

18

19

20

25

Statements:
Matthias Gauly,
Michaela Schaffhauser-Linzatti,
Birgit HocheneggerStoirer

Statements: Magdalena Beer, Herwig Grimm and Sabine Hammer Statements: Martina Marchetti-Deschmann, Mathias Müller, Ludwig Huber Statements: Barbara Bockstahler, Jessika-M. Cavalleri, Andrea Buzanich-Ladinig

34

36

38

5

University

Students

12

13

16

Research

University Clinics

New Professor-

News Flashes Study 2024

Current Research Projects

'Residency' Training Programmes

New Professorships

Graduates

Newly Approved Research Projects at a Glance 3 Tesla Magnetic Resonance Imaging

News Flashes University 2024

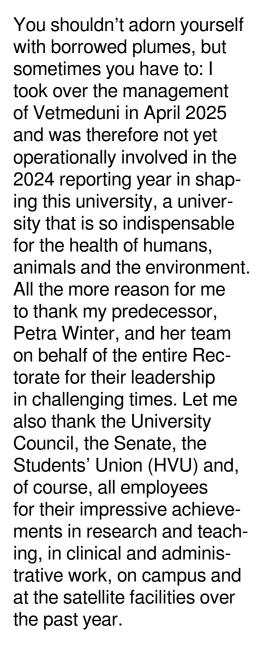
<sup>10</sup> Sites

29

Science Communication



Matthias Gauly Rector





Michaela Schaffhauser-Linzatti Chairwoman of the University Council

The past year was characterised by two major priorities: in the foreground, and most directly noticeable for everyone, was the implementation of vetmeduni+, which was successfully launched thanks to the great commitment of all those involved in providing Vetmeduni with the necessary structures of a modern university. The Rectorate's successful negotiations on the Performance Agreement will only become apparent in the coming years in that it will provide Vetmeduni with a financial framework that continues to hedge its research and teaching programme. The University Council congratulates the university's governing bodies on their outstanding leadership not only for the past year but also for the clearsighted course they steered throughout the entire term of the Rectorate, thus leading Vetmeduni into an internationally competitive future.

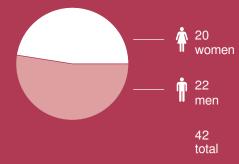


Birgit Hochenegger-Stoirer Vice-Rector for Finance, Digitalisation and Innovation

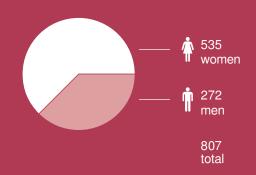
Handing over the new VetBioModels core facility, receiving the IBN award for the Compliance Circle of Universities project or giving the green light for the overhaul of existing structures and the building of new ones at the research centre Wilhelminenberg are but a few of the milestones achieved last year. I am also delighted that Vetmeduni was again certified as a family-friendly university (hochschuleundfamilie): this confirms our commitment to reconciling careers or studies with family life in a wide variety of areas. Aware of the responsibility that my new role as Vice-Rector entails, I wish to thank my predecessor Manuela Raith for her work and look forward to providing new impetus based on this sound foundation.

# University

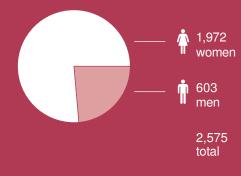




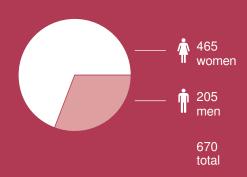
### ACADEMIC STAFF



**STUDENTS** 



## ADMINISTRATIVE AND SUPPORT STAFF





STAFF

1,477



**STUDENTS** 

2,575

total (degree and non-degree students)



ANIMAL PATIENTS

30,265

total (figures exclude productive poultry and visits for the purpose of herd health management)



### PILOT YEAR FOR MAJOR **VETMEDUNI+ PROJECT**

The university-wide participatory process vetmeduni+ kicked off in 2023 under the motto 'Shaping the future together', thus paving the way for a new and flexible structure at the university. Since January 2024, Vetmeduni has been operating on the basis of a new Organisation Plan. Now Vetmeduni boasts larger units, clearly defined responsibilities and new options for flexibility and targeted action, including at administrative levels. Thanks to this reorganisation, Vetmeduni is fit for the future and can meet the challenges in research, teaching, clinical and administrative work with even greater flexibility. On 24 October 2024, the vetmeduni+ Update in Vienna's Marx Hall marked the both informative and festive conclusion of the project. vetmeduni+ has been part and parcel of everyday life at the university ever since.



For more information read here: https://www.vetmeduni. ac.at/en/university/ infoservice/news/ news-detail/vetmedunireorganises-itself

## New **Professorships**



**Doris Wilflingseder Infectious Diseases** 



**Sebastian Glatt Systems Genetics** 



**Marion Bankstahl** Pharmacology and Toxicology



Clair Firth **Veterinary Public Health** 



# New Associate and Assistant Professorships



Nora Biermann Equine Surgery



Ivana Calice Anaesthesia, Analgesia and Perioperative Intensive-Care Medicine



Silvio Kau Morphology



Moritz Bünger Porcine Health Management Focussing on Infectious Diseases



Katarzyna Sitnik Virology – Mechanisms and Dynamics of Viral Infections



Barbara Metzler-Zebeli Sustainable Plant Metabolite Animal Interactions



Jule Michler Physiology



Gema Alama Bermejo Fish Health



Stefanie Riemer Companion Animal Management

## VetmedRegio Regionalisation Initiative

Vetmeduni is based in Vienna. However, as a veterinary university for the whole of Austria, it assumes socio-political responsibility for the entire federal territory. The Vetmed-Regio Initiative aims to improve veterinary care for farm animals in rural regions, promote the return of our highly trained alumni to their home turf and raise the status of veterinarians in society. The networking events organised by Vetmeduni between interested students and practicing veterinarians from Austria's federal states provide a major impetus. At these large get-togethers in 2024, prospective veterinarians could exchange ideas with veterinarians from Styria, Upper Austria and Tyrol and network for their future careers. The Regionalisation Initiative Vetmed-Regio starts even earlier with the extracurricular course 'Animals and Us' as part of the Science Academy Lower Austria. Young people aged 14 to 16 interested in learning about the correlations between animal welfare, food safety and climate protection can attend 15 workshops between February 2024 and June 2025. At the VetINN-Sights Summer School in Tyrol, interested young people also had the opportunity to find out about a possible future study programme in veterinary medicine. Small children, too, were offered a wide range of programmes in 2024 to explore veterinary medicine in a fun way at the Children's Universities in Vienna and Graz, at the Lippizaner stud farm in Piber, the Children's Summer University in Innsbruck and the Lower Austrian Summer School.



For all initiatives of VetmedRegio go to: https://www.vetmeduni.ac.at/universitaet/profil/vetmedregio



Interested students at the 'Tyrol meets Vienna' networking event in November 2024.

