among the brightest luminaries.

Vetmeduni Vienna is well-prepared for this competition of excellence. Winning the bid in the international call for the establishment of the Messerli Research Institute is a shining example of how highly the University's research output is regarded. The integration of the Konrad Lorenz Institute of Ethology into Vetmeduni Vienna has further raised the international profile and reputation of the University. Along with extending its expertise in ethology, the University is now able to strengthen its evolutionary biology approach to challenges in veterinary medicine.

One of the milestones toward further cementing the University's international profile has been achieved with the successful accreditation by the European Association of Establishments for Veterinary Education. The aim is to draw the brightest minds to Vetmeduni Vienna, both in research and teaching. The revised curriculum forms the foundation for this goal.

All this can only be achieved with the necessary funding. The performance agreements ensure the basis for such activities. To turn all visions for further development and international positioning into reality, considerable financial resources are needed.

As the University Council, we see ourselves – aside from our role as a regulatory body – as a strategic partner that seeks to advance the success of the University.

We especially thank Helmut Pechlaner, who has considerably shaped Vetmeduni Vienna over the recent academic period, thus preparing it for the future.

On behalf of the University Council, I am pleased to announce that we will continue to strive together with the University management, the faculty and all researchers, staff and students to turn Vetmeduni Vienna into THE European hot spot for veterinary medicine.

Edeltraud Stiftinger

Head of University Council,
Vetmeduni Vienna

Helmut Pechlaner, Edeltraud Stiftinger, Joachim Hauber, Claudia Reusch, Bernhard Url, Walter Obritzhauser (from left to right)

Editorial

2012

Safely towards the future

A year full of milestones is behind us, and you are holding a glimpse of those 365 successful days in your hands. Just before the end of the year, the Performance Agreement for 2013 to 2015 was successfully negotiated with the Austrian Federal Ministry of Science and Research. With a view to the future of our institution, this helps to secure appointments – as outlined in the Development Plan 2020 – and the implementation of envisioned main targets, such as the new curriculum in Veterinary Medicine.

On the **Development Plan:** The strategic foundations for our University were laid in the course of an intensive work and discussion process lasting several months. All committees and panels have collaborated jointly, including the Senate, the University Council, the Student Union, the Works Council, the Equal Opportunities Working Party, representatives from Central Services and their affiliated offices. The result is a strategy paper defining all necessary undertakings in teaching, research and scientific services and paving the way towards the future. These future undertakings are quite ambitious. To implement them requires courage, willingness to initiate and effect change and the cooperation of all.

The Europe-wide **accreditation** by the **European Association of Establishments for Veterinary Education (EAEVE)** proves that the foundations have been laid for a forward-looking university that remains attractive and that the quality strategy has borne fruit.

In 2012, the EAEVE evaluated the areas of education and clinical training (stage 1) as well as for the first time quality management of university-wide procedures (stage 2). EAEVE concluded the following: no major deficiencies and full accreditation. The University of Veterinary Medicine, Vienna ranks high in a Europe-wide comparison and belongs to a handful of universities of veterinary medicine that have received full accreditation. This international seal of quality attests to the sustainability and efficiency of the quality policy.

But it is also true that: The evaluation and the resulting quality assurance can only form the basis for continuous further development of our University. In this sense, our achievements motivate us to face and overcome future challenges.

We thank all partners who have accompanied us and supported Vetmeduni Vienna in its pioneering role. We hope you will also remain loyal to us in the future, for the responsibility of benefitting animals and humans needs a strong network and reliable partners.

Sonja Hammerschmid
Rector

Otto Doblhoff-Dier
Vice-Rector for Research and International Relations

Josef Ebenbichler
Vice-Rector for Resources

Petra Winter
Vice-Rector for Study Affairs and Clinical Veterinary Medicine

2012

Vetmeduni Vienna at a glance

„Responsible teaching, visionary research, ambitious healing“

The University of Veterinary Medicine, Vienna is the only academic, educational and research institution of veterinary medicine in Austria. Its goals include safeguarding animal health by providing excellent education for veterinarians and being in the vanguard of research in veterinary medicine and scientific services. It contributes to the protection of human and animal health and the production of healthy foodstuff. The animal hospital with its university clinics welcomes animal owners 24 hours a day, all year round.

Rectorate

- Dr Sonja Hammerschmid, Rector
- Prof. Otto Doblhoff-Dier, Vice-Rector for Research and International Relations
- Josef Ebenbichler, Vice-Rector for Resources
- Prof. Petra Winter, Vice-Rector for Study Affairs and Clinical Veterinary Medicine

Mission and core values

- Mission statement: responsible teaching, visionary research and ambitious healing
- Core values: dedicated – competent – responsible

Areas of research

The University of Veterinary Medicine, Vienna conducts research mainly in the following areas:

- Animal health
- Preventative veterinary medicine
- Comparative medicine
- Animal models
- Public health services
- Food safety
- Animal husbandry, animal welfare and animal ethics
- Organismic biology and biodiversity

Staff (as of 12/31/2012)

- 1.218 staff
- out of whom 648 are academics
- including 39 professors

Students (as of 1/15/2013)

- 2.286 registered students
- 2.046 degree students
- 1.648 female degree students
- 1.337 Austrian degree students

Degree programmes (as of 10/1/2012)

- Veterinary Medicine (Diploma and doctoral degree programmes)
- Biomedicine and Biotechnology (Bachelor‘s and Master‘s programmes)
- Equine Science (Bachelor‘s programme)
- European Master in Comparative Morphology
- Interdisciplinary Master in Human-Animal Interactions
- Wildlife Ecology and Wildlife Management (Master‘s programme)*
- PhD programme

* in cooperation with the University of Natural Resources and Life Sciences, Vienna (BOKU)

Training courses and continuing education (as of 10/1/2012)

- Applied Cynology
- Introduction to Laboratory Animal Science (FELASA Category B)
- Animal-Assisted Therapy and Animal-Assisted Support Measures
- Animal Physical Therapy, Rehabilitation and Physiotherapy for Small Animals and Horses
- Functional Claw Trimming
- Farriery and Claw Trimming

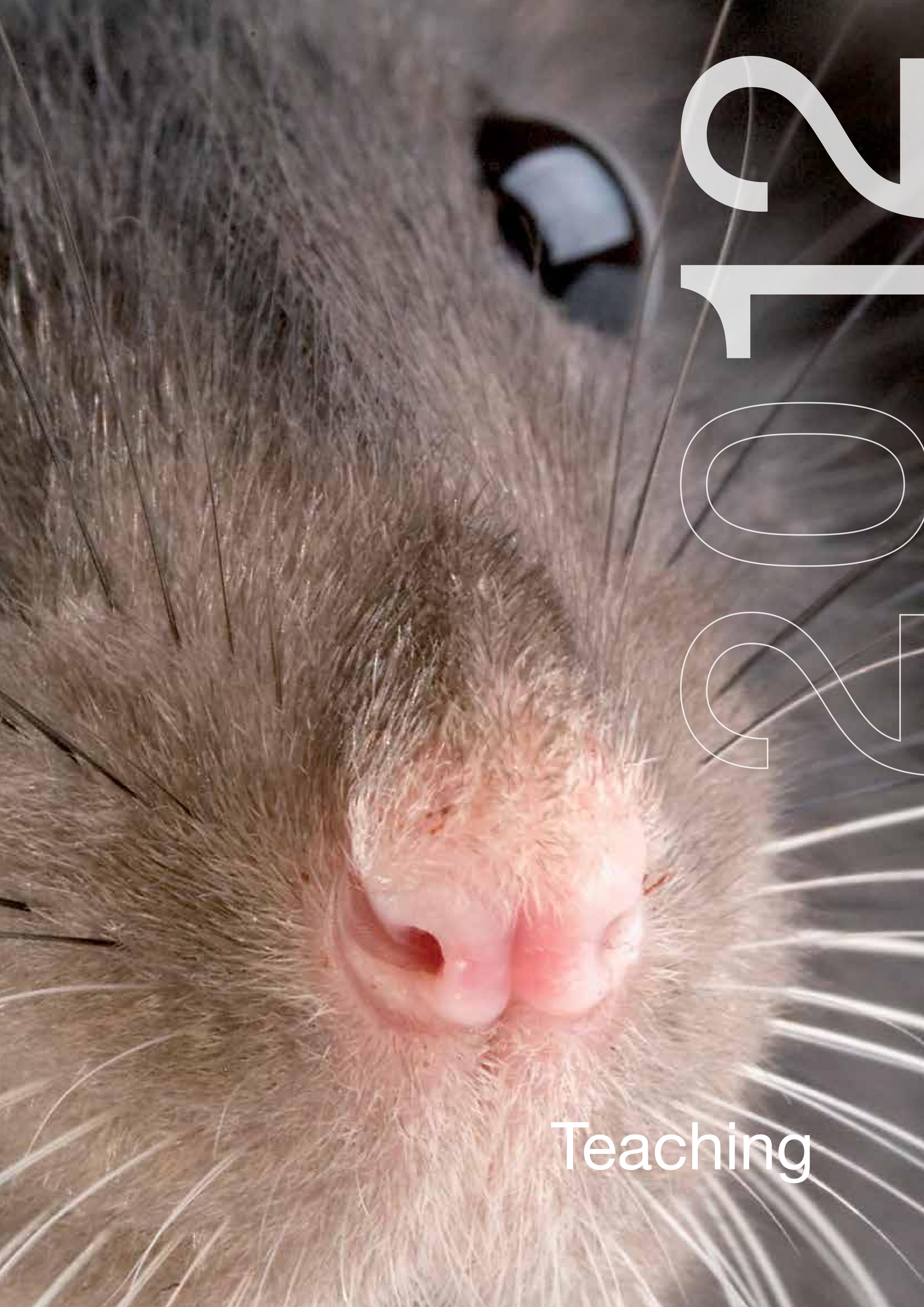
Internships

- Small Animal Medicine
- Equine Medicine
- Ruminant Medicine
- Reproductive Medicine

Residency programmes

According to the European Colleges of the European Board of Veterinary Specialisation (EBVS) residencies are internationally recognised postgraduate specialisation programmes for veterinarians. The University of Veterinary Medicine, Vienna offers the following residency programmes:

- European College of Animal Reproduction (ECAR)
- European College of Bovine Health Management (ECBHM)
- European College of Equine Internal Medicine (ECEIM)
- European College of Porcine Health Management (ECPHM)
- European College of Poultry Veterinary Science (ECPVS)
- European College of Veterinary Anaesthesia und Analgesia (ECVAA)
- European College of Veterinary Clinical Pathology (ECVCP)
- European College of Veterinary Internal Medicine Companion Animals (ECVIM-CA)
- European College of Veterinary Internal Medicine Companion Animals, Oncology (ECVIM-CA, Oncology)
- European College of Veterinary Ophthalmology (ECVO)
- European College of Veterinary Pathology (ECVP)
- European College of Veterinary Surgery, Small Animal Surgery (ECVS)
- European College of Veterinary Surgery, Large Animal Surgery (ECVS)
- European Veterinary Parasitology College (EVPC)


2012
Teaching

With a focus on students

Practical, independent working, excellent research and internationality have long been at the core of the study and continuing education programmes of the University of Veterinary Medicine, Vienna. In 2012, the list of study programmes has been extended further. The new Master's programmes Interdisciplinary Master in Human-Animal Interactions and European Master in Comparative Morphology, both taught in English, reflect the international approach of the University of Veterinary Medicine, Vienna. Starting with this academic year, a new Master's programme in Wildlife Ecology and Wildlife Management is being offered in cooperation with the University of Natural Resources and Life Sciences, Vienna.

In 2012, the European Association of Establishments for Veterinary Education (EAEVE) attested to the high quality of the education provided by Vetmeduni Vienna by giving internationally recognised accreditation. Internal evaluation and incentives spur continuous further development and improvement in the area of teaching. The most suitable students are selected in a multi-stage admission procedure. Vetmeduni Vienna conducts on-campus interviews together with veterinary practitioners. The curriculum for the Diploma programme in Veterinary Medicine is currently under revision. The aim is to encourage independent learning and to prepare students better for the requirements of the labour market.

New study and training programmes

Interdisciplinary Master in Human-Animal Interactions

In the academic year 2012/2013, the University of Veterinary Medicine, Vienna launched the Master in Human-Animal Interactions (taught in English), offering a comprehensive and research-based education in a variety of areas pertaining to human-animal interactions. By providing students with theoretical and methodological expertise in the relevant fields of the humanities and natural sciences and by endowing them with the ability to critically reflect upon the knowledge they acquire, the programme helps to improve the intricate interactions and relationships between humans and animals.

European Master in Comparative Morphology

With the academic year 2012/2013, five European universities including Vetmeduni Vienna have started offering the European Master in Comparative Morphology (EUCOMOR) taught in English. This Master's programme is completed at a minimum of two participating universities and via e-learning. The theoretical foundations are complemented with practical skills associated with the comparative morphology of vertebrates as well as microscopic techniques and imaging techniques. This study programme is funded by the EU as an Erasmus Mundus programme.

Master in Wildlife Ecology and Wildlife Management

In the academic year 2012/2013, Vetmeduni Vienna introduced a new interdisciplinary Master's programme in Wildlife Ecology and Wildlife Management in cooperation with the University of Natural Resources and Life Sciences, Vienna. Aside from the theoretical foundations of wildlife ecology, this course also teaches skills needed to successfully manage various wildlife species within the dynamic interplay between ecology, economy and socio-politics. Graduates are trained to consult government offices, educational institutions and various interest groups in issues pertaining to the protection of species and the economic exploitation of wildlife.

New curriculum in veterinary medicine

With the revision of the curriculum for the Diploma programme in veterinary medicine, Vetmeduni Vienna seeks to strengthen the emphasis on pre-clinical and clinical subjects and to teach clinical expertise (propaedeutics) in theory and practice as early as the first stage of studies. The new curriculum is based on the “student centred learning” approach. Students are trained to use their academic faculties from the beginning in a targeted manner. They are encouraged to act responsibly and actively participate in their own learning.

Much effort was invested into the development of the new curriculum in 2012. Fifteen educational working groups developed in an intensive and dedicated process interdisciplinary learning outcomes and assessment modes. The courses were then planned based on these teaching modules.