## SDG Sustainability Campaign

The successful online format VetmedTalk was continued in 2024 with many exciting experts moderated by science communicator Bernhard Weingartner. The four VetmedTalks revolved around the yearly changing UN Sustainable Development Goals (SDGs), the 2024 goal being SDG 2 'Zero Hunger'. The talks began with 'Food for all!', followed by 'What makes our food nutritious?' and 'Are healthy animals productive animals?'. The VetmedTalks ended with the topic 'Sustainability and animal welfare in agriculture'. Discussions centred on socially relevant themes such as food supply security, digital data collection in agriculture or intestinal health in humans and animals.



For an overview of all VetmedTalks held so far go to: https://www.youtube.com/playlist?list= PLQkwsVEtJy1y79\_aUiguMjcS6eEVZc2RX



For an overview of SDG measures taken go to: https://www.vetmeduni.ac.at/en/university/ profile/sustainability/sdg



### Vetmeduni Alumni Meeting

The biomedicine graduates were the first to meet on 27 May 2024 at the 7th Comparative Medicine Symposium. The big alumni reunion followed on 20 June 2024. Hosted by alumnus and author René Anour, the programme included personal testimonials from graduates, a round of talks with Rector Petra Winter, a varied programme of guided tours and a relaxing, convivial finale.

Focus on careers: upon graduation, Elisabeth Vindel went to France, where she worked in the dairy industry and later for many years for the World Organisation for Animal Health or WOAH. Alongside her practice, Doris Gansinger combines her professional interests in poultry, phytomedicine and chemistry by developing herbal feeds in conjunction with the related online shop and by initiating the Seyringergut Continuing Education Centre. Small animal internist Maximilian Pagitz is co-founder of the veterinary practice Althangrund plus Vice President of the Vienna chapter of the Austrian Veterinary Chamber. As different as the careers of these alumni were, they all agreed on the top quality of training at their alma mater that had helped open up many opportunities and pathways.

The series on career pathways was continued in 2024. The interviews with alumni about their professional challenges are published periodically in the Newsletter and VETMED Magazine showing the range of veterinary roles. Yet another reunion took place at the alma mater on 22 November 2024. The doctoral graduates of 1973 and 1974 were invited to the Great Hall to be presented with a golden doctoral certificate during a special ceremony.



Alumni Newsletter of Vetmeduni: https://www.vetmeduni.ac.at/alumni/ alumni-newsletter

# Remembrance Instead of (Keeping) Silence

Our work of remembrance received a further major impetus in 2024. The lecture series on the topic 'From (keeping) silence to remembrance. Universities and their handling of persecution and marginalisation 1933-1945' was completed at the end of January. All lecture content is summarised in a brochure, which was distributed to staff and students across the university on various occasions such as the welcome of first-semester students, other welcome events, academic ceremonies, etc. The video recordings of all lectures are available to everyone on the university's website.

The lecture series provided valuable ideas for Vetmeduni's activities of remembrance. For instance, it was often suggested to take a closer look at the war memorial (in the inner courtyard of the Rectorate building) and the rectors' plaque. The historian Alexander Pinwinkler carried out fundamental search and research work on both memorials as part of the cooperation with the Association for the Scientific Reappraisal of Contemporary History (Verein für die wissenschaftliche Aufarbeitung der Zeitgeschichte). For the first time, results are now available on the genesis of the war memorial and comprehensive biographies of the rectors in the context of National Socialism. The research results form an important basis for further policies of remembrance. Since 2024, periodic exchange meetings have been held for staff and students to address more deeply the culture of remembrance at Vetmeduni.



For all activities go to: https://www.vetmeduni.ac.at/erinnern

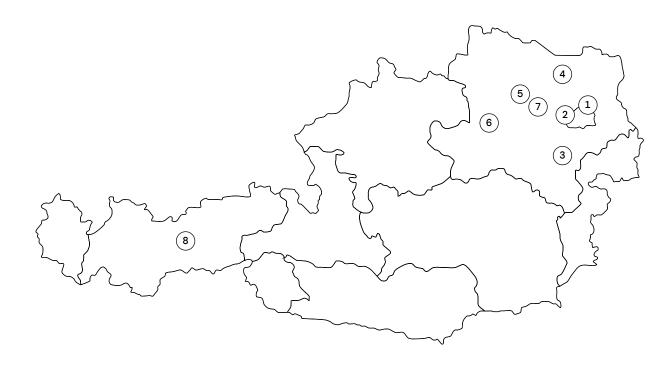


What a joyful reunion: alumni from different cohorts accepted the invitation of their alma mater to meet former colleagues.



A tour of the Pathology Museum under the guidance of Herbert Weißenböck captivates alumni.

## Sites



(1

**Vetmeduni Campus** Floridsdorf, Vienna



Research Institute of Wildlife Ecology (FIWI), Konrad Lorenz Institute of Ethology (KLIVV) Ottakring, Vienna 3

### VetFarm

Kremesberg, Pottenstein, Lower Austria

- · Rehgras estate, Furth/Triesting
- · Haidlhof estate, Bad Vöslau
- · Medau estate, Berndorf



Wolf Science Center (WSC) Ernstbrunn, Lower Austria



Satellite of the Austrian Ornithological Centre (AOC) Seebarn / Grafenwörth, Lower Austria 6)

Reproduction Center Wieselburg (RCW) Wieselburg, Lower Austria



Interuniversity Department for Agrobiotechnology (IFA Tulln, Lower Austria) together with the Vienna University of Natural Resources and Life Sciences (BOKU) and the Vienna University of Technology

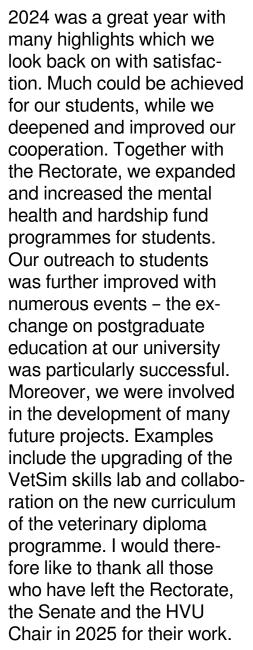


Satellite Facility for Ruminants in the Alpine Region Innsbruck, Tyrol





Magdalena Beer Chairwoman of the Students' Union (HVU) of the University of Veterinary Medicine, Vienna



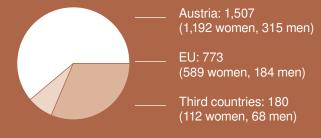


Herwig Grimm and Sabine Hammer Chair of the Senate of the University of Veterinary Medicine, Vienna

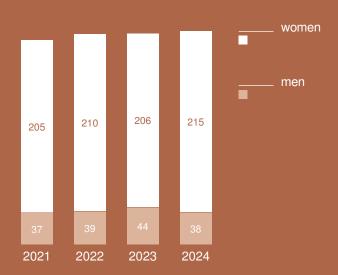
We would like to thank the Rectorate under Petra Winter for its cooperation with the Senate in recent years, which have been characterised by numerous challenges. During this time, important projects such as the new Organisation Plan and the remodelling of organisational structures were implemented. This reorganisation programme of our university kept us very busy in 2024. In addition, considerable progress was made, particularly in research, teaching and growing partnerships and third-mission activities. Dialogue and commitment have provided key impetus for the future of our university enabling us to be optimistic about the developments to come.

## **Students**

## DEGREE STUDENTS BY COUNTRY OF ORIGIN



## QUALIFIED FOR ADMISSION TO THE DIPLOMA PROGRAMME IN VETERINARY MEDICINE



APPLICANTS/ADMISSIONS 2024	APPLICANTS			QUALIFIED	QUALIFIED FOR ADMISSION		
(FOR THE 2023/2024 ACADEMIC YEAR)	WOMEN	MEN	TOTAL	WOMEN	MEN	TOTAL	
Diploma Programme in Veterinary Medicine	1,016	147	1,163	215	38	253	
Bachelor's Programme in Biomedicine and Biotechnology	134	48	182	52	32	84	
Master's Programme in Comparative Biomedicine	27	5	32	24	4	28	
Interdisciplinary Master's Programme in Human-Animal Interactions (IMHAI)	29	6	35	22	2	24	
Master's Programme in Precision Animal Health	6	15	21	6	15	21	
Total	1,212	221	1,433	319	91	410	

No figures are available for the Master's Programmes in Wildlife Ecology and Wildlife Management as well as Evolutionary Systems Biology since admission to these programmes is not managed by Vetmeduni.

No admission procedure took place for the Bachelor's Programme in Equine Sciences for the 2024/25 academic year since this programme is about to expire.

### **Courses of Study**

Diploma Degree Programme
Veterinary Medicine

Bachelor's Programmes
Biomedicine and Biotechnology

### Equine Sciences<sup>1</sup>

Master's Programmes

Master's Programme in Comparative Biomedicine – Infection Biomedicine and Tumour Signalling Pathways

Interdisciplinary Master's Programme in Human-Animal Interactions (IMHAI)

Master's Programme in Precision Animal Health

Master's Programme in Wildlife Ecology and Wildlife Management<sup>2</sup>

Master's Programme in Evolutionary Genomics and Systems Biology<sup>3</sup>

**Extension Programme** 

Initial Consultation and Care of the Small Animal Patient

Veterinary Medicine

PhD Programme

- <sup>1</sup> in cooperation with the University of Natural Resources and Life Sciences (BOKU), Vienna. This programme will be phased out. It is no longer possible to be (re-) admitted to this programme.
- $^{\rm 2}$  in cooperation with the University of Natural Resources and Life Sciences (BOKU), Vienna.
- <sup>3</sup> in cooperation with the University of Vienna.

# Online Information Events and Marketing Measures for Study Programme Applications

The well-tested online information events were resumed in 2024 before the beginning of the application phase. In order to provide a long-term source of information for prospective students, the video recordings continue to be available on Vetmeduni's YouTube channel. A social media campaign, including video content, was implemented in December 2024 to increase the visibility of the Master's Programme 'Digitalisation in Animal Health Management'.

Although tracking of website visitors is restricted by data privacy regulations, we have seen that the above policies result in a significant rise in applications, in particular for the Master's programmes. This highlights the need to continue this marketing strategy to raise awareness of study programmes going beyond the veterinary sector.



### **Education Awards**

The Teaching Vets Symposium on 16 December 2024 was already the tenth of its kind within the Vetmeduni's symposium series for innovative didactics. In his keynote speech on 'Artificial Intelligence (AI) – what does it bring to my teaching?', Nikos Basbas from Tilburg University addressed the use, effects and developments of artificial intelligence in teaching. During this event, prizes were awarded in the categories of Teaching Vetmed and Biomedicine/IMHAI, Instructor and Students of the Year as well as the Student Award of the Students' Union (HVU). The awards recognise the exceptional commitment and outstanding achievements of the award winners in teaching.



For all award winners go to: https://www.vetmeduni.ac.at/universitaet/ infoservice/news/news-detail/teachingvets-symposium-10-preise-fuer-herausragendelehrende



### Extension Programme: Initial Consultation and Care of the Small Animal Patient

In October 2024, the extension programme 'Initial Consultation and Care of the Small Animal Patient' was successfully launched. This pre- and postgraduate programme offers students the opportunity to deepen, expand or refresh the theoretical knowledge and clinical practical skills acquired during their undergraduate studies in a targeted manner.

A particular highlight of the start of the programme was the introduction of an e-logbook as a pilot project. This digital tool enables transparent documentation of the acquisition of practical clinical skills and makes it easier for both students and teachers to track individual learning progress. Implementation of this system represents a major step in modern training and contributes to the continuous development of veterinary teaching.



For all information on the extension programme go to:

https://www.vetmeduni.ac.at/en/studies/ degree-programmes/complementary-programmeinitial-consultation-and-care-of-thesmall-animal-patient

# Veterinary Public Health Qualification

In the winter semester 2024/25, the fourth round of the university course 'Veterinary Public Health Qualification' began under the new scientific leadership of Clair Firth. Administration, too, has been migrated and is now the responsibility of Study Affairs under the direction of Alexander Jekel. Successful completion of this course is required for being assigned and appointed to official veterinarian activities. Accordingly, official veterinarians from all nine federal states are among the participants. In addition, employees from two federal ministries, from the Austrian Agency for Health and Food Safety (AGES) and the Austrian Animal Health Service (TGD) also take part. After successful completion of the first semester, everyone involved is looking forward to the remainder of the course with anticipation and interest.



# Digital e-Logbook with Pebble Pad

In October 2024, Vetmeduni launched a pilot project for the use of the logbook and portfolio software PebbelPad. Students of the extension programme Initial Consultation and Care of the Small Animal Patient were the first to document the general and clinical practical skills they have acquired in e-logbooks. This new form of documentation improves the quality and transparency of training. In addition, innovative teaching methods such as blended learning and flipped classroom models have been successfully implemented with PebblePad. These approaches promote an interactive, student-centred learning environment and supplement traditional classroom teaching with digital elements. The knowledge gained will serve as a basis for the use of PebblePad in other areas of study in the future, particularly in clinical rotations and practical training.

## Graduates

2023/2024	WOMEN	MEN	TOTAL
Diploma Programme in Veterinary Medicine	153	40	193
Bachelor's Programme in Biomedicine and Biotechnology	17	7	24
Bachelor's Programme in Equine Sciences <sup>1</sup>	9.38	0	9.38
Master's Programme in Comparative Biomedicine – Infection Biomedicine and Tumour Signalling Pathways	5	1	6
Interdisciplinary Master's Programme in Human-Animal Interactions (IMHAI)	1	0	1
Master's Programme in Wildlife Ecology and Wildlife Management <sup>2</sup>	2.1	0.7	2.8
Master's Programme in Evolutionary Genomics and Systems Biology <sup>3</sup>	1.12	2.24	3.36
Doctoral Programme in Veterinary Medicine	15	6	21
PhD Programmes	17	10	27
Total	220.6	66.94	287.54

Note: In the case of cooperation partners, graduates are counted according to the allocation formula.