Developing confidence through VetSIM

The VetSIM (Simulating Vet’s Life) skills lab was launched in June 2012 at Vetmeduni Vienna. Trainee veterinarians are able to train skills there for future clinical practice. The 180 m² skills lab features an operating room, a test laboratory and a treatment room where students can practice interviews with animal owners with the help of audio-visual media. VetSIM is the first training centre of its kind in the German speaking world and is available to students any time who wish to practice their skills. Students gain experience and confidence and are prepared in the best way possible for dealing with animal patients and their owners.

Students in the training centre VetSIM and during clinical exercises

Practicing veterinarians assist with admission procedure

Admission to Vetmeduni Vienna is based on a multi-stage admission procedure. Following the online application, written aptitude test and review of transcripts and previous study-related achievements, 75 per cent of all study places are assigned according to the ranking of the applicants. The remaining 25 per cent are assigned after personal interviews. The personal interviews with prospective students were conducted by Vetmeduni Vienna faculty and students as well as practicing veterinarians from various professional fields. In 2012, the following veterinarians were present at the admission interviews: Berthold Grassauer, Dr Johannes Hofer, Raphael Höller, Dr Sonja Huber-Wutschitz, Dr Wigbert Rossmanith, Manuela Schludermann, Dr Peter Wagner, Dr Constanze Zach.

Tuition fees (re) introduced

Vetmeduni Vienna reintroduced tuition fees in the fall semester 2012/2013. This new regulation affects non-EU students and long-term students. They are required to pay 363.36 Euro per semester which is equal to the amount determined in the old tuition regulation. Proceeds from reintroduced tuition fees will be allocated for teaching and thus be of benefit to students. Part of the proceeds will be allocated for a special social fund operated by the Student's Union of Vetmeduni Vienna for special cases of hardship.

Evaluation and continuous development

New evaluation model

Evaluation of courses at Vetmeduni Vienna was revised in the fall semester of 2012/2013 based on the evaluation model proposed by the University of Graz. In line with the Bologna Declaration the new model focuses on acquisition of competences by students. The learning outcomes and skills by students are compared to the learning targets defined by lecturers.

The new evaluation model helps to assess the capacity to act in the areas of professional expertise, methodology, individual and social competence. Various evaluation forms are available for different types of courses to meet their various needs. Compared to a traditional teacher-centred lecture, an interactive course (e.g. seminar, conversatorium) conveys not only professional and methodological expertise, but also social competence and soft skills. Laboratory exercises focus on acquiring application-oriented skills.

Lecturers can now also fill out an optional evaluation form. They can thereby direct the focus of the course evaluation to areas and contents of the course that they deem relevant. By comparing responses from students and lecturers, lecturers can assess whether the envisioned learning outcomes of the course have been achieved.

KELDAT – Focus on skills and didactics

KELDAT, the Centre of Excellence for E-Learning, Didactics and Educational Research in Veterinary Medicine, was established in February 2012. Vetmeduni Vienna is cooperating with all German-speaking institutions of veterinary medicine in Germany and Switzerland in this three-year project funded by Volkswagen Foundation and Mercator Fund. The main goal of this joint project is the further improvement of education and postgraduate education in veterinary medicine.

Within KELDAT, Vetmeduni Vienna is responsible for coordinating the sub-project Assessment of competence acquisition in the study of veterinary medicine. For this project, Vetmeduni Vienna launched a research cooperation with the University of Vienna (Department of Economic Psychology, Educational Psychology and Evaluation headed by Prof. Christiane Spiel). The aim of the project is to develop and test a model for Vetmeduni Vienna to continuously and independently evaluate and further develop its curriculum. In the academic year 2012/2013, the evaluation tools are to be put to the test in a pilot project.

Campus assessment

The European Association of Establishments for Veterinary Education (EAEVE) evaluates universities and faculties of veterinary medicine on a regular basis. Ten international experts for veterinary medicine and quality assurance visited Vetmeduni Vienna for a week in November 2012 to assess the quality of the education. The EAEVE team evaluated internal processes and procedures, inspected clinics and institutes and interviewed students and staff. In addition to the areas of education and clinical training (stage 1), university-wide core processes and procedures associated with quality management and assurance (stage 2) were also evaluated for the first time last year. Vetmeduni Vienna passed the two-stage evaluation and the team of experts was very impressed.

This evaluation facilitates Europe-wide recognition of degrees in veterinary medicine and is a quality seal for the University. Only five out of 98 universities of veterinary medicine in Europe have attained until now accreditation to such extent. After receiving accreditation by the EAEVE, the University of Veterinary Medicine, Vienna is also one of the first universities in Austria to have already completed the statutory requirement of external evaluation of its quality management system.

Awards presented to teachers and students

Honours for successful teaching

To honour outstanding achievements in teaching, every year Vetmeduni Vienna bestows awards upon the best instructors, teachers and students. In 2012, applications by candidates were welcomed for the first time to be rated by a jury. The winners received a prize sponsored by the Department of Culture of the City of Vienna.

Dr Johann Huber (Junior Teacher) and Prof. Sonja Franz (Senior Teacher) each received a Teacher of the Year award. The category Instructor of the Year honours practitioners of veterinary medicine who provide training to students in the context of an internship. Dr Werner Hochsteiner was the recipient of this award in 2012. The Students of the Year awards were bestowed upon students of the programmes in Veterinary Medicine, Equine Science as well as in Biomedicine and Biotechnology – the recipients were: Pauline Svolba, Elodie Weber and Friederike Steudle.

Vetucation®-Award for ambitious e-learning projects

The Vetucation®-Award is given to dedicated teachers once a year for their efforts to modernise education by introducing online courses and new media. In 2012, the jury comprised of students, the Vice-Rector for Study Affairs and Clinical Veterinary Medicine and representatives of the e-learning team, honoured representatives of the Clinic for Ruminants: Prof. Thomas Wittek and his team produced 22 short films with sound to demonstrate cattle examinations in order to prepare students for propaedeutic and clinical exercises. Other Vetucation®-Award 2012 recipients included Prof. Ingrid Walter and her team from the Institute of Anatomy, Histology and Embryology. They developed an e-lecture for the international European Master of Comparative Morphology (EUCOMOR) study programme, combining Power Point slides and drawings with animation and audio commentary.

Senior Teacher of the Year Dr Sonja Franz

Junior Teacher of the Year Dr Johann Huber

Grants

Each year, Vetmeduni Vienna supports students who write their doctoral thesis with Vetmeduni Success grants. In 2012, grants to the value of 12,000 Euro each were given to Therese Strasser, Clinical Unit of Small Animal Surgery, Stephanie Christina Talkner, Institute of Immunology, Julia Kattlun, Clinical Unit of Fish Medicine and Ulrike Pfeiffenberger, Institute of Laboratory Animal Science.

Every year, the Friends of the University of Veterinary Medicine, Vienna award three merit-based scholarships for outstanding study achievements. In 2012, grants to the value of 1,000 Euro each were presented to the students Agnes Hufnagl, Judith Köchler and Marilies Wieser.

Golden doctorate titles

In the autumn of 2012, the University of Veterinary Medicine, Vienna awarded golden doctorates to alumni who graduated 50 years ago. Participants of the award ceremony included: Dr Adolf Adamelis, Dr Erich Bals, Dr Uri Bendheim, Dr Heinrich Decker, Dr Ingrid Decker, Dr Karl Geyrhofer, Dr Herbert Lazarek, Dr Franz Pranz, Dr Asterios Promussas, Dr Günther Schneck, Dr Michael Schönbaum, Dr Alfred Schumacher, Dr Johann Stifter, Dr Josef Stolz, Dr Johannes Uray.

Golden doctorate recipients

Key figures

Applicants for courses of study

2012	University applicants			Admissions		
	Females	Males	Total	Females	Males	Total
Biomedicine and Biotechnology (Bachelor's programme)	89	37	126	18	11	29
Biomedicine and Biotechnology (Master's programme)	37	22	59	13	5	18
Comparative Morphology (Master's programme)	1	3	4	0	0	0
Human-Animal Interactions (Master's programme)	37	3	40	15	0	15
Equine Science (Bachelor's programme)	93	5	98	32	3	35
Veterinary Medicine (Diplomstudium und Doktoratsstudium)	1,056	251	1,307	167	53	220
Wildlife Ecology and Wildlife Management (Master's programme)*						
Total	**1,313**	**321**	**1,634**	**245**	**72**	**317**

*The admission procedure for the Master's programme Wildlife Ecology and Wildlife Management is managed by the University of Natural Ressources and Life Sciences, Vienna.

Number of students (degree students, non-degree students and students from mobility programmes)

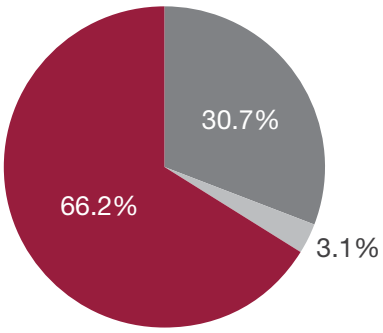
		Fall semester 2012/2013			Fall semester 2011/2012			Fall semester 2010/2011		
	Nationality	Females	Males	Total	Females	Males	Total	Females	Males	Total
Freshmen students	Austria	199	52	251	187	44	231	188	37	225
	EU	113	34	147	122	30	152	115	25	140
	Third countries	11	9	20	8	7	15	8	6	14
	Total	**323**	**95**	**418**	**317**	**81**	**398**	**311**	**68**	**379**
Second or higher semester students	Austria	1,047	215	1,262	1,050	214	1,264	1,137	237	1,374
	EU	459	95	554	446	88	534	447	85	532
	Third countries	21	31	52	25	32	57	29	34	63
	Total	**1,527**	**341**	**1,868**	**1,521**	**334**	**1,855**	**1,613**	**356**	**1,969**
Students total		**1,850**	**436**	**2,286**	**1,838**	**415**	**2,253**	**1,924**	**424**	**2,348**

Number of graduations

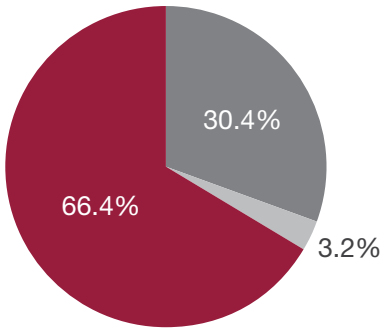
Type of programme	Academic year 2011/2012		
	Females	Males	Total
Diploma degree programme Veterinary Medicine	146	31	177
Doctorate degree programmes	36	8	44
Bachelor's degree programme Equine Science	35	2	37
Bachelor's degree programme Biomedicine and Biotechnology	9	4	13
Master's degree programme Biomedicine and Biotechnology	8	0	8
Total	**234**	**45**	**279**

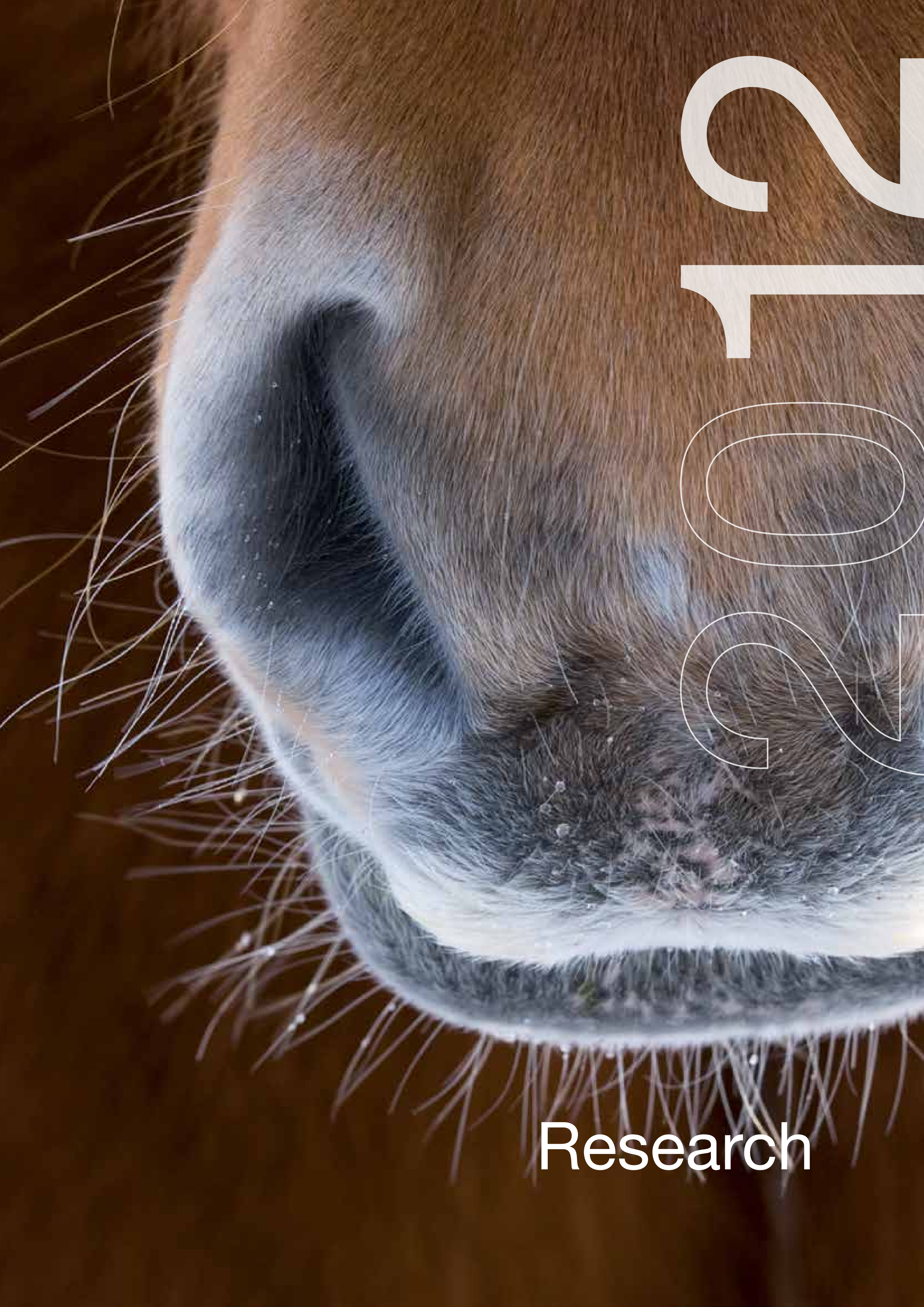
Students based on origin (degree students and non-degree students)

Fall semester 2012/2013



Fall semester 2011/2012





Research

With a view to society

The University of Veterinary Medicine, Vienna stands for excellent basic research in veterinary medicine as well as applied and clinical research. The University's main areas of research are of high societal relevance and cover topics such as animal health and preventive veterinary medicine, veterinary public health and food safety. The University of Veterinary Medicine, Vienna conducts basic scientific research in the field of animal welfare and evaluates its relevance to animal husbandry, animal protection and animal ethics.