<sup>&</sup>lt;sup>1</sup> Bachelor's Programme in Equine Sciences

<sup>0.67</sup> Vetmeduni; 0.33 University of Natural Resources and Life Sciences (BOKU).

<sup>&</sup>lt;sup>2</sup> Master's Programme in Wildlife Ecology and Wildlife Management

<sup>0.1</sup> Vetmeduni; 0.9 University of Natural Resources and Life Sciences (BOKU).

<sup>&</sup>lt;sup>3</sup> Master's Programme in Evolutionary Systems Biology

<sup>0.28</sup> Vetmeduni; 0.72 University of Vienna.





Martina Marchetti-Deschmann Vice-Rector for Research, International Affairs and Sustainability

I have always perceived Vetmeduni as a successful research institution. By the same token, a survey of 2024 shows that excellent research was conducted and driven forward within this portfolio, largely shaped by my predecessor Otto Doblhoff-Dier. A key focus was on the Uni-Med-Impulse 2030 programme, launched in 2020, and on preparations for the establishment of the Ignaz Semmelweis Institute. The first interuniversity institute of its kind, it took up work in 2025. Moreover, we pressed ahead with the transdisciplinary One Health network and continued to expand the One Health PhD programme. 2024 was also a year of diverse and successful applications for thirdparty funded projects; our researchers also succeeded in participating in numerous excellence programmes and upholding Vetmeduni's reputation.



Mathias Müller Head of the Department of Biological Sciences and Pathobiology

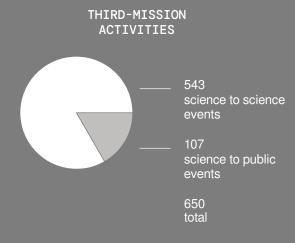
The preclinical disciplines in the Department of Biological Sciences and Pathobiology are looking back on the first year of their merger. We owe special thanks to the team of administrators who did a great job in overcoming new challenges. We would also like to thank all employees for their patience in adapting to the structural changes. Armin Saalmüller and Franz Schwarzenberger have taken retirement. We very much regret that Michal Kyllar has left the campus. A warm welcome to Marion Bankstahl (Pharmacology and Toxicology), Doris Wilflingseder (Infectious Diseases) and Sebastian Glatt (Systems Genetics). We wish them all good health, much success and look forward to a fruitful collaboration.



Ludwig Huber Head of the Department of Interdisciplinary Life Sciences

We have been able to substantially raise the number of professors at the Department of Interdisciplinary Life Sciences. Five new assistant professors according to §99(5), one university professor according to §99(1) and the first university professor according to §99(4) at Vetmeduni have significantly increased the research potential of the department. With two postdocs successfully completing their qualification agreement just before the end of the year, this positive development will continue in 2025. Finally, the department's potential will get yet another boost from the expansion phase of the Messerli Research Institute agreed towards the end of the year between the Messerli Foundation and the three partner universities (Vetmeduni, University of Vienna, Meduni Vienna).

## Research





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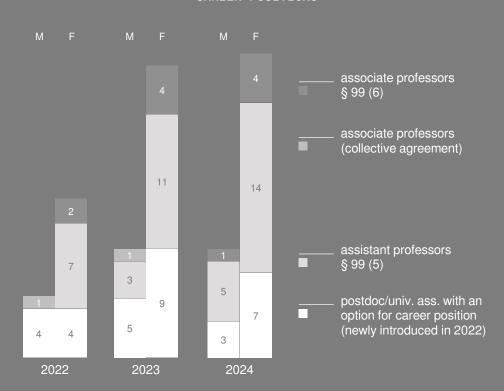
ACADEMIC STAFF TOTAL (2023: 801)



944

SCIENTIFIC PUBLICATIONS TOTAL

### CAREER POSITIONS



The great scope of science represented at Vetmeduni is reflected in the following selection of research projects either approved or continued in 2024.



## Use of preclinical in vitro mouse models

### Project leader: Maik Dahlhoff Funding agency: EU (Commission of the European Union)

The use of mouse models in biomedical research is of key importance for the understanding of human diseases due to their genetic and physiological similarities to humans. However, concerns about ethics and transferability have resulted in a shift towards alternative methods such as complex in vitro models.

PRIM-TECH3R addresses this shift by applying advanced technologies to develop reliable mouse and human in vitro models for preclinical studies intended to reduce the use of animal models. Through standardised protocols and robust validation procedures, the project will generate cutting-edge in vitro models based on mouse disease models that complement existing in vivo models. The project will create a comprehensive repository for preclinical resources, ensure open access and foster collaboration between research infrastructures and the biomedical industry. By realising these goals, PRIM-TECH3R aims to advance the state of the art in research infrastructures, facilitate exploitation of the results by industry and contribute to transformative changes in biomedical research practice.



## Dexterity in tool use of Goffin's cockatoos

### Project leader: Alice Auersperg Funding agency: FWF – Austrian Science Fund

To achieve a better understanding of the evolution of animal tool use, our focus should not only be on primates but also on other animals which have developed similar skills independently. Researchers led by Alice Auersperg have shown that Goffin's cockatoos are among the most ingenious tool users apart from primates. They use techniques comparable to those of the great apes, although they lack behaviours such as nest building or food caching which normally favour tool use in birds, meaning their use of tools is invented spontaneously and primate-like. Despite our knowledge of the nature of tools used by animals, we know little about the underlying mechanisms: How is tool use invented and what are the processes behind it? A deeper understanding of these mechanisms is necessary to comprehend the nascency of such technologies. In the current project, researchers from the University of Veterinary Medicine, Vienna, and the National University of Singapore are investigating the tool use of a Goffin population in Singapore. These birds are forced by competition with other parrots to look for difficult-to-access but widely available resources such as sea almonds. To this end, they have developed two creative techniques for cracking the hard shells: a hole is drilled, and the seed contents are either scraped out with a splinter of wood or caused to burst with grass and leaves. The members of the research team want to investigate how the birds' bodies and the properties of the fruit influence the use of tools.







# Haemoglobin as an essential food source for miniaturised fish parasites

### Project leader: Astrid Holzer Funding agency: FWF – Austrian Science Fund

Myxozoans are microscopic endoparasites which are related to jellyfish and cause diseases in fish. Some species are increasingly present in aquacultures due to climate change, with no treatments or vaccines currently available.