In 2012, Vetmeduni Vienna initiated many new research projects and acquired additional sources of external funding. It was especially gratifying to receive research grants provided by the renowned European Research Council (ERC) for two Vetmeduni Vienna projects. The new Messerli Research Institute conducting interdisciplinary research into human-animal interactions began its operation. Vetmeduni Vienna continued its efforts in 2012 to promote young academics, the most precious assets for the future of the University.

Main areas of research

Vetmeduni Vienna further delineated its research profile in 2012. Its main area of expertise still remains veterinary medical research. Cooperation between basic research and applied clinical research has been intensified.

The research activities of Vetmeduni Vienna are based on the research profile areas and focus on the following fields of study:

- Endocrinology
- Signal transduction, especially Jak-Stat signalling pathway and transport processes
- Wildlife ecology

- Infectious medicine, fish
- Infectious medicine, poultry
- Infectious medicine, swine
- Wildlife medicine

- Population genomics
- Reproductive medicine and reproductive biotechnology
- Transgenic mouse models

- Food microbiology
- Risk assessment for animal-based foods

- Cognition
- Behavioural mechanism and behavioural ecology

In its Development Plan 2020, which was finalised in 2012, Vetmeduni Vienna has additionally defined the following areas of research:

- Motion analysis and regenerative medicine
- Nutritional physiology
- Laboratory animal medicine
- Translation of population genomics (farm animals, small animals and horses)
- Comparative medicine for small animals, horses, with a focus on oncology and allergology
- Animal welfare and animal ethics

ERC Starting Grant for Dr Friederike Range

Examples of successful research

Evolutionary research with ERC grant

In 2012, Prof. Christian Schlötterer, Head of the Institute of Population Genetics at the University of Veterinary Medicine, Vienna, received one of the prestigious ERC Advanced Investigator Grants. With a research budget of 2.5 million Euro, over the next five years, Schlötterer and his team will research how animals can adapt to changing environmental conditions. Studying a natural fruit fly population, the research team will observe under laboratory conditions how this population can adapt to changing temperatures. Genetic changes (DNA), changes to the gene products (RNA) and the appearance of the flies (phenotype) will be studied over a five-year period. An interdisciplinary team of statisticians, bioinformaticians and biologists will work together on analysing the enormous amount of data.

Prof. Christian Schlötterer receives ERC Advanced Grant

ERC Grant for cognitive researcher

In 2012, another ERC grant was awarded to Dr Friederike Range. The cognitive researcher of the Messerli Research Institute at the University of Veterinary Medicine, Vienna received one of the esteemed Starting Grants awarded by the European Research Council (ERC). Range will use the 1.3 million Euro grant over the next five years to investigate the behavioural mechanisms by which dogs and wolves cooperate with other members of their species as well as with humans. ERC Starting Grants are intended to support outstanding researchers in Europe as they build up their own research groups in order to enable them to pursue their research independently.

Austrian Science Fund grant for Jak-Stat Signalling

In December 2012, the Austrian Science Fund decided to continue funding the Jak-Stat Signalling special research programme in which the University of Veterinary Medicine, Vienna is largely to collaborate for a further three years. The research platform is dedicated to studying a biomolecular signalling pathway in the cell which contributes to the integrity of the organism in a variety of ways. Disturbances of this signalling avenue cause diseases such as chronic inflammation, autoimmune diseases and cancer in mammalian organisms, including humans. The spokesman of the research network, which comprises six basic research-oriented groups, is Prof. Mathias Müller of the University of Veterinary Medicine, Vienna.

Setting the path for the future

New institute for human-animal studies

In the spring 2012, the Messerli Research Institute was inaugurated as a cooperation between Vetmeduni Vienna, the University Vienna and MedUni Vienna. This new institute is studying human-animal interactions and their foundations in relation to areas such as ethics, comparative medicine and cognition as well as animal behaviour. The institute distinguishes itself by its strong international focus. Research findings form an integral component of academic education at the institute and are also integrated into the new Master's programme, Interdisciplinary Master in Human-Animal Interactions. Research conducted by the Messerli Research Institute provides valuable guidance with the ethical handling of animals.

Inauguration of Clever Dog Lab

At the new Clever Dog Lab of Vetmeduni Vienna, a team of cognitive biologists headed by Prof. Ludwig Huber has since September 2012 been researching cognitive and emotional capabilities of dogs as well as their relationship with humans. For this purpose, the new test premises are equipped with state-of-the-art equipment including touch screens, video analysis systems and eye-tracking devices. The Clever Dog Lab is a joint establishment operated by the Department of Comparative Cognition at the Messerli Research institute at Vetmeduni Vienna and the Clever Dog Lab Vienna association.

The Messerli Research Insitute is inaugurated. From left to right: Spokesperson of the Institute Ludwig Huber, Rector Heinz W. Engl, Vize President Messerli Foundation, Federal Minister Karlheinz Töchterle, Rector Sonja Hammerschmid, Rector Wolfgang Schütz

Guests of the award ceremony as curious observers

Nuts for Research

The Nuts for Research initiative launched in 2012 for academics informs regularly about current funding programmes and proposals. Staff from funding organisations such as FFG (Austrian Research Promotion Agency) and WWTF (Vienna Science and Technology Fund) as well as tax consultants and Central Services staff provide information and assistance with administrative procedures relating to project funding. In direct cooperation with experts, issues ranging from the application to the calculation and balancing processes are addressed.

Visit by Nobel Prize laureates

In October 2012, biochemist Prof. Ada Yonath and biophysicist Prof. Sidney Altman, both of them Nobel laureates for chemistry, visited Vetmeduni Vienna. They presented their revolutionary discoveries and gave an outlook on possible medical applications. Ada Yonath received the Nobel Prize in chemistry together with Venkatraman Ramakrishnan and Thomas Steitz in 2009. Yonath was the first to shed light on the chemical structure of ribosomes, the site of protein synthesis in cells. Sidney Altman received the Nobel Prize in chemistry in 1989 together with Thomas R. Cech. Altman was the first to discover that ribonucleic acid (RNA) is not only a carrier of genetic information, but can also act as an enzyme. He is considered the discoverer of the RNA enzyme Ribonuclease P (RNase P) and its effect. The Nobel Prize winners were available for discussion and informal chats after their presentations and during their campus visit.

Prof. Ada Yonath and Prof. Sidney Altman at Vetmeduni Vienna

Scientists as inventors

Industrial cooperation for healthy lamas

New World camelids such as lamas and alpacas are experiencing a surge in popularity in Austria. Health problems such as frequently occurring intestinal parasites are not easy to treat in lamas and related species. Drugs for this species are scarce and their application is difficult. A team from Vetmeduni Vienna has developed a paste that can be used for lamas and alpacas if they are infected by parasites such as liver flukes. With a view to promising market opportunities, Richter Pharma could be recruited as distribution partner for this anti-parasite paste. Developers Prof. Sonja Franz (Clinical Unit of Ruminant Medicine), Prof. Agnes Dadak (Unit of Clinical Pharmacology) and Andreas Liebhart (Pharmacy) applied for a patent for the paste. For this development the team was presented with the Inventor of the Year award by Vetmeduni Vienna.

Innovation for horseshoes

Another example of successful technology transfer was demonstrated at the Equine Clinic. Prof. Theresia Licka together with farrier Rudolf Pellkofer developed an innovative hoof protection, namely segmental horseshoeing. The plastic shoeing, composed of four segments, can be individually adapted to the hooves and provides support to the horse after orthopaedic treatment. Alternatively, it serves as a preventative measure by providing adaptive shock absorption along the frog and the bearing edge. Segmental horseshoeing is gentler on the lower joints such as the hoof, pastern and fetlock because it absorbs impact. The individual segments are screwed onto a connecting iron and can be easily replaced by the horse owners in case of wear and tear or if it needs change.

After submitting a patent application, a cooperation partner from the world of business was quickly found. German company GM GmbH, headquartered in Munich and specialised in processing plastics, bought the world-wide distribution license for this product innovation and has developed a prototype for serial production. Together with distribution partner Horst Weiss GmbH, the product is to be launched for the Austrian market in 2013.

A variety of research

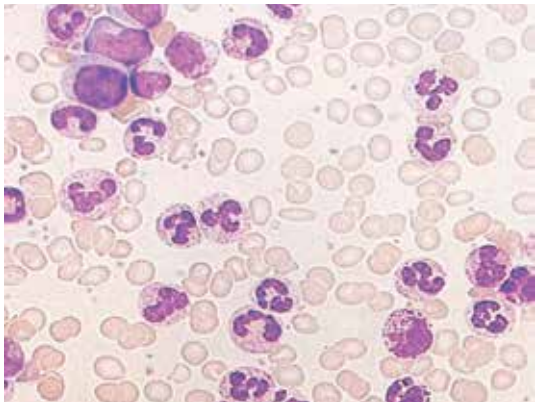
Scientists from a wide range of disciplines are researching at the Vetmeduni Vienna. A selection of projects for which funding was granted in 2012 illustrates this variety.

New therapeutic approaches for lymphoid tumours

In a project supported by the FWF (Austrian Science Fund), Prof. Veronika Sexl (Institute of Pharmacology and Toxicology) is investigating the interaction between the proteins CDK6 and p16INK4a. Cyclin-dependent kinases (CDKs) are important in the regulation of the cell cycle, i.e. for forming new cells. If the tight control of CDKs is broken, the result may be uncontrolled cell growth and tumour formation. An increased amount of one of the CDKs, CDK6, is frequently found in lymphoid tumours. The protein p16INK4a is known to inhibit the cell cycle and to have a central role in the aging of stem cells. Sexl will test whether p16INK4a influences aging by inhibiting CDK6 and will investigate the significance of the interactions between CDK6 and p16INK4a in the initiation of lymphoid tumours. The results should enhance our understanding of the molecular basis of the formation of lymphoid tumours and thereby help optimize the therapeutic use of CDK6 inhibitors.

Researching the influence of reactive aldehydes on uncoupling proteins

Free radicals and their by-products, such as reactive aldehydes, have a key role in the development of diseases such as multiple sclerosis, heart attack, diabetes and obesity. However, how radicals and aldehydes damage cellular structures and cause disease is poorly understood. In a project funded by the FWF, Prof. Elena Pohl (Unit of Physiology and Biophysics) and her team are studying how reactive aldehydes influence the activity of so-called uncoupling proteins. Uncoupling proteins transport protons across the inner mitochondrial membrane and thus prevent the formation of ATP, the main source of energy in cells. The interactions between uncoupling proteins and reactive aldehydes are currently highly controversial. The results of Pohl's work will help clarify the issue and will represent an important basis for the development of effective drugs against diseases caused by free radicals.



How house mice use scent to communicate

House mice communicate by means of chemical signals in their scent marks. These contain a great deal of information, relating for example to social status, health, genetic resistance to diseases and level of inbreeding. Male house mice release large amounts of proteins in their urine, so-called Major Urinary Proteins or MUPs. MUPs represent a kind of individual "barcode" by which a particular mouse is uniquely identifiable, inbreeding is avoided and preference for partners is communicated. The goal of a project supported by a grant from the FWF to Dr Dustin Penn (Konrad Lorenz Institute of Ethology) is to investigate the functions of MUPs in mate choice. In particular, the research should clarify whether MUPs represent an individual signal of compatibility (how well does he go with me?) or an indicator of quality (how fit is he?) to reproductive partners. The experiments require the expertise of behavioural researchers, geneticists and chemists and will help us understand how information is encoded in the chemical signals.

On the track of viruses‘ tricks

Many types of virus, such as HIV and influenza, are surrounded by an envelope. Viral envelopes contain the viral glycoproteins and may also incorporate host proteins. Laboratory experiments have shown that, contrary to previous belief, viruses are also able to integrate various proteins into their envelopes even after they have left the host cell. Whether such processes occur in a natural context will be studied by Dr Christoph Metzner (Institute of Virology) and his team in a project funded by the FWF. The group is aiming to discover whether and how viruses take advantage of this ability and, if so, whether it helps them circumvent the host immune response. The work will be performed in close collaboration with the University of Life Sciences and Natural Resources, Vienna and the Vetmeduni Vienna's technology facility, VetCore. The results should shed light on a further aspect of the interactions between host and pathogen and may lead to new treatments against viruses.

Vaccine against a deadly poultry disease

Histomonosis is a parasitic disease of chickens and turkeys that is distributed throughout the world and leads to losses in poultry flocks. Many industrialized countries have introduced bans on the use of chemical medicaments in animals that are used for food and since then there has been no effective means of prevention or treatment for the condition. Investigations at the Clinic for Avian, Reptile and Fish have shown that attenuated histomonads (the cause of histomonosis) are very effective at protecting chickens and turkeys from disease. A current project funded by the FWF and headed by Dr Dieter Liebhart (Clinical Unit of Poultry Medicine) is investigating the immune reaction to infection with histomonads. Immunological and molecular biological experiments will give detailed information on the immune status of vaccinated and infected chickens and turkeys. The results will provide the basis for an improved understanding of the protection afforded by attenuated histomonads and will be important for practical applications.

Sequence evolution during speciation

Natural selection frequently results in evolutionary changes and the formation of new species. Selection pressure influences the biological function and the evolutionary history of a protein. There are many methods to investigate the mechanisms of positive selection. However, they do not work particularly well when the species under consideration are evolutionarily closely related and for this reason it has to date proven possible to identify only few genes that are specific to individual species. In a project financed by the FWF, Dr Carolin Kosiol (Institute of Population Genetics) and her team are developing new empirical algorithms that take into account the substantial variation in the frequency with which polymorphisms (sequence differences of several species and several individuals) occur. The empirical models will be applied to compare the evolutionary processes in different species of fruit fly. Thanks to the new methods the scientists will be better able to understand the genetic differences between two closely related species and thus to explain the formation of new species.

PoMo: Polymorphism-aware Model

Taking a close look at food-borne diseases

In these times of globalized trade and increasing international tourism, disease-causing organisms are travelling around the world on and in food. However, exactly what organisms are being carried on food, how they are transmitted and how dangerous they may be has to date been little studied. A new EU-funded project coordinated by Prof. Martin Wagner (Institute of Milk Hygiene, Milk Technology and Food Science) is recording the pathogenic microorganisms that enter the 27 EU countries together with imported food. Samples of food confiscated at major border crossings will be tested for the presence of bacteria and the disease-causing properties of any bacteria found will be investigated. The work is also examining bacterial transmission routes and survival strategies within food production plants. The research project PROMISE (PROtection of consumers by MIcrobial risk mitigation through SEgregation of expertise) represents a collaboration between twenty partners from European countries.

Cooperation in wolves and dogs

Wolves live in family groups and cooperate with one another in raising young, in hunting and in defending their territory. In contrast, dogs cooperate with one another but also cooperate extensively with humans. However, we currently know very little about the mechanisms that lead to cooperation in wolves and dogs. Dr Friederike Range (Messerli Research Institute) is attempting to fill this gap by means of a project funded by the European Research Council. With hand-reared wolves and dogs at the Wolf Science Centre she is investigating cognitive processes that are connected with strong emotions in humans and that are largely responsible for the decision to start or to continue to cooperate. She is concentrating in particular on how wolves and dogs react to unequal treatment. The tasks the animals will perform have gradually increasing levels of difficulty, enabling the researchers to define the animals' cognitive and emotional limits.

Customs agents at the airport searching for animal-based foodstuff

Sparkling Science – Science in schools

The Sparkling Science programme of the Federal Ministry of Science and Research (BMWF) promotes collaborative projects in which schoolchildren support researchers in their scientific work. In 2012, funding for two new Sparkling Science projects was granted to the Vetmeduni Vienna.

Functional food for cows

Cows in modern industrialized agriculture are high-performance animals. The increasing demand on the production of milk and meat is associated with greater demands on the feed from which the animals must derive the optimal amount of energy and nutrients. At the same time, feed must be healthy and adapted to the particular metabolic processes in ruminants. The project "Functional food for cows" is being undertaken with children from three different schools in Austria. Its goal is to develop a processing technology for cornmeal that can meet the animals' demands. It is being coordinated by Prof. Qendrim Zebeli (Institute of Animal Nutrition and Functional Plant Compounds).

Chemical weapons in animals

Special glands in toad skin release a poisonous secretion with which the animals defend themselves against predators. In the project "Chemical weapons in animals", schoolchildren in Vienna and Lower Austria are working together with scientists to study toads' chemical weapons. The children should naturally enjoy the work and develop the curiosity that will help them undertake further work on evolutionary biology. At the same time, they are learning to accept responsibility and are losing any fear they may have of amphibians – or of scientists. The project is being coordinated by Dr Herbert Hoi (Konrad Lorenz Institute of Ethology).

College students completing an internship at Vetmeduni Vienna

Promoting the next generation of young academics

Mentoring für Postdocs

The Vetmeduni Vienna Postdoc Programme supports outstanding young academics with strong mentoring and a clearly defined training programme, as preparation for their national or international scientific career. All postdocs were invited to Vetmeduni Vienna's second Postdoc Retreat in 2012 for improved networking and the exchange of ideas. Around 40 young researchers took the opportunity to have a discussion in an informal atmosphere about career possibilities at Vetmeduni Vienna and other scientific institutions, and about cooperation with industry and external funding. As an example, Prof. Christine Mannhalter, from MedUni Vienna, gave a report about her own career path. There were also opportunities for informal exchange with members of the Rectorate, heads of the Senate and representatives of the Office for Research Support and Innovation.

Two and four first places

In November 2012, for the seventh time the best scientific posters by Vetmeduni Vienna researchers received awards. For younger scientists, presenting their own research project on a conference poster is often the first step towards a scientific career. Two juries, one consisting of international scientists and one of Austrian media journalists, chose their favourites from 47 submitted posters. The high quality of the presentations made it especially difficult for the jurors to rank the posters. The journalists therefore awarded the first prize twice, and the science jury awarded four equivalent prizes without a ranking.

Poster prize – Jury of scientific journalists

First place, in a tie:

Nora Mareike Biermann (applicant, Clinical Unit of Equine Surgery), Nora Rindler, Prof. Heinz Buchner: *The effect of pulsed electromagnetic fields on back pain in polo ponies evaluated by pressure algometry and flexion testing*

Nora Rindler (applicant, Clinical Unit of Equine Surgery), Nora Mareike Biermann, Dr Simone Westermann and Prof. Heinz Buchner: *The effect of pulsed electromagnetic fields on surface temperature at the back of sport horses – a thermographic study*

Second place:

Dr Sabina Essler (applicant, Institute of Immunology), Werner Ertl, Dr Julia Deutsch, Dr Barbara Rütgen, Sandra Groiss, Maria Stadler, Bhuma Wysoudil, Dr Wilhelm Gerner, Dr Chak-Sum Ho and Prof. Armin Saalmüller: *Molecular characterization of swine leukocyte antigen gene diversity in purebred pietrain pigs*

Third place:

Dr Gabrielle Stalder, Dr Igor Loncaric (applicants, Research Institute of Wildlife Ecology, Institute of Bacteriology, Mycology and Hygiene) and Prof. Chris Walzer: *They slime, they ooze, they zoonooze – characterization of enterobacteriaceae with zoonotic potential isolated from the faeces of the Spanish slug (Arion lusitanicus)*

Poster prize – Jury of scientists

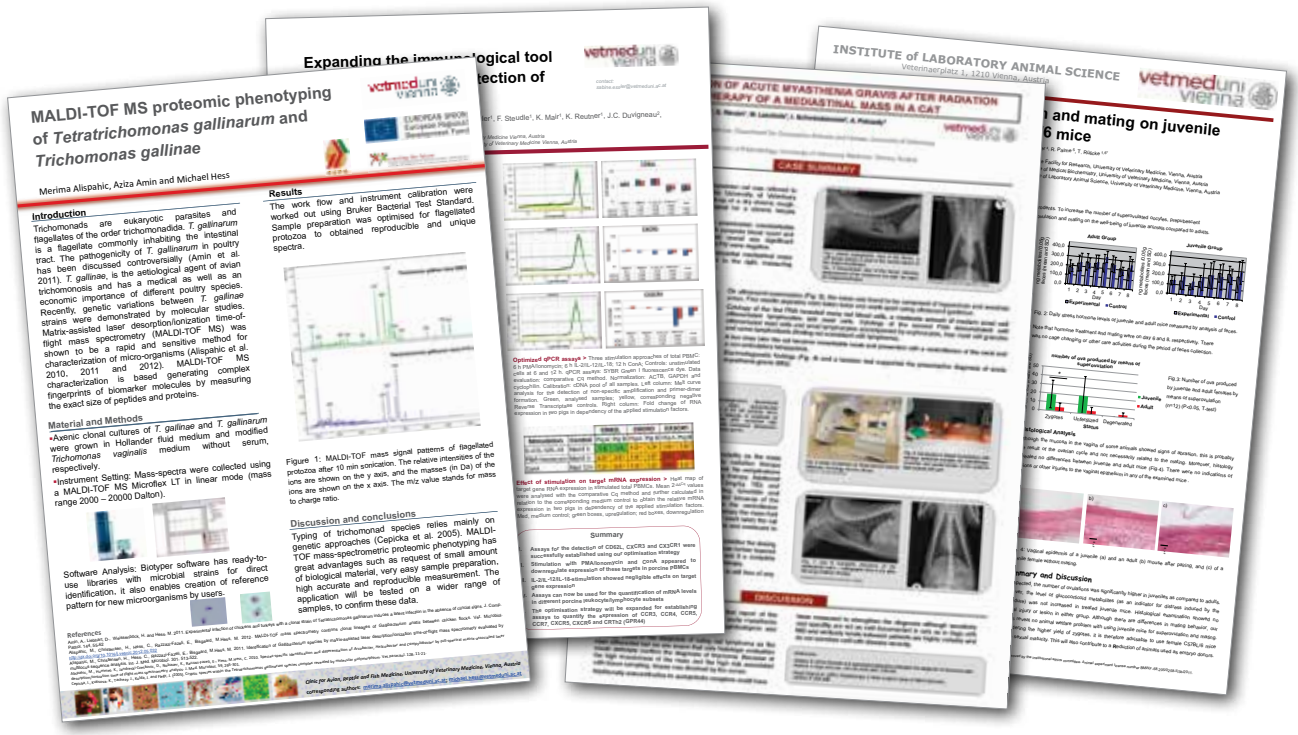
Equally ranked:

Dr Merima Alispahic (applicant, Clinic for Avian, Reptile and Fish), Aziza Amin and Prof. Michael Hess: *MALDI-TOF MS proteomic phenotyping of Tetratrichomonas gallinarum and Trichomonas gallinae*

Dr Sabina Essler (applicant, Institute of Immunology), Andrea Müllebner, Anna Ondracek, Sarah Rosenthaler, Friederike Steudle, Kerstin Mair, Katharina Reutner, Dr Catharina Duvigneau, Dr Wilhelm Gerner and Prof. Armin Saalmüller: *Expanding the immunological tool box in swine – qPCR detection of chemokine receptors*

Dr Irene Flickinger (applicant, Clinical Unit of Internal Medicine Small Animals), Prof. Miriam Kleiter, Dr Sabine Riesen, Dr Michael Leschnik and Prof. Ilse Schwendenwein, Dr Akos Pakozdy: *Remission of acute myasthenia gravis after radiation therapy of a mediastinal mass in a cat*

Dr Thomas Kolbe (applicant, Biomodels Austria/IFA Tulln), Sarjoun Sheety, Prof. Ingrid Walter, Prof. Rupert Palme and Prof. Thomas Rülicke: *Impact of superovulation and mating on juvenile C57BL/6 mice*



Research receives honours

Very successful scientists

On the occasion of its annual summer celebration, Vetmeduni Vienna honours especially successful scientists in two age categories in the areas of clinical and non-clinical research.

Awards for the highest number of citations in 2011/2012 were presented to:

- in the category clinical research, born before 12/31/1976: in a tie: Prof. Michael Hess, Clinic for Avian, Reptile and Fish, Dr Sabine Brandt, Clinical Unit of Equine Surgery
- in the category non-clinical research, born before 12/31/1976: Prof. Mathias Müller, Institute of Animal Breeding and Genetics
- in the category clinical research, born after 1/1/1977: Dr Nadja Affenzeller, Clinical Unit of Internal Medicine Small Animals
- in the category non-clinical research, born after 1/1/1977: Dr Robert Kofler, Institute of Population Genetics

For raising most external funding in 2011/2012, awards were conferred to:

- in the category clinical research, born before 12/31/1976: Prof. Michael Hess, Clinic for Avian, Reptile and Fish
- in the category non-clinical research, born before 12/31/1976: Prof. Christian Schlötterer, Institute of Population Genetics
- in the category clinical research, born after 1/1/1977: Dr Christina Nagel, Insemination and Embryotransfer Platform
- in the category non-clinical research, born after 1/1/1977: Dr Zsófia Virányi, Messerli Research Institute

Inventors of the Year

The University of Veterinary Medicine, Vienna presents successfully exploited research findings in the scope of the Inventor of the Year award. Dr Barbara Rütgen from the Laboratory Diagnostics Platform succeeded in obtaining a stable cell line from a B cell lymphoma sample, a form of lymph node cancer, which is now used worldwide to study and develop new forms of cancer treatment. For her invention, the researcher received the Inventor of the Year award in the category Soft Intellectual Property.

For successfully exploiting an invention and applying for a patent, the second inventor prize was awarded in the category Hard Intellectual Property. For developing a medical paste for New World camelids, prizes were awarded to: Prof. Agnes Dadak, Institute of Pharmacology and Toxicology, Prof. Sonja Franz, Clinical Unit of Ruminant Medicine and to Andreas Liebhart, Pharmacy.

External honours

Researchers at the University of Veterinary Medicine, Vienna received a number of prestigious national and international science prizes and grants in 2012.

- Award of Excellence presented by the Federal Ministry of Science and Research: Dr Salome Troxler, Clinical Unit of Poultry Medicine
- Best Article of 2012 Award presented by the Psychonomic Society: Prof. Ludwig Huber, Messerli Research Institute (together with Dr Michael Morton Steurer and Dr Ulrike Aust, University of Vienna)
- Chamber of Commerce Award 2012: Dr Christoph Metzner, Institute of Virology
- City of Vienna Awards (Förderungspreise des Fonds der Stadt Wien) for innovative interdisciplinary cancer research (three awards): Angelika Berger, Dr Karoline Kollmann, Dr Wolfgang Warsch, all three Institute of Pharmacology and Toxicology
- Companion animal prize 2012 presented by the Friends of the University of Veterinary Medicine, Vienna: Dr Lisa Maria Glenk
- Distinguished Scientific Award for Early Career Contribution to Psychology presented by the American Psychological Association: Dr Friederike Range, Messerli Research Institute
- Dr Maria Schaumayer Foundation Award: Dr Marlene Weichselbaumer, Messerli Research Institute
- L'Oréal scholarship: Dr Rebeka Zsoldos, Clinical Unit of Equine Surgery
- Medal for excellent environmental protection contributing to the protection of rare and endangered animal species in Mongolia by the Mongolian Ministry of Nature, Environment and Tourism: Prof. Christian Walzer, Research Institute of Wildlife Ecology
- Poster Award 2012 by the Austrian Society for Hygiene, Microbiology and Preventive Medicine: Irene Rückerl, Institute of Milk Hygiene, Milk Technology and Food Science
- Poster Presentation Award 2012 by the European Association of Zoo and Wildlife Veterinarians: Dr Gabrielle Stalder, Research Institute of Wildlife and Ecology
- Post-doctoral Research Grant by the Friends of the University of Veterinary Medicine, Vienna: Dr Georg Duscher, Institute of Parasitology
- Senior Investigator Research Award by the International Symposium on Canine and Feline Reproduction: Prof. Sabine Schäfer-Somi, Insemination and Embryo Transfer Platform
- Special award Water 2012 by the Vienna Environment Protection Department and the Vienna Water Agency: Dr Gabrielle Stalder, Research Institute of Wildlife and Ecology
- Theodor Körner Prize 2012: Dr Rebeka Zsoldos, Clinical Unit of Equine Surgery, and Dr Christoph Metzner, Institute of Virology