Our model organism Sphaerospora molnari is a carp parasite that multiplies in blood and causes severe anaemia in its host, a common symptom of early infections by myxozoans. Consequently, we believe that myxozoans utilise red blood cells as an essential source of energy. In this project, we characterise the cascade of haemoglobinolytic enzymes in S. molnari. We identify the interaction partners and intracellular localisation of key enzymes and determine the impact of missing enzymes on parasite development by genome editing. In addition, we study the molecular interaction between isolated red blood cells and parasites, since red blood cells have immune functions in bony fish and the parasites have most likely developed evasion strategies against them. The project will provide an initial knowledge base on haematophagy in myxozoans and will greatly improve our understanding of host exploitation and mutual adaptation.

# Cognitive-sensory navigation in rainforest frogs

### Project leader: Andrius Pasukonis Funding agency: FWF – Austrian Science Fund

Rainforests are extremely complex environments. Nevertheless, animals are able to navigate them precisely and find important resources. One outstanding example is the poison dart frog, which can detect even the most minuscule breeding waters throughout the forest. This ability challenges the assumption that amphibians do not have the necessary flexibility or cognitive skills for complex tasks of navigation. The present research project aims to investigate the sensory and cognitive strategies of frogs in finding, assessing and navigating breeding grounds.

The study explores three main questions: How do frogs discover new breeding waters, how do they assess their quality and how do they learn where they are located? The hypothesis is that poison dart frogs can recognise small bodies of water by the calls of other frog species. When they approach a body of water, they might use odours such as the scent of stagnant water to determine its location and suitability. Frogs could then combine sounds, smells and visual landmarks to integrate the location into a mental map.

Research will be tested in field experiments and under husbandry conditions, with sound and odour cues as well as cognitive aspects of navigation being studied. The aim is to better understand the sensory and cognitive abilities of frogs.

### Perception of causality and animacy in a species comparison

Project leader: Christoph J. Völter (Vetmeduni) and Jonathan Kominsky (Central European University) Funding agency: FWF – Austrian Science Fund

Humans and dogs have evolved in a world that obeys Newton's laws: objects only move if they are set in motion by something – be it a collision with another object or, in the case of living beings, by some kind of inner drive. Consequently, humans and dogs should be able to tell whether something is alive by watching how it moves.

In this collaborative project with the Central European University, PhD students Leslie-Ann Eickhoff and Beyza Gokcen Ciftci are investigating whether dogs and infants have similar expectations as to basic physical events and interactions of objects, such as collisions. They also study whether both groups assume that self-moving objects have goals and intentions, and whether they tend to approach or avoid them. Another focus is on the differences between dogs and humans and their understanding of such events. To this end, the researchers use eye tracking to measure eye movements and pupil sizes. Since the pupils of both species dilate when they are surprised or excited, this method provides valuable insights into the cognitive processes involved.







### Research project on the function of LETM1 and mitochondria in cell metabolism

### Project leader: Karin Nowikovsky Funding agency: FWF – Austrian Science Fund

Mitochondria are the power centres and metabolic hubs of eukaryotic cells alternating between active and dormant states as required, which influences their shape. Mitochondrial defects can cause severe, often life-threatening diseases.

Our focus is on the LETM1 gene, which plays a central, though not yet fully understood, role. LETM1 is important for the cationic balance in mitochondria. Any loss of LETM1 function will lead to pathological swelling of the mitochondria, thus causing them to lose their metabolic flexibility and resulting in incidences of sequelae. A complete loss of LETM1 is incompatible with life, while a loss on one allele is associated with epilepsy and developmental disorders. In newborns and babies with mutations in both copies of the gene, severe neurological, muscular and metabolic symptoms occur, which are usually accompanied by a poor prognosis. Most pathogenic mutations in the LETM1 gene are located in the LETM domain, which refers to its central role in the development of disease.

We are investigating which metabolic and cation transport pathways are regulated by this domain with the aim of developing targeted therapies for LETM1-related disorders.

### Development of the scientific basis for an Austrian fallen stock monitoring system (FaTiMon)

### Project leader: Johannes Baumgartner Funding agency: Federal Ministry of Social Affairs, Health, Care and Consumer Protection

The studies on animal welfare-related changes in fallen stock by Baumgartner et al. (2012–2015), Große Beilage (2018), and Lehnert (2022) are to provide the background for a specifically Austrian monitoring system of fallen cattle, sheep, goats and pigs to be developed and reviewed with regard to issues of animal welfare. For this purpose, the findings from various related initiatives, such as those of the Austrian rendering plants (TKV) and collection centres as well as the German National Animal Welfare Monitoring Programme – NaTi-Mon (2023), will be taken into account.

The primary objective of FaTiMon is the creation and practical review of a scientifically sound and standardised list of findings on changes in cattle, sheep, goat and pig carcasses related to aspects of animal welfare. In future, this should enable veterinary authorities to conduct a standardised assessment of the fallen stock handed in (comparable to the SFU code list).

In close cooperation with rendering plants, collection centres, regional veterinary authorities and the Austrian Agency for Health and Food Safety (AGES), the FaTiMon project will also examine preliminary surveys for quantitative and temporal aspects of fallen stock deliveries and analyse them for risk-based inspections of the farms of origin. The project will run from August 2024 to July 2026 and will be carried out in work packages.

### TransformDairyNet: networking to transform European dairy systems

Project coordinator Vetmeduni: Susanne Waiblinger Overall coordination: Siobhan Mullan, University College Dublin Funding agency: EU (Commission of the European Union)

The most important sector of EU agriculture, dairy farming is facing the challenge of having to increase sustainability and animal-friendliness.

TransformDairyNet brings together the expertise of 26 European partners to promote cow-calf contact (CCC) in dairy farming. Dairy producers, veterinarians, scientists and political decision-makers work together in eleven national innovation centres and a European knowledge network. CCC enables contact between calves and cows for months, which may improve animal health, growth and behaviour and increase social acceptance and sustainability within the meaning of the Green Deal. TransformDairyNet aims to accelerate the introduction of CCC by harvesting knowledge, developing new solutions, providing practical training and ensuring long-term networking activities. A multi-actor approach is designed to link scientific findings and practical knowledge, create innovative tools and support farmers through peer-to-peer activities.

Based on cooperation with the EU Farm-Book, the network will continue to exist beyond the duration of the project and contribute to the transformation of milk production.







### Time capsule sequencing

### Project leader: Robert Kofler Funding agency: FWF – Austrian Science Fund

Transposable elements (TEs) are short DNA segments that are replicated in the genome of all species. Normally, they are passed on from parents to offspring. Occasionally, however, they can also be transferred between species. It is entirely unclear how such transmission comes about. The general assumption is that this is a very rare event. We have now been able to identify eleven transmissions of TEs in Drosophila within just 200 years. These TEs increased the genetic material of the flies by about one per cent, the consequences being entirely unclear. We consider such a high number of transmissions to be exceptional and assume that human activity, which for example leads to habitat changes for many species, accelerates the transmission of TEs.