Projects approved in 2012

Full title	Person resonsible	Funding provided by
Protection of consumers by microbial risk mitigation through combating segregation of expertise	Martin Wagner	7 th Framework Programme KBBE 2010 (EU)
Reconsiling Renewable Energy Production and Nature in the Alps	Chris Walzer	Alpine Space, european regional development fund (EU)
Ernährungsphysiologische Bewertung einer chemisch-thermischen Verarbeitungstechnik von Futtergerste in der Ration von Milchkühen in der Frühlaktation	Qendrim Zebeli	Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management
Professional ethics for public veterinary officers: Dealing with ethical challenges in the area of politics, the public sphere, economy and animal protection	Herwig Grimm	BMG
Sparkling Science: Functional food for cows – added value in nutrition	Qendrim Zebeli	BMWF Sparkling Science
Sparkling Science: Chemical weapons in the animal kingdom	Herbert Hoi	BMWF Sparkling Science
Neuroprotection and TCM – Therapy of Aging Diseases by chinese traditionell medicine – an approach to neuroprotection	Wolf-Dieter Rausch	BMWF, BMG
Nanotechnology and viral diagnostics	Christoph Metzner	Economic Chamber Vienna
Training Centre for Avian Medicine	Michael Hess	ERDF (EU)
Portable Aptamer Biosensors for the Detection of Pathogens On-the-Spot (Legionella/Amoeba Complex)	Mathias Müller	Eurostars (EU)
Establishment of a reliable in vivo model for the classification of the health-promoting effects of carbohydrates	Qendrim Zebeli	FFG
Uncoupling CDK6 from p16INK4A- effects for hematopoiesis and lymphomagenesis	Veronika Sexl	FWF
Mechanisms of uncoupling protein activation by reactives aldehydes	Elena Pohl	FWF
Mechanism of nucleotide-mediated inhibition of mitochondrial uncoupling proteins	Elena Pohl	FWF
Identification of a new post-transcriptional regulatory element	Stanislav Indik	FWF
Predation risk, stress and life history tactics in the edible dormouse	Thomas Ruf	FWF
Major Urinary Proteins: Re-examining the functions in chemosensory communication	Dustin Penn	FWF
Investigating the plasticity of viral envelope proteoms	Christoph Metzner	FWF
Resolving immune traits against Histomonas meleagridis in poultry, a new Th2 model?	Dieter Liebhart	FWF
Empirical codon models for comparative re-sequencing data	Carolin Kosiol	FWF
Genomic footprints of domestication in Old World camelids	Pamela Burger	FWF
Understanding the proximate mechanisms of canine cooperation	Friederike Range	FWF

Full title	Person resonsible	Funding provided by
Enteropathogenic Bacillus cereus in food: identification and risk assessment	Monika Ehling-Schulz	German Federal Ministry of Economics and Technology
Examining the regional distribution of ventilation in the lungs of healthy conscious dogs with electrical impedance tomography	Tamas Ambrisko	GFK
Stat3 a und b dissecting the tumor-suppressing effects of stat3 in NK-cell surveilled tumors	Veronika Sexl	Herzfeld Foundation
KAMEL-Triploide Kamille: Erarbeitung der Voraussetzung der Entwicklung einer triploiden Kamillensorte	Chlodwig Franz	Leibniz Institute of Plant Genetics and Crop Plant Research
Biomechanik – dynamisches Verhalten der Halswirbelsäule von Pferden	Rebeka Zsoldos	L'ORÉAL Austria, Grant for WOMEN IN SCIENCE
Elements for a Burkina Faso national pharmacopoeis: monographs redaction and quality control of endangered antimalarial Medical Plants	Aline Lamien-Meda	OeAD
The evolutionary and neuro-cognitive basis of the link between imitation, emphaty and prosocial behaviour in dogs and humans	Ludwig Huber	WWTF
The semantics of talking with the eyes and gestures: The hormonal and cognitive underpinings of comprehending co-operative intentional communication in domestic dogs and wolves	Zsófia Virányi	WWTF

The table shown does not present a complete list of projects approved in 2012.
Due to nondisclosure agreements not all projects are listed.

BMG	Austrian Federal Ministry of Health
BMWF	Austrian Federal Ministry for Science and Research
ERDF	European Regional Development Fund
FFG	Austrian Research Promotion Agency
FWF	Austrian Science Fund
GFK	German association for the promotion of canine research
KBBE	Knowledge Based Bio-Economy
OeAD	Austrian agency for international mobility and cooperation
WWTF	Vienna Science and Technology Fund

Key figures

Staff (Headcount, as of 12/31)

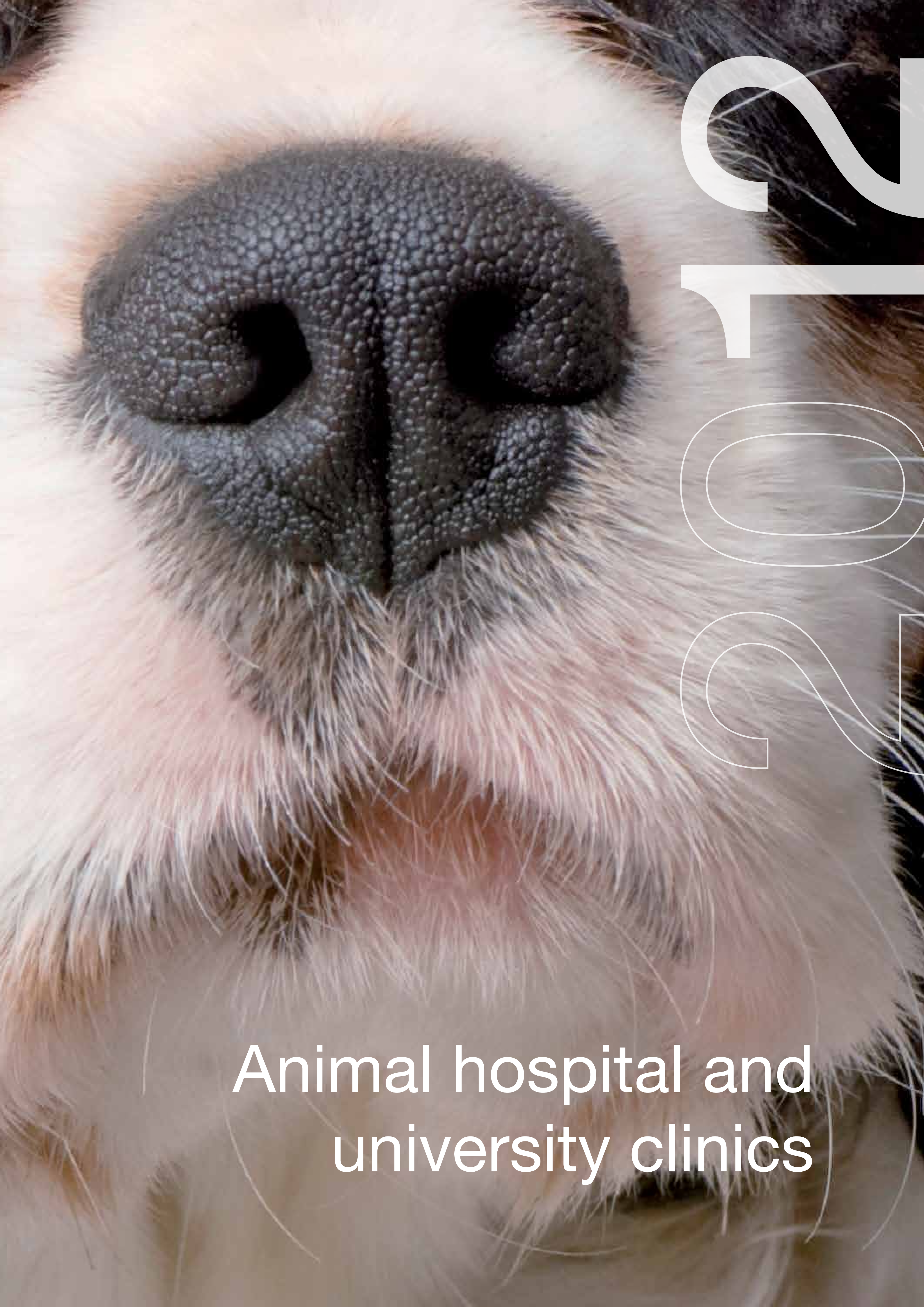
	2012			2011			2010		
	Females	Males	Total	Females	Males	Total	Females	Males	Total
Professors	8	31	39	7	32	39	7	30	37
Academic staff	376	233	609	339	226	565	318	222	540
Academic staff total	**384**	**264**	**648**	**346**	**258**	**604**	**325**	**252**	**577**

Income from R&D projects in Euro

	2012	2011	2010
Domestic	12,204,892	7,039,181	6,408,692
EU	2,259,636	1,958,317	994,721
Third countries			15,323
Total	**14,464,528**	**8,997,499**	**7,418,736**

Number of scientific publications by staff

Types of publications	2012	2011	2010
First edition of scientific specialised literature and textbooks	23	14	4
Fist publications in SSCI, SCI or A&HCI journals	425	397	395
Firs publications in other scientific journals	39	25	32
First publications in collected editions	426	392	340
Other scientific publications	191	141	140
Total	**1,104**	**969**	**911**


2012
Animal hospital and university clinics

For animal patients and veterinarians

The animal hospital of the University of Veterinary Medicine, Vienna provides 24-hour medical care for animal patients year round. Outpatient, inpatient and intensive care is provided in accordance with the latest scientific findings. Scientifically and medically challenging cases treated at the university clinics lead to important scientific findings, which will ultimately be of benefit to future animal patients and the medical education of veterinarians in training. The animal hospital is a teaching hospital for students of the University, as well as a referral clinic for practicing veterinarians and private clinics. It also provides veterinary services for animal owners. Medical services are offered by five clinics bundled according to animal species:

- **Clinic for Avian, Reptile and Fish**
- **Clinic for Ruminants**
- **Clinic for Small Animals**
- **Clinic for Swine**
- **Equine Clinic**

In 2012, the Insemination and Embryo Transfer Platform was established at the Department for Companian Animals and Horses as a central point of contact for issues relating to the breeding of horses. In special events, Vetmeduni Vienna made its expertise available to animal owners and veterinarians and services for veterinarians were further expanded.

university clinics

Services for animals owners and veterinarians

2nd Symposium on horses: Training and rehabilitation

Muscle and strain related disorders in horses are often a result of overstraining and interfere with the horse's level of fitness. It is therefore important for riders to develop a basic understanding of the musculoskeletal system and the training of horses. The second symposium on horses organised by the Equine Clinic provided the perfect opportunity for this. More than 350 horse owners and interested parties came to obtain information about the latest research on the topic of training and rehabilitation in horses.

Many questions concerning horses

In 2012, for the second time experts from the Equine Clinic were available to respond to visitors' questions at the "Apropos Pferd". At the Horses and Equestrian Sports Exhibition in Wiener Neustadt, Vetmeduni Vienna experts covered a large number of topics, running the gamut from equine diseases such as tumours, dental diseases or lameness to issues relating to horse breeding and ageing in horses.

Short night of surgery

The Clinic for Small Animals invited veterinarians to the Clinical Unit of Small Animal Surgery in summer 2012 for a professional exchange. Soft tissue, neuro- and oncological surgery, as well as orthopaedics and dental and maxillary surgery cases were presented to approximately 100 attendants. Vetmeduni Vienna used this event to establish a platform for exchange between small animal surgeons and practicing veterinarians.

New World camelids: From an exotic species to breeding animal

Following the successful first congress, in September 2012 the second “Lamas and Alpacas in Austria” veterinary congress took place. The congress was organised by the Austrian Society for Camelid Health, the Clinic for Ruminants and the Institute of Pharmacology and Toxicology. The event offers veterinarians insights into the clinical aspects of New World camelid medicine. The practice-oriented programme drew almost twice as many participants in 2012 than in the previous year and comprised topics like gynaecology, andrology, fertility and internal medicine.

Internationally renowned veterinary residents

The residency programme offered by the European Board of Veterinary Specialisation (EBVS) is a postgraduate specialisation for veterinarians in an area of veterinary medicine. Graduates of the programme will have an internationally recognised specialist veterinarian qualification. In 2012, the following Vetmeduni Vienna staff members completed their residency programme graduating as diplomates in their field of specialisation:

- Dr Christina Nagel (Insemination and Embryotransfer Platform)- European College of Animal Reproduction (ECAR)
- Jana Beckelmann (Insemination and Embryotransfer Platform) – European College of Animal Reproduction (ECAR)
- Dr Sarina Shibly (Clinical Unit of Internal Medicine Small Animals) – European College of Veterinary Internal Medicine – Companion Animals (ECVIM-CA)
- Dr Tamas Ambrisko (Clinical Unit of Anaesthesiology and perioperative Intensive-Care Medicine) – European College of Veterinary Anaesthesia and Analgesia (ECVAA)

Key figures

Animals treated at the animal hospital in 2012	
Small animals (dogs, cats, rodents and lagomorphs)	34,532
Horses and donkeys	3,297
Farm animals (ruminants, pigs, productive poultry)	1,185
Other animal species	2,532
Total	**41,546**

Animal patients treated in 2012	
Outpatient cases	26,189
Inpatient cases	15,357

2012

Cooperations

Strong networks

The University of Veterinary Medicine, Vienna is active in its main areas of competence – teaching, research and scientific services – within numerous networks, both in Austria and internationally.

In 2012, cooperation efforts between academic research and the economy were intensified and expanded. Vetmeduni Vienna widened its networks not only within Europe but also in Asia. In 2012, Vetmeduni Vienna continued its cooperation in joint research institutions with other universities and research centres. International student mobility was further strengthened through new initiatives.

Signing of a memorandum of understanding
between Kasetsart University Bangkok and Vetmeduni Vienna

Well-connected in Central Europe

Czech Republic: Avian medicine research project

With the start of the joint Training Center for Avian Medicine (TAV) research project by the universities of veterinary medicine in Austria and Czech Republic the cooperation between Vienna and Brno was further strengthened in October 2012. The project by the Clinic for Avian, Reptile and Fish of the University of Veterinary Medicine, Vienna and the University of Veterinary and Pharmaceutical Sciences Brno is funded with EU Structural Funds. Research focuses on the risk of transmitting infectious diseases from wild birds to humans. The purpose of the collaboration is to train veterinarians and provide information and behavioural guidelines to the population.

Austro-Hungarian poultry research cooperation

Chicken and turkey meat is as popular as never before. Revenue generated by the poultry industry has doubled worldwide over the last ten years. This makes it even more important to ensure poultry health and the quality and safety of foodstuffs made from it. This is where the cooperation between the University of Pannonia in Hungary and Vetmeduni Vienna which began in 2011 comes into play. In October 2012, the first major annual conference of the Centre of Excellence for Poultry (CEPO) took place in Vienna. Numerous participants from the world of academia, business, the veterinarian community and students from Hungary and Austria came together for an exchange of knowledge. The programme included talks on poultry nutrition and intestinal health as well as a fieldtrip.

First Annual Conference of CEPO at Vetmeduni Vienna

The VetNEST Network

Veterinary Network of European Student and Staff Transfer – abbreviated as VetNEST – stands for a network of eleven universities and faculties of veterinary medicine in Central and Southern Europe. Vetmeduni Vienna has been part of this network since 1993, whose objective is to promote student and staff exchange between the participating universities through mutual recognition of degrees and qualifications.

The rectors and deans of the member universities met at the VetNEST conference in September 2012 in Vienna to discuss changes to the curricula, international mobility programmes, summer schools and other cooperation opportunities. During a campus visit, the visitors inspected the excellent infrastructure of Vetmeduni Vienna.

Trans-border study opportunities in summer

The German French Summer School for the Promotion of Veterinary Science was launched during the 25th general assembly of the European Association of Establishments for Veterinary Education (EAEVE) in May 2012 in Budapest. All German-speaking universities of veterinary medicine and their French counterparts (Alfort, Liege, Lyon, Nantes, Toulouse) signed the statutes. The summer school is organised once a year by one of the participating institutions. Every university can send out up to two participants who are pursuing their postgraduate studies.

VetNEST Meeting at Vetmeduni Vienna

Reaching out to Asia

Eurasian university network

Vetmeduni Vienna has actively participated in the Eurasia Pacific Uninet network for years, which is an education network comprising 39 Austrian universities and universities of applied sciences and 106 Asian universities. With Prof. Wolf-Dieter Rausch from the Institute of Medical Biochemistry, Vetmeduni Vienna has presided over the network since October 2012. The goal of this university network is to promote academic exchange by means of research projects, conferences, short-term visiting professorships, summer schools and scholarships. As part of the Eurasia Pacific Uninet initiative, Rausch was able to organise workshops with the assistance of Vetmeduni Vienna with international participants in China, Mongolia, Tajikistan and the Democratic Republic of Korea as well as to invite 19 Post-Doc and 19 PhD scholarship recipients to Vetmeduni Vienna.

Cooperation with Kasetsart University

In April 2012, the Faculty of Veterinary Medicine of Kasetsart University in Bangkok and Vetmeduni Vienna signed a memorandum of understanding. The goal of the cooperation is to intensify the exchange of researchers and students between both universities. This memorandum of understanding has already facilitated a visiting stay by Prof. Alexandra Scope, Clinical Unit of Avian and Reptile Medicine, and students for internships with Kasetsart University. Other cooperation projects are planned.

Meeting of the Eurasia Pacific Uninet network in Shanghai

Joint research

BIOS Science Austria – cooperation instead of competition

Together with other leading Austrian life science institutions, Vetmeduni Vienna is one of the partners of BIOS Science Austria. The alliance uses its concentrated expertise in life sciences to collaborate jointly on research topics. Prof. Till Rümenapf of Vetmeduni Vienna won the bid of BIOS Science Austria for a proposal for a cooperation project that seeks to study viral infections in bee populations. The funding will help to conduct a major research project and raise external funding.

Graf Lehndorff Institute – prize-winning stud from successful embryo transfer

The Graf Lehndorff Institute for Equine Science, a joint institution of the University of Veterinary Medicine, Vienna and the Foundation Brandenburg Main and State Stud Farm Neustadt/Dosse (Germany) has achieved a special breeding success. In the context of a joint embryo transfer programme, Dr Juliane Kuhl from the Insemination and Embryo Transfer Platform of the University of Veterinary Medicine, Vienna in 2010 transferred the embryo of a young stud to a mare that successfully carried the foal to term, gave birth to it and reared it. The artificially bred stud won the selection of the Southern German Horse Breeding Associations in the category dressage in November 2012, and was subsequently auctioned off for 130,000 Euro.

Top marks for IFA Tulln

Researchers from the University of Natural Resources and Life Sciences, Vienna, the University of Veterinary Medicine, Vienna and the Vienna University of Technology work and research together at the Interuniversity Department for Agrobiotechnology (IFA) in Tulln. In February 2012, an evaluation of the Department by an international review committee resulted in the highest marks for the Institute of Biotechnology in the area of animal production. The international visibility of the members of the Institute was expressly mentioned in the evaluation report. The committee concluded that the areas of research, molecular genetics and molecular biology, established already in 2009, complement the research focus of the interuniversity department as well as the research area of reproductive biology at the University of Veterinary Medicine, Vienna.

Prize-winning stud from embryo transfer

Haidlhof – keas demonstrate technical intelligence

The research station in Haidlhof, an estate operated by the Teaching and Research Farm of Vetmeduni Vienna, studies avian cognition and communication in cooperation with the University of Vienna. At the Kea Lab and the newly established kea aviary, in 2012 several studies were initiated or continued studying technical intelligence and exploratory behaviour, perception as well as analogue thinking and abstract reasoning. Both internationally renowned behavioural researchers and experts from other disciplines, such as from the University of Applied Arts Vienna, used the research station for their studies in 2012.

Wieselburg – bovine reproduction research

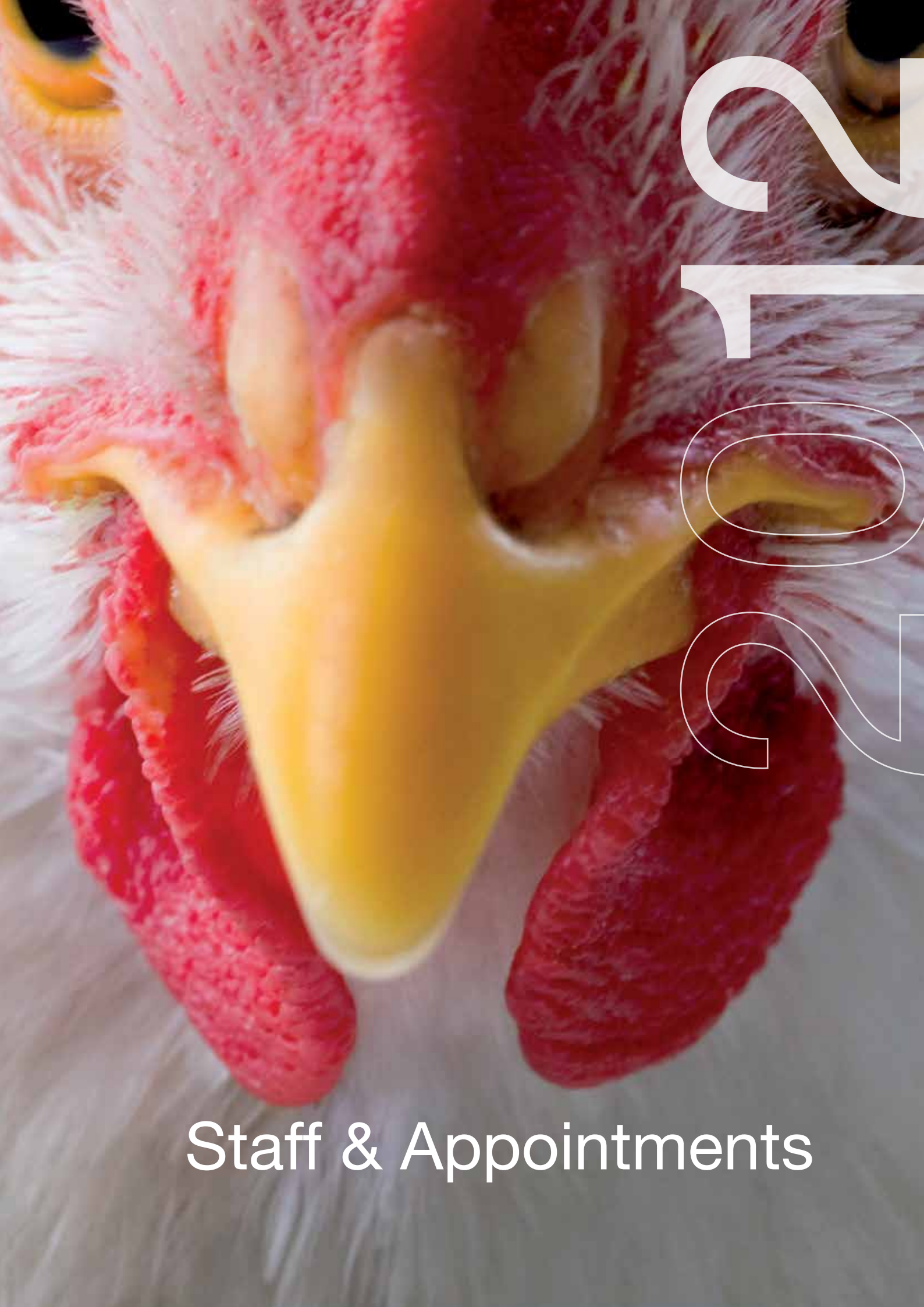
The Reproduction Centre Wieselburg was founded in cooperation with the Austrian Federal Research Farms Company Wieselburg to provide a platform on bovine reproduction for students, veterinarians and breeders. The heart of the centre is a play pen with adjoining examination rooms and labs designed to conduct embryo transfer in the earliest stages of gestation. The centre serves as a teaching establishment for students and as a research institution for veterinarians and breeders.

Kea aviary at the research station in Haidlhof

Study without borders

Obtaining experience abroad is for Vetmeduni Vienna students an integral part of their academic training. Thanks to new funding sources provided by the University, the number of students who spent time abroad increased considerably in 2012.

The International Relations office not only coordinates traditional Erasmus and Joint Study scholarships, but it also provides funding for scientific research and participation in scientific conferences abroad.



Staff & Appointments

Motivate and develop

The University of Veterinary Medicine, Vienna treats its members of staff with respect, supports their individual talents and demands high performance. When appointing new professors, the University requires top standards in research and teaching. In 2012, two Chairs were newly appointed, one for Virology and one for Swine Medicine.

With a wide range of opportunities for continuing education, Vetmeduni Vienna advances the expertise of its staff in a targeted manner. A specially developed leadership programme (LeadingVet) was designed for all leaders and professors. Based on modules, in 2012 its focus was placed on leadership, motivation and delegation as well as regulations relating to public services law. The University places special emphasis on balancing a career and/or studies better with having a family and therefore received the certificate University&Family.

Heeding the call to Vetmeduni Vienna

In 2012, Vetmeduni Vienna filled two Chairs with internationally renowned researchers.

New Professor of Virology

Prof. Till Rümenapf, an internationally renowned expert in viral diseases in animals, has been a Professor of Virology and head of the eponymous institute at the University of Veterinary Medicine, Vienna since April 2012. Rümenapf's passion is the relationship between viruses and their hosts. He studies mechanisms that allow viruses to remain in their hosts for a long time. Such persistent viruses weaken the immune system of farm animals and make them more susceptible to infections. In cooperation with the clinics and other institutes of the University, the virologist studies especially bovine and swine viral diseases. The goal of his research is to develop efficient vaccines that could reduce the use of antibiotics in farmed animals.

New Professor of Swine Medicine

Prof. Isabel Hennig-Pauka began her professorship and her service for the Swine Clinic of Vetmeduni Vienna in April 2012. The veterinarian was educated in Hanover and has been an expert in both basic research and veterinary practice since herself being a student. As Professor of Swine Medicine, she will study immune reactions in swine in response to various pathogens to help develop more effective vaccines. She has earned an international reputation as an expert in swine respiratory illnesses.