Within the project, we will test the following:

- 1) Do other species show a similarly high number of TE transmissions?
- 2) Can we find risk factors for transmissions?
- 3) Has the rate of transmission accelerated over the last centuries?

To this end, we will draw on various sources of historical material (e.g. specimens from museum collections or insect remains from drill cores). To summarise, we will test whether humans have inadvertently caused contamination of the genetic material of different species by TEs.

### Genetic diversity of Dirofilaria repens and D. immitis

## Project leader: Hans-Peter Führer Funding agency: FWF – Austrian Science Fund

Dirofilariasis (including canine heartworm disease) is an increasingly common zoonotic disease. It is caused by nematodes of the genus Dirofilaria, which are transmitted by mosquitoes. Although these pathogens occur in many regions of the world, there is little knowledge around their genetic diversity (e.g. occurrence of genetic variants and cryptic forms of *D. repens* and *D. immitis*.

Humans, too, can be infected by dirofilariae requiring molecular methods for genetic identification.

The present study aims to investigate the genetic diversity of *D. repens* and *D. immitis* in different countries and continents using modern molecular methods like metabarcoding and genome analyses.

# City-invading mosquitoes of medical importance: habitat preferences and molecular detection in Vienna

Overall leadership: Carina Zittra (University of Vienna) Project leader Vetmeduni: Hans-Peter Führer Funding agency: WWTF – Vienna Science, Research and Technology Fund

Mosquitoes are blood-sucking insects whose females need blood to obtain nutrients for their offspring. During a blood meal, they can transmit pathogens to humans and animals. There are some 52 species of mosquito in Austria, of which around 25 are found in Vienna. Three of these species originate from Asia and some can transmit pathogens. All mosquito species live in an aquatic phase: the females lay their eggs in nearby bodies of water, where larvae hatch and develop.

Mosquitoes are also common in cities, but little is known about their habitats and the effects of climate change. Diseases caused by mosquito-borne pathogens have already been reported in European cities, meaning research on urban mosquitoes is becoming a matter of urgency. The City Invaders project investigates which mosquito species occur in Vienna, where their larvae develop und whether native and Asian species differ. In addition, we seek to develop methods designed to identify mosquitoes using small genomic segments. The project intends to improve our understanding of urban mosquitoes and optimise monitoring and control efforts to minimise the transmission of diseases.





# Towards a much better understanding of BPV1 infections in horses

Project leader: Sabine Brandt Funding agency: FWF – Austrian Science Fund

Bovine papillomavirus types 1 and 2 (BPV1 and BPV2) are very closely related and usually cause harmless warts in cattle. However, these viruses also infect horses and other equidae such as donkeys, mules and zebras. The infection is often associated with the development of locally aggressive skin tumours, so-called sarcoids, which are very resistant to treatment owing to their viral cause.

Although BPV1 is the best-studied animal papillomavirus, it is still unclear how the initial infection occurs in horses and how the virus spreads beyond the tumour in the horse's skin.

The Equine Centre's Research Group Oncology (RGO), led by Sabine Brandt, has succeeded in obtaining funding from the FWF for a three-and-a-half-year project to address this question in depth. The project, which will use innovative 2D and 3D infection models, will involve the RGO as well as VETERM, the VetCore Facility and the Institute of Pathology.

Establishment of the invasive giant liver fluke (Fascioloides magna) as a new model for parasite adaptation

Project leader: Susana Ferreira Funding agency: Austrian Academy of Sciences

The invasive giant liver fluke, *Fascioloides magna*, poses a significant threat to wild and farm animals in Europe. Current measures to control the parasite are limited and have not yet been able to prevent its spread.

The use of revolutionary methods of genomic analysis will help study in greater detail the adaptation mechanisms of this parasite and its possible resistance to anthelminthics (worming drugs). The main objectives of the project include the application of the latest sequencing technologies for a genome-wide analysis of European F. magna populations, the investigation of spatio-temporal patterns of dissemination, the analysis of the genetic bases for drug resistance, and the development of concrete recommendations for combatting the parasite. This project has the potential to fundamentally change efforts of controlling the invasive giant liver fluke in Europe. The use of state-of-the-art genome sequencing techniques enables a better understanding of parasite biology, leading to more targeted and effective control strategies. This benefits not only wild animals but also farm animals and humans.

## Newly Approved Research Projects at a Glance

FUNDING AGENCY	PROJECT TITLE	PROJECT LEADER
Alpaca Research Foundation	Investigating alpaca dental disease aetiology: a comparative study using dental examination and CT imaging	Nora Biermann
Association for the Study of Animal Behaviour	Mobile eye tracking to study action comprehension in dogs	Andrea Sommese
Federal Ministry of Education and Research, Germany	Confirmatory study on effectiveness of a new, precise needle-free injection technology in a in vivo model of cell therapy for urinary incontinence	Andrea Buzanich-Ladinig
Federal Ministry of Agriculture, Forestry, Regions and Water Management	Reduction of stillbirth rate in cattle by development of an automatic system measuring fetal ECG	Thomas Wittek
Federal Ministry of Agriculture, Forestry, Regions and Water Management	Evaluation of the PRRS program of the animal health service for improving respiratory health in Austrian swine farms	Andrea Buzanich-Ladinig
Federal Ministry of Agriculture, Forestry, Regions and Water Management	Microbial contamination in animal drinking water systems – connection with weaning diarrhoea in pig farming	Evelyne Selberherr
Federal Ministry of Agriculture, Forestry, Regions and Water Management	Evaluation of spread and possibilities for containing the American giant liver fluke in red deer	Anna Kübber-Heiss
Federal Ministry of Agriculture, Forestry, Regions and Water Management	Development of the scientific basis for an Austrian fallen stock monitoring system	Johannes Baumgartner
EU (Commission of the European Union)	Building the practical and theoretical knowledge capacity to monitor, assess and mitigate the risks of vector borne diseases in Bangladesh	Hans-Peter Führer
EU (Commission of the European Union)	Environmental impact of anthelmintics in livestock and alternatives to minimize their use	Barbara Hinney
EU (Commission of the European Union)	TransformDairyNet: networking to transform European dairy systems	Susanne Waiblinger
EU (Commission of the European Union)	De-Caf Decoding local crosstalk in tumour formation	Florian Grebien

Note: This table presents an excerpt from those research projects that were granted funding in 2023. Owing to confidentiality provisions not all projects may be published.