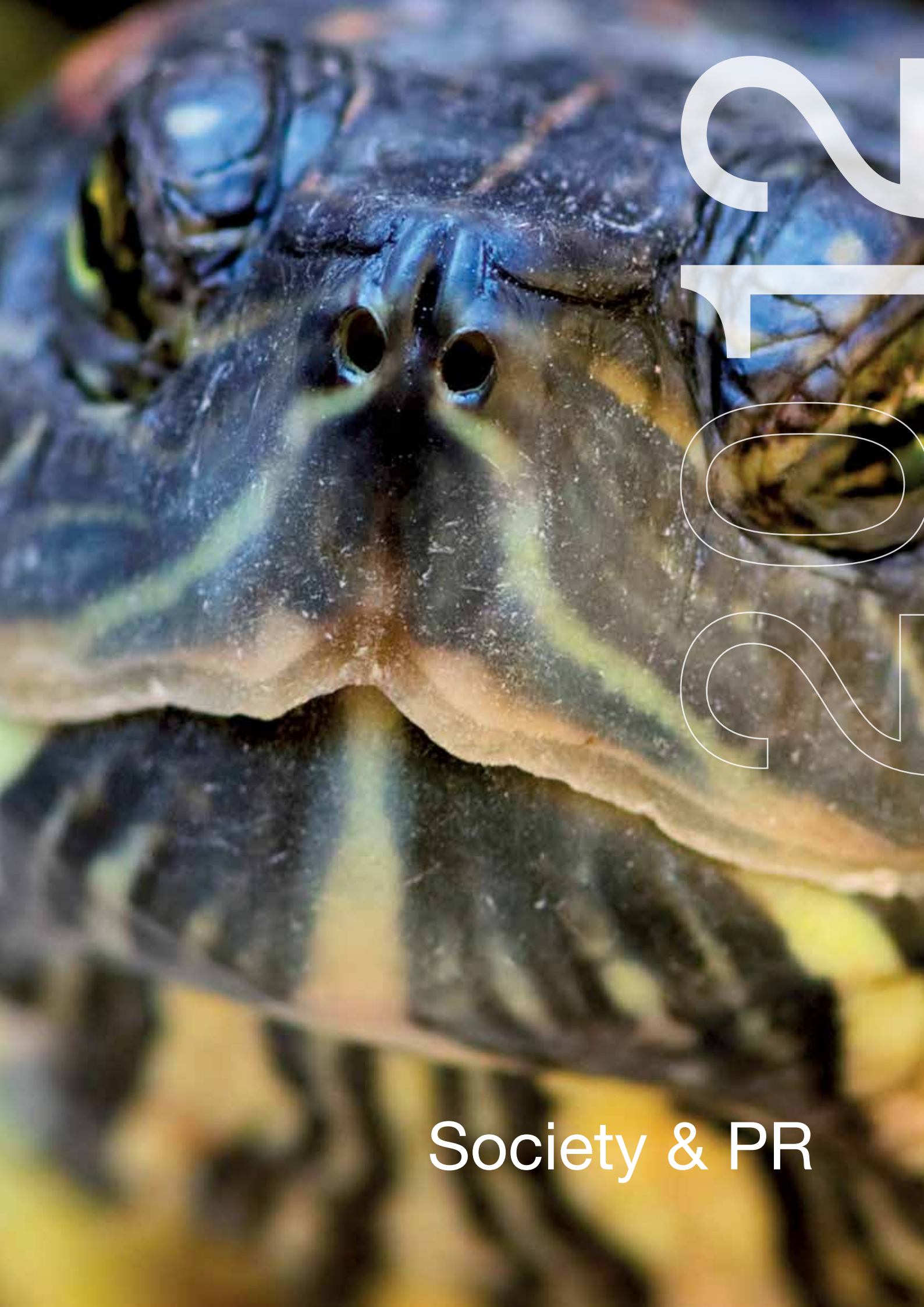
Vetmeduni Vienna as an employer

Excellent child care on campus

Balancing family and career is one of the priorities of Vetmeduni Vienna. Therefore, professional child care on campus is offered by the University to all staff members on school holidays and since 2012 also in summer. Approximately 50 children between one and twelve years were supervised and participated in a diverse activity programme in their nine week summer holidays which was organised by educators from the University College of Teacher Education Vienna. The children played and did arts and crafts inside the main hall of the University. They watched dog physiotherapies, horseshoeing and had snacks and refreshments at the staff kitchen in between times. Numerous trips rounded off the list of activities, including to the Vienna Museum of Technology, to Schönbrunn and to the Austrian Broadcasting Corporation, along with sport and exercise at the Climbing Park and various playgrounds.

Staff members who received awards

The annual summer celebration, organised by the University of Veterinary Medicine, Vienna provides the ideal opportunity to honour outstanding staff members in the areas of research, teaching and administration. Manuel Schrott, IT technician from the Department of Pathobiology was selected as Employee of the Year 2012.



Society & PR

Society & PR

A connecting hub

Vetmeduni Vienna uses all its communication channels to make a wide spectrum of activities known to the public. In 2012, the University focused attention on the processing of research results for the media and the interested public in time for publication in scientific journals. Also, the gates of the University campus remained open in 2012 during numerous events for various guests. Vetmeduni Vienna was host to several international conferences and symposia, offering opportunities for professional and informal exchange.

Science & research communication

With active PR work, Vetmeduni Vienna informs the public about current research results and science projects. In 2012, Vetmeduni Vienna published nearly 40 press releases on various research topics. A selection of releases with high media coverage shows an overview of the variety of subjects.

Traces of evolution in the genes

Adaptation and evolution change the hereditary material. The team of Prof. Christian Schlötterer of the Institute of Population Genetics at Vetmeduni Vienna has developed a technology for the genetic analysis of whole populations of organisms. This allows the researchers to quickly and cost-effectively analyse how populations of different species genetically adapted to their environment. Thus, it is possible to understand much better how evolution works in practice. The software has been featured in the journal "Bioinformatics". The press release led to 14 reports in the media.

Spectacular success in treatment of aggressive lymphatic cancer

A therapy developed in an animal model for a particularly aggressive form of lymphatic cancer, using the drug Imatinib has allowed a patient who had no more treatment options available to survive for more than two years up to now. The study originated from the Prof. Lukas Kenner group of the Ludwig Boltzmann Institute for Cancer Research and the Medical University (MedUni) Vienna. Prof. Veronika Sexl and Karoline Kollmann, PhD, of the Institute of Pharmacology and Toxicology at Vetmeduni Vienna developed and conducted the corresponding animal tests. The work was published in the journal "Nature Medicine", the press release in addition was co-ordinated with MedUni Vienna and resulted in 18 media reports.

Score goals without remorse

In handball, sprains of the ankle are an almost everyday occurrence. A team headed by Prof. Christian Peham, of the working group Movement Analysis in the Clinical Unit of Equine Surgery of Vetmeduni Vienna, has analysed in detail the movements and strains of the three most important ligaments of the ankle joint for the most common goal throw, the so-called jump throw. The results could reduce the risk of injury. They were published in the latest issue of the "Journal of Biomechanics". 18 media outlets worldwide were interested in the topic.

Illegible horse branding

There is increasing evidence that branding foals leads to increased stress levels. Many horse breeders are still convinced that brand marks are the best way to identify their animals. Surprisingly, no one has investigated yet whether the brand is later also reliably readable. Prof. Jörg Aurich and Prof. Christine Aurich and their team from Department/ Clinic for Companian Animals and Horses of Vetmeduni Vienna found that experienced testers correctly recognised only 40 per cent of their brands out of a group of about 250 horses. These results could mean the end of the long tradition of branding foals. They were published in the “The Veterinary Journal”. The press release led to 18 reports in the media.

Frequent coupling keeps sperm viable

More and more men suffer from a lack of fertility, particularly in western countries. Stress is suspected to be responsible for this. It is also possible that men have problems with fertility because they do not have sex frequently enough. This could be the provocative conclusion from a new study of toads which a research team from the Konrad Lorenz Institute of Ethology at Vetmeduni Vienna has published in the online journal PLoS ONE. The press release for this publication was one of the most successful of 2012. The topic yielded 27 media reports internationally.

How to anaesthetise a hippopotamus

If in zoos and game parks hippopotami need to be anesthetised, this poses a special challenge for veterinarians. Opioid-based anaesthetics often cause breathing problems in hippos, and other options do not last long enough. Together with international colleagues, Dr Gabrielle Stalder and Prof. Chris Walzer from the Research Institute of Wildlife Ecology tested an anaesthesia technique on hippos, based on medetomidine and ketamatine, neither containing opiates. The tests went well. Although a few animals stopped breathing, they resumed after several minutes by themselves. The researchers suspect that this effect is similar to the breathing reflex elicited when submerging in water. 13 media reports followed the press release.

Open campus

Dog dance and horse rescue

Biannually, Vetmeduni Vienna opens its gates to visitors who are interested in animals. In June 2012, the time for another Open House came round again and more than 2,000 visitors of all age groups seized the opportunity. Various stops on the 15 hectare campus showcased the diversity of the University. Running the gamut from guided tours of University clinics, the Pathologic-Anatomical Museum to presentations about current research projects, something was offered to cater to every visitor's interest. Activities for children included a microscope island, blowing out ostrich eggs, petting crayfish, a bouncy castle and a horse and carriage ride. Some of the highlights of the day were the rescue of a horse dummy from a biotope, a police dog show and a dog dance event.

Guided tours to the campus

Vetmeduni Vienna offers tours specially designed to appeal to various groups – ranging from kindergarten groups to company staff. In 2012, more than 2,200 interested individuals used this service to inform themselves about various University facilities. During Campus Feeling, a half day special guided tour, prospective students have the chance to get to know various fields of study taught at the University of Veterinary Medicine, Vienna and what career options exist in veterinary medicine.

Campus turned upside down

Vetmeduni Vienna participated this year for the first time in the KinderuniWien initiative, the summer school programme for children aged seven to twelve. More than 400 children turned the campus upside down for two days. They took a close look at small and large animals, went on a discovery tour of the world of bacteria and experimented with their sense of smell. The children experienced the diversity of Vetmeduni Vienna through special lectures. In response to the significant attention received, interested children will be able to sample university feeling at Vetmeduni Vienna in the coming years too.

Animal owners well informed at “Mini Med Tiere”

Inspired by the successful Mini Med study course, the “Mini Med Tiere” lecture series is especially popular among animal owners. Informational events on various animal health topics have been regularly organised since autumn 2011. At Raiffeisen Forum, Vetmeduni Vienna experts and veterinary practitioners inform about the most important topics relating to pets.

Try-out study at Science Camp

The Science Camp organised by Vetmeduni Vienna was held for the fourth time already, in July 2012. Young people interested in studying veterinary medicine had the chance to try studying for one week during their holiday period. “From stable to table” was the motto of the event and attention was focused on plants as foodstuff, farm animal medicine, animal welfare and food safety.

Help for pets owned by homeless people

Vetmeduni Vienna supports the association Neunerhaus by treating pets owned by homeless people. The Clinical Unit of Small Animal Surgery again in 2012 performed surgical procedures and post-surgical treatment free of charge for animal patients that were referred by the veterinary service of the association Neunerhaus.

Animal husbandry spokesperson at Vetmeduni Vienna

Fulfilling its responsibility to protect animal welfare, Vetmeduni Vienna has created the position of an animal husbandry spokesperson. Prof. Christian Walzer from the Research Institute of Wildlife Ecology was selected for this role which he fulfils with the Office for Internal Revision. His work is based on the Code of Conduct for animal welfare. These Vetmeduni Vienna guidelines ensure the welfare of all animals kept and treated at the University.

The responsibilities of the Animal Welfare and Ethics Committee are clearly demarcated from the above function.

Science Camp participant at Vetmeduni Vienna

International congresses at Vetmeduni Vienna

Optimising animal husbandry

Many animals are kept under restricted conditions. Farm animals that spend their entire lives in a stable or companion animals that never leave their owners' flats are not a rare occurrence. The 46th Congress of the International Society for Applied Ethology took place in August 2012 at Vetmeduni Vienna under the motto "Quality of Life in Designed Environments". Renowned experts in the field discussed how stables, houses and zoos could be designed to meet the needs of the animals housed in them and how to facilitate positive experiences and emotions for animals kept in stables, at home or at a zoo.

International symposium on plant breeding

The latest research results on plant breeding were presented at the "Breeding Research on Medicinal and Aromatic Plants" symposium at the University of Veterinary Medicine, Vienna in June 2012. Topics covered ranged from genetic resources through traditional and molecular plant breeding and genetically modified organisms to the issue of intellectual property rights.

Przewalski horses: jubilee in the Gobi Desert

Exactly 20 years ago, the first wild horses were reintroduced into their native habitat in the Gobi Desert. To mark the occasion, Prof. Christian Walzer and his team from the Research Institute of Wildlife Ecology at Vetmeduni Vienna organised an international conference. More than 100 participants from 29 countries accepted the invitation. Przewalski horses were last seen in the wild in 1969 and then became extinct, remaining only in zoos. Ever since they were reintroduced into the wild in 1992, a wild population has been rebuilt despite a few setbacks in Mongolia.

Przewalski-Horse

Healthy intestine, healthy animal

Improved intestinal health in animals leads to healthier animals, better foodstuff and reduces the ecological footprint. The Animal Gut Health research cluster comprising several institutes and clinics of Vetmeduni Vienna organised the second symposium on intestinal health in November 2012. The intrauniversity cluster aims to bridge the gap between basic research and practical application. By knowing the interactions between various types of bacteria in the animal's intestine, the feed can be adapted to the needs of the animal.

Reproductive medicine for stallions

In September 2012, almost 200 scientists from 22 nations came together to discuss current issues pertaining to the keeping of stallions and reproductive medicine for stallions. The event revolved around new findings in semen testing and conservation, modern reproductive technologies and diseases of the reproductive system of stallions.

International Hibernation Symposium

The Research Institute of Wildlife Ecology of Vetmeduni Vienna organised an International Hibernation Symposium at Semmering in August 2012. More than 100 participants from 18 nations attended the symposium, many of whom were young scientists.

Rehabilitation and physiotherapy in veterinary medicine

This unique Symposium on Veterinary Rehabilitation and Physical Therapy (ISVR 2012) took place in August 2012 at Vetmeduni Vienna. Every second year this event brings together people from a wide variety of veterinary professions to discuss how veterinarians can best meet the physiological and clinical needs of their animal patients. Aside from being an interdisciplinary exchange, the conference provided an opportunity for individual symposia on topics including canine hip joint dysplasia diagnosis or neck problems in horses.

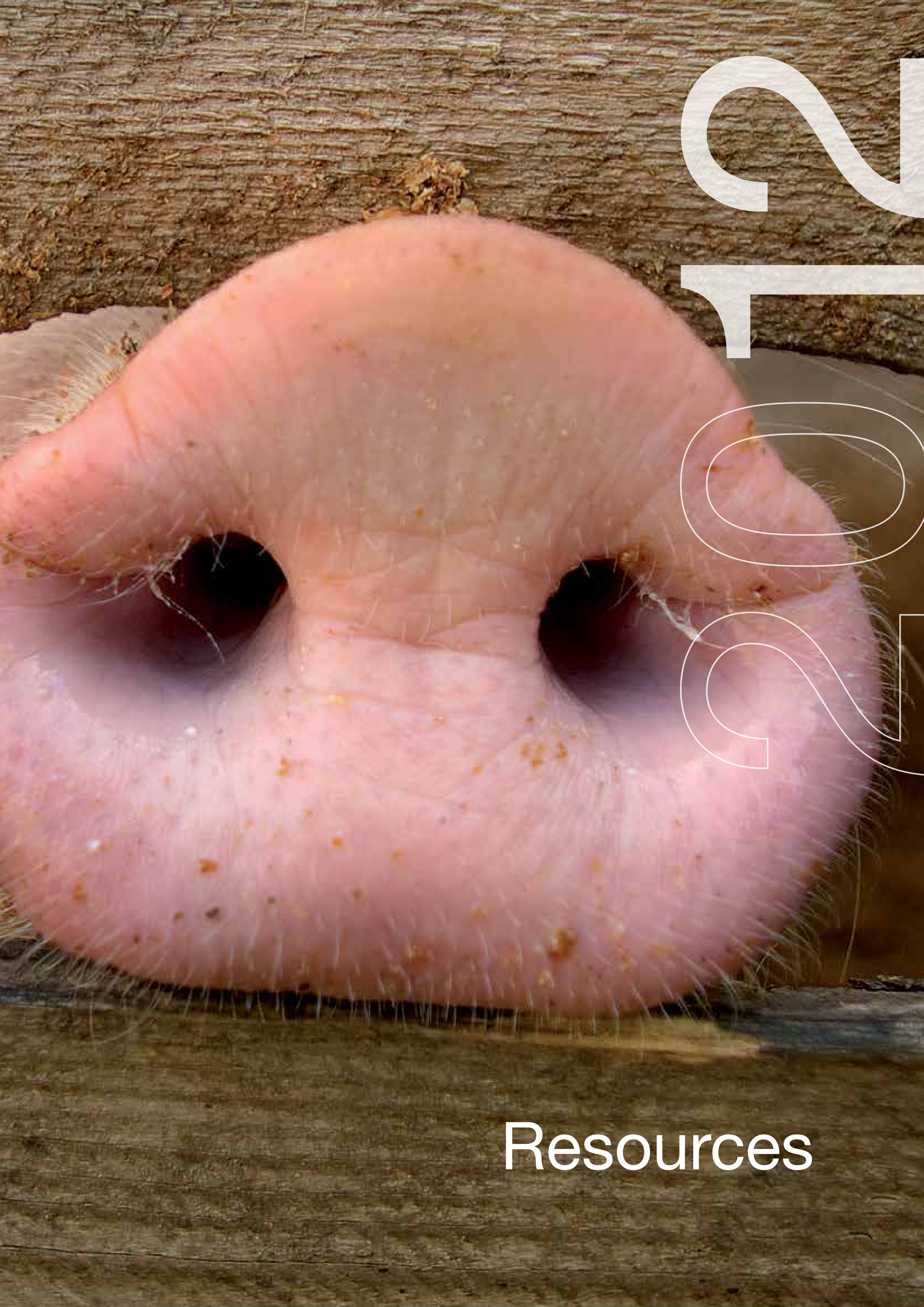
Dog on a water treadmill

Parasite infestation in poultry

Together with the London Royal Veterinary College, in July 2012, the Clinic for Avian, Reptile and Fish organised a symposium in Vienna on protozoic infections in poultry. The international round of experts discussed current research findings on the pathogens Eimeria and Histomonas meleagridis. Even though the pathogens have been known for more than a hundred years, they still pose a major economic threat for poultry farmers. One of the main topics of the symposium concerned findings relating to new treatment options for histomoniasis because previously used methods are no longer approved.

Non-invasive hormone level testing

In September 2012, Vetmeduni Vienna organised together with the International Society of Wildlife Endocrinology a five-day international conference on the topic of non-invasive hormone level testing in animals. At this interdisciplinary event, experts from all over the world discussed successful methods that analyse the stress and reproductive status without being invasive to animals.


2012
Resources

Positive result

2012 was a stable and successful year for Vetmeduni Vienna. With a profit of 837,000 Euro, the annual financial statements of 2012 showed a better result than expected. The University was able to realize all investments in technical and scientific institutions and infrastructure with its positive operative cash flow. A major building project was the establishment of a new pig facility on the Teaching and Research Farm which was started thanks to special project funding provided by the federal government and the province of Lower Austria. The IT Department focused its activities in 2012 on integrating inhomogeneous administration systems.

Constructing the new pig facility on Teaching and Research Farm of Vetmeduni Vienna

Annual financial statements

Using its own assets and partly special project funding provided by the federal government the University of Veterinary Medicine, Vienna was able to invest 9.1 million Euro into tangible assets in 2012. The largest investment amounting to approximately 2.6 million Euro was made for the completion of the first building stage of the Medau pig facility on the Teaching and Research Farm operated by Vetmeduni Vienna. The total cost of the new facility is approximately 4.8 million Euro.

Total revenues in 2012 amounted to 116.8 million Euro; 78 per cent of which originated from the national global budget and 22 per cent from research funding and contracted research, as well as income generated from tuition fees and other income sources.

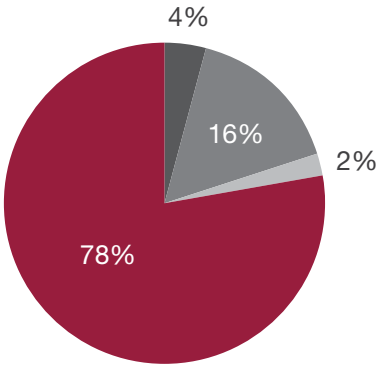
The largest proportion of all expenses, namely 50 per cent, was spent on staff, followed by operating expenses (45 per cent) and five per cent for write-offs.

Investments made into tangible assets	in EURO
Building value	1,082,000
Technical equipment and machines	2,802,000
Scientific literature	827,000
Other expenses, operating and business assets	869,000
Low-value assets	604,000
Construction investments	2,923,000
Total	**9,107,000**

Assets 2012	in EURO
Fixed assets	35,227,000
Circulating assets	35,064,000
Balance sheet total	**70,685,000**

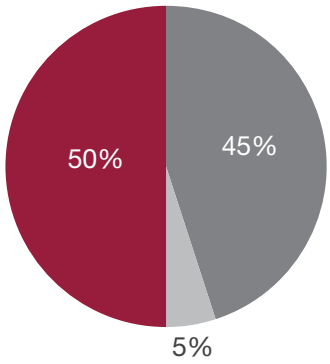
Equity ratio: 63.1 %, Equity-to-fixed-assets ratio: 142.2 %

Total revenues 2012



- Revenue from federal global budget
- Reimbursed expenses according to §26 and revenue according to §27 Universities Act 2002
- Revenue from tuition fees and compensation paid by the government for lost tuition fees as well as university training course fees
- Other revenue and reimbursements

Expenses 2012



- Staff expenses
- Write-offs
- Other operating expenses

Infrastructure and IT

New pig facility

In summer 2012, construction began of a modern show facility on the Teaching and Research Farm (estate Medau) meeting the needs of state-of-the-art, species-appropriate husbandry of pigs. Construction progressed well and the completion of the structural work took place as early as December. The new facility is designed to keep 140 sows and 720 piglets and is also planned to include 600 fattening places. The facility is planned to start operation in September 2013.

Providing orientation

The new signage facilitates orientation at the 15 hectare Vetmeduni Vienna campus and its outposts for visitors. The colour coded signs reflect the corporate design of the University. Additional paths and signposts lead to the institutes and clinics. Both visitors to the animal hospital and students will be guided safely and promptly to their destinations thanks to the new signposts and building signs. In the next adaption stage, monitors displaying updates and news will be installed at the main entrance.

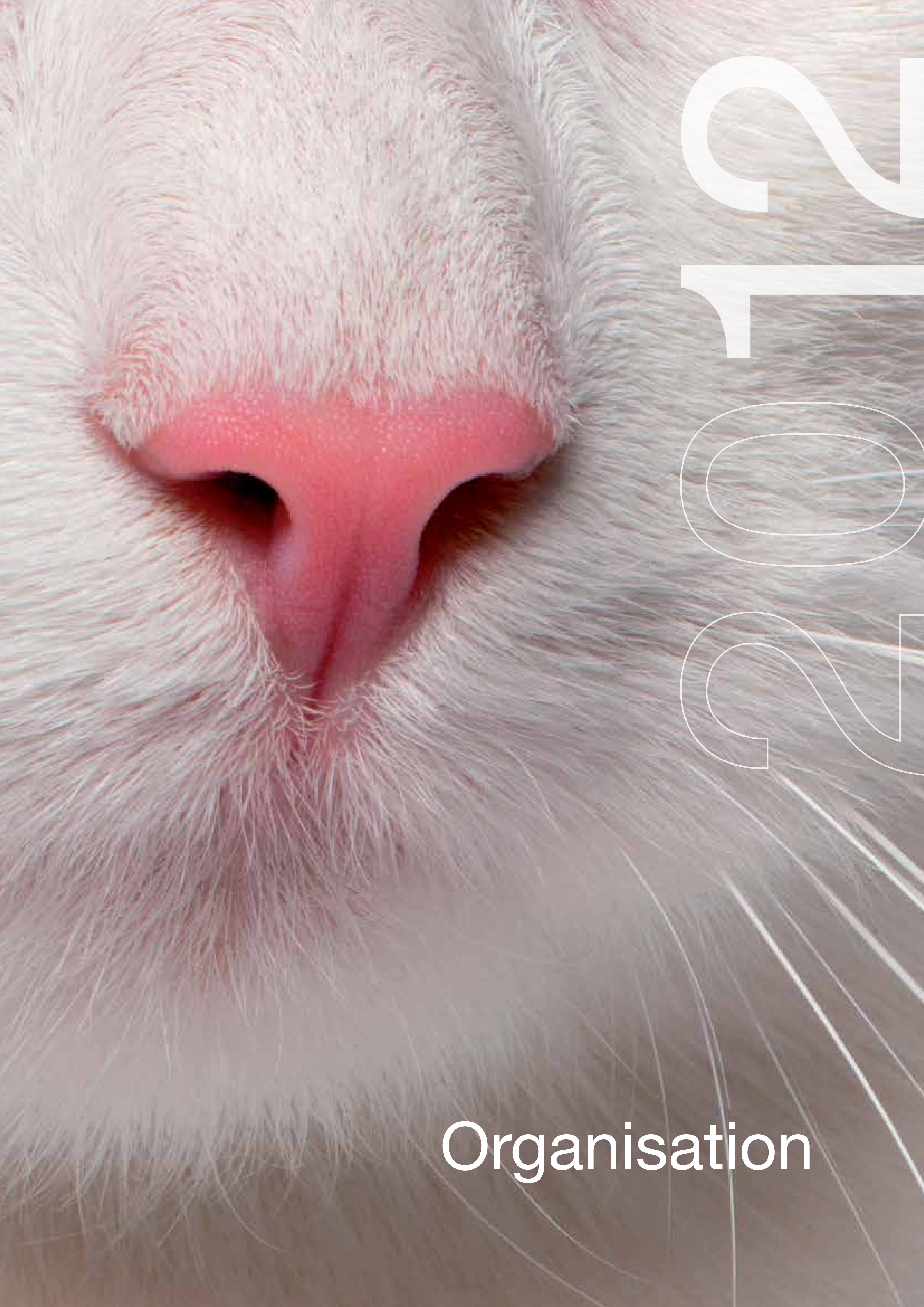
Clever use of IT

The Vetmed3i project evaluates the university management systems with the aim of integrating work processes and individual processes with the IT landscape and optimising the internal information systems. In a first step, the existing landscape system and its use were evaluated and requirements for the future determined. After the prioritisation of the results, there were four priorities that are now in the implementation phase:

- Optimisation of the reporting and planning processes
- Optimisation and automation of staff core processes
- Optimisation of information and document management
- Contact and Customer Services Management

Streamline processing

In September 2012, Vetmeduni Vienna converted its accounting system to a central invoice receipt system. All invoices are now being received by the accounting department, where they are being scanned and forwarded via SAP to the respective departments/institutes/clinics for further processing. This streamlined electronic processing provides a better overview of all computed invoices and reduces processing time.



2012

Organisation

Organisation

Organisational chart of the University of Veterinary Medicine, Vienna

Governing Bodies of the University

- Senate
- Rectorate
- University Council

Research and Teaching

Department 1

Department of Biomedical Sciences

- Institute of Laboratory Animal Science
- Institute of Medical Biochemistry
- Institute of Pharmacology and Toxicology
  - Clinical Pharmacology
- Institute of Physiology, Pathophysiology and Biophysics
- Pathophysiology
  - Physiology
  - Physiology und Biophysics
- Institute of Population Genetics
- Institute of Animal Breeding and Genetics
  - Molecular Genetics
  - Reproductive Biology
- Bioinformatics and Biostatistics Platform
- Biomodels Austria Platform

Department 2

Department of Pathobiology

- Institute of Anatomy, Histology and Embryology
- Institute of Bacteriology, Mycology and Hygiene
  - Functional Microbiology
  - Clinical Microbiology and Infection Biology
- Institute of Immunology
- Institute of Parasitology
- Institute of Pathology and Forensic Veterinary Medicine
- Institute of Virology
- Clinical Pathology Platform

Department 3

Department/Clinic for Farm Animals and Veterinary Public Health

- Institute of Meat Hygiene, Meat Technology and Food Science
- Institute of Milk Hygiene, Milk Technology and Food Science
- Institute of Veterinary Public Health Institute of Animal Nutrition and Functional Plant Compounds
- Institute of Husbandry and Animal Welfare
- Clinic for Avian, Reptile and Fish
  - Fish Medicine
  - Poultry Medicine
  - Avian and Reptile Medicine
- Clinic for Swine
- Clinic for Ruminants
  - Herd Health Management for Ruminants
  - Ruminant Medicine

Department 4

Department/Clinic for Companion Animals and Horses

- Clinic for Small Animals
  - Anaestesiology and perioperative Intensive-Care Medicine
  - Diagnostic Imaging
  - Obstetrics, Gynaecology and Andrology
  - Internal Medicine Small Animals
  - Small Animal Surgery
- Equine Clinic
  - Equine Internal Medicine
  - Equine Surgery
- Insemination and Embryotransfer Platform
- Radiooncology and Nuclear Medicine Platform

Department 5

Department of Integrative Biology and Evolution

- Research Institute of Wildlife Ecology
- Konrad Lorenz Institute of Ethology

Holdings

- VetWIDI Forschungsholding GmbH

Interuniversity Institutions

- Messerli Research Institute
- Department for Agrobiotechnology (IFA Tulln)

Interinstitutional Establishments

- Graf Lehndorff Institute for Equine Science

Service and Administratives

Rector

Service and Administratives:

- Public Relations
- Legal Services
- Office of the Rectorate

Staff Positions:

- Reporting and Development Planning
- Internal Revision

Vice-Rector for Resources

Service and Administratives:

- Research Support and Innovation
- International Relations

Staff Position:

- Quality Management

Central Special Facility:

- VetCore

Vice-Rector for Resources

- Staff and Infrastructure Management
  - Buildings Management
  - Facility Services
  - Information and Knowledge Management
  - IT Services
  - Human Resources
  - Staff Development
  - University Library
- Finance and Business Operations
  - Controlling
  - Financial Services

Staff Position:

- Strategic Controlling

Vice-Rector for Study Affairs and Clinical Veterinary Medicine

- Animal Hospital Management
  - Pharmacy

Service and Administratives:

- Student Services
- Centre for Study Affairs

Central Special Facility:

- Teaching and Research Farm

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