FUNDING AGENCY	PROJECT TITLE	PROJECT LEADER
EU (Commission of the European Union)	INFRAPLUS	Maik Dahlhoff
EU (Commission of the European Union)	Reducing non-human primates in non-clinical assessment: the European Initiative on Minipig and Micropig Models	Kerstin Mair
EU (Commission of the European Union)	Preclinical in vitro models to replace, reduce and refine mouse models in preclinical studies	Maik Dahlhoff
European College of Veterinary Surgeons	Physiological volumes of frequently injected equine joints and intraarticularly achieved Triamcinolone concentrations	Daria Carolin Debald
European College of Veterinary Surgeons	Exploring hidden consequences of antimicrobial use and its implications for hospital infection control: antibiotic resistant bacteria in hospitalised horses and environmental contamination	Nora Biermann
European Society of Veterinary Dermatology	Iron metabolism in cats with atopic skin syndrome compared to healthy private owned cats	Franziska Roth-Walter
Fellinger Cancer Research – non-profit association to promote cancer research	Exploring the role of senescence in the malignant transformation of NK cells	Dagmar Gotthardt-Pötsch
Forster-Steinberg Foundation	Translational in vitro models for dermatological and gastroenterological research from pig tissue	Maik Dahlhoff
FWF - Austrian Science Fund	A glimpse into the forgotten time capsules of evolution: sequencing historical specimens to reconstruct the history of genomic invaders in arthropods.	Robert Kofler
FWF - Austrian Science Fund	Genetic diversity of Dirofilaria repens and D. immitis	Hans-Peter Führer
FWF - Austrian Science Fund	Food or foe: interaction of myxozoans with red blood cells	Astrid Holzer
FWF - Austrian Science Fund	Infants' and dogs' perception of causality and animacy: a systematic comparative investigation	Christoph Völter
FWF - Austrian Science Fund	Linking CDK6 to extracellular vesicles	Karoline Kollmann
FWF - Austrian Science Fund	Interrogation of the immune-microenvironment of T-cell malignancies	Heidi Neubauer-Sedy
FWF - Austrian Science Fund	The TM-LETM domain: core region for K+ and NAD+/H homeostasis	Karin Nowikovsky
FWF - Austrian Science Fund	The impact of linkage disequilibrium during polygenic adaptation	Christian Schlötterer
FWF - Austrian Science Fund	Cognitive-sensory biology of rainforest navigation in frogs	Andrius Pasukonis
FWF - Austrian Science Fund	Genetic diversity and origin of feral horses in New Zealand	Elmira Mohandesan
FWF - Austrian Science Fund	Dexterity in the object use of the Goffin's cockatoo	Alice Auersperg

FUNDING AGENCY	PROJECT TITLEV	PROJECT LEADER
FWF - Austrian Science Fund	In vitro modelling of BPV1 infection	Sabine Brandt
GFF - Research Promotion Agency of Lower Austria	From stress to strength: deciphering the mechanisms for maintaining uterus health and resilience in dairy cows under heat stress conditions	Karen Wagener
GKF - Registered Association Promoting Cynological Research	Assistants on four paws: biomechanical studies for the improvement of guide dog harnesses	Barbara Bockstahler
IAEA - International Atomic Energy Agency	Development of a gamma-irradiated vaccine against ocular Chlamydia suis infections in pigs	Tobias Käser
Climate and Energy Fund	The impact of climate change on arthropod vectors and selected parasites in Alpine pastures	Hans-Peter Führer
Municipal Department 15 of the City of Vienna, Health Service (MA 15)	Mosquito Monitoring Vienna – 2024	Hans-Peter Führer
Municipal Department 60 of the City of Vienna, Veterinary Services and Animal Welfare (MA 60)	Use of horses in the age of climate change	Jessika-Maximiliane Cavalleri
Austrian Academy of Sciences	A novel mechanism in host-microbiome crosstalk: small RNAs and mitochondria	Sara Ricci
Austrian Academy of Sciences	The invasion of Fascioloides magna in Europe: a model for host-parasite adaptation research	Susana Carolina Martins Ferreira
Austrian Academy of Sciences	Therapeutic potential of fetal MSC and fetal chondrocytes derived secretome on inflamed chondrocytes and synoviocytes in vitro	Maria Belen Arteaga Paredes
Austrian Academy of Sciences	Unravelling STAT5B-driven NK-cell leukaemia: mechanisms and therapeutic strategies	Angela Hiesinger
Austrian Academy of Sciences	Cell surface receptor hubs – a novel hallmark in cytokine signalling and cancer biology	Sebastian Kollmann
Austrian Academy of Sciences	PoMo-cod: integrating demography and selection in codon evolution	Ioanna Kotari
QGV - Austrian Quality Poultry Association	Whole genome sequencing of fowl pox viruses from actual outbreaks of fowl pox in Austrian layer farms	Jorge Miguel Matos
OeAD - Austrian Agency for International Mobility and Cooperation	Global changes and animal personalities changes: a potential new threat to biodiversity?	Valeria Marasco
OeAD - Austrian Agency for International Mobility and Cooperation	Effects of cricket protein lysate on mammary gland carcinoma: an in vitrostudy using human cell line	Samart Dorn-In
OeAD - Austrian Agency for International Mobility and Cooperation	Integrated monitoring of Saccostrea cucullata in coastal aquaculture sites in Thailand by histopathological and proteomic assessment of environmental stressors and disease incidence	Martin Glössmann

FUNDING AGENCY	PROJECT TITLE	PROJECT LEADER
OeAD - Austrian Agency for International Mobility and Cooperation	Identification of polyethylene-binding proteins/peptides and their applications for nano/micro plastic analysis	Ebrahim Razzazi-Fazeli
Sandgrueb Foundation	New biomarkers and therapeutic targets in equine melanomas	Jessika-Maximiliane Cavalleri
City of Vienna	Development of novel analytical research methods in wildlife toxicology	Alba Hykollari
City of Vienna	Evaluation of the health status of wildlife populations in the City of Vienna (2024–2025)	Anna Kübber-Heiss
City of Vienna	Ecosystem Forest (Part II): effects of forest management on the population ecology of edible dormice	Claudia Bieber
Brandenburg Stud Farm Foundation in Neustadt, Germany	Genetic fixation of behaviour and the stress response in horses	Christine Aurich
UK Research and Innovation	Agency, rationality and epistemic defeat - renewal	Zsófia Virányi
Registered Association Promoting Research in the Health Sector of Llamas and Alpacas	Study on feasibility of Brix refractometry for measurement immunoglobulin concentration in alpaca colostrum	Thomas Wittek
Registered Association Promoting Research in the Health Sector of Llamas and Alpacas	Emerging vector borne viral infections and their impact on camelid health	Claudia Schulz
WWTF - Vienna Science, Research and Technology	City-invading mosquitoes of medical importance: habitat preferences and molecular detection in Vienna	Hans-Peter Führer

Fund

### Vetmeduni on Social Media

Vetmeduni's social media channels serve as tools for the publication of most recent research results, calls for study, interesting facts for animal owners as well as useful information for future or current students. The platforms Facebook, Instagram and X (previously Twitter) and YouTube are used for a direct, uncomplicated exchange 24/7 with interested followers. With the help of infographics, videos or livestreaming of discussion rounds with the university's experts, Vetmeduni intends to make science communication as understandable and exciting as possible for a broad target group.

facebook.com/ vetmeduni.vienna

instagram.com/ vetmedunivienna

x.com/ vetmedunivienna youtube.com/ vetmedunivienna

linkedin.com/ school/vetmeduni



# The VETMED Magazine for Perusal

The university's own VETMED Magazine reports on the latest scientific findings, current research projects, campus news as well as on cases from the university's clinical practice. It is sent to more than 4,000 subscribers at home and abroad three times a year. It also reaches Vetmeduni staff and students, members of the Society of Friends of the University of Veterinary Medicine Vienna, veterinarians, animal lovers and owners, journalists and other stakeholders of the university. Topics such as Third Mission, studying at Vetmeduni, sustainability and One Health were the focus of 2024 editions.



All editions are available online at: https://www.vetmeduni.ac.at/universitaet/ infoservice/vetmed-das-magazin











### **Events**

 One Health Seminar for the European Region at Vetmeduni

From 11 to 13 June 2024, representatives and experts from the World Organisation for Animal Health (WOAH), the World Health Organisation (WHO), the Food and Agriculture Organisation of the United Nations (FAO) and the United Nation's Environment Programme (UNEP) met at the University of Veterinary Medicine, Vienna. The seminar revolved around working on a joint One Health action plan and its implementation.

### · Long Night of Research

Experiencing the world of science up close, exchanging ideas with researchers and discovering what otherwise often remains hidden – during the Long Night of Research on 24 May 2024, experts of Vetmeduni once again brought current scientific projects to the fore and offered a varied programme with hands-on activities, guided tours and exhibitions. Highlights included the stands in Vienna's city centre, the guided tours of the Vetmeduni campus in Floridsdorf and the stands at the Institute of Science and Technology Austria (ISTA).

#### · Children's Universities

Researching, experimenting, asking questions and lots of laughs – during the summer holidays, the University of Veterinary Medicine, Vienna, once again offered a varied and colourful programme for inquisitive children. Vetmeduni was the only university in Austria to be present in three 2024 Children's Universities. The Vetmeduni programmes at the KinderuniWien, KinderUniGraz and Junge Uni Innsbruck created points of contact with science and research.

- Networking Meeting: Federal State Meets Vienna
  Learning about career opportunities, making contacts and
  exchanging ideas as part of its VetmedRegio regionalisation initiative, Vetmeduni organised three networking meetings at the Vienna Floridsdorf campus in 2024. Students
  from Styria, Upper Austria and Tyrol as well as representatives of the veterinary profession from the respective
  federal states were invited. During speed dating sessions,
  students had the opportunity to ask questions in a relaxed
  atmosphere about career prospects, everyday working life
  and challenges for veterinarians in these federal states.
- Inaugural lectures in autumn 2024

Four new professors from the Department of Biological Sciences and Pathobiology celebrated their debut with inaugural lectures at Vetmeduni's lecture hall complex in November 2024, demonstrating the expertise they have to enrich the university.

### AACTING 2024 at Vetmeduni

The 4<sup>th</sup> International Conference on the Quantification, Benchmarking and Stewardship of Veterinary Antimicrobial Usage took place at Vetmeduni Vienna in early February 2024. The conference is a major meeting place to exchange ideas and network with researchers addressing issues relating to the quantification of antimicrobial use and strategies for its reduction. AACTING 2024 was sponsored by the Austrian Federal Ministry of Social Affairs, Health, Care and Consumer Protection (BMSGPK) and the University of Veterinary Medicine, Vienna.



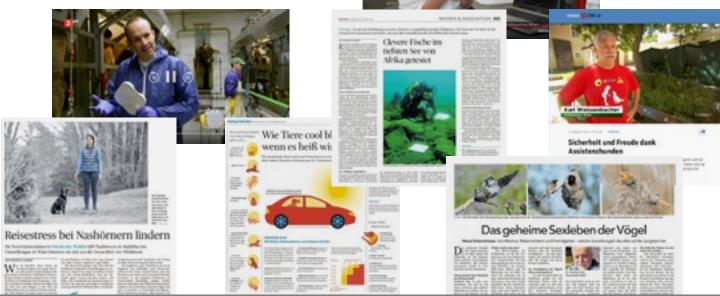
## Science Communication and Public Relations

Fostering a keen and critical eye on research and enhancing understanding for the methods and perspectives of researchers is the goal of science communication. From press releases and press conferences, appropriately edited scientific contents for online media to the university's own magazine and social media channels: Vetmeduni Vienna relies on proactive science communication throughout the year. In this way, the university provides a look behind the scenes of teaching, research and hospital work.

Press releases, together with numerous media inquiries addressed directly to the Public Relations and Communication Unit or the university's experts, resulted in roughly 750 reports on a great variety of topics in national and international media (for instance: Die Presse, Kurier, Der Standard, APA-Science, Science.ORF.at, Die Zeit). Media monitoring recorded an average of 33 million contacts per month achieved with miscellaneous press releases in 2024.

# Vetmeduni in the Media





### **PUBLIC RELATIONS 2024**



PRESS RELEASES, MEDIA INQUIRIES



GUIDED TOURS



VETMED MAGAZINE
 (3 × PER YEAR)



NEWS ON WEBSITE



INFORMATION FOLDER









SOCIAL MEDIA

Unflappable, committed and innovative: The University of Veterinary Medicine, Vienna, stands for responsible action to ensure the health of humans, animals and the environment.



34 Animal Hospital Vetmeduni 2024



Barbara Bockstahler Vice-Rector for Teaching, Teaching Innovation and Clinical Matters



Jessika-Maximiliane Cavalleri Head of the Clinical Department for Small Animals and Horses



Andrea Buzanich-Ladinig Head of the Clinical Department for Farm Animals and Food System Science

First and foremost, I would like to thank my predecessor Jürgen Rehage for his dedication and commitment to teaching. In autumn 2024 and with great flair, he started preparations for the upcoming 2026 EAEVE reaccreditation, and I am confident that we will master this challenge together. As every year, a special focus in the reporting year was on quality assurance policies in teaching and lifelong learning. The implementation of the new extension programme Initial Consultation and Care of the Small Animal Patient is yet another step to take us forward. Together with my colleagues and with an eye to the future, we will continue to develop and strengthen the diverse range of study programmes at Vetmeduni as well as our clinical work. We will do so as a team which is always looking ahead.

In 2024, numerous innovations moved centre-stage. Ivana Calice and Nora Biermann received qualification agreements as part of an assistant professorship. Two employees received ECVDI and one each the ECAR, ECEIM and ECVAA diplomas. Since February, the new teaching clinic LiKE in the Central Emergency Clinic has enabled students to gain more practical experience under supervision, while offering cost-reduced treatments for socially disadvantaged animal owners. The extension programme Initial Consultation and Care of the Small Animal Patient was successfully implemented. Commissioning of a 3 Tesla MRT strengthens teaching and research. New projects were initiated, including alternative methods for animal experiments and the impact of climate change on urban horse use.

In 2024, the professorship for Veterinary Public Health was filled by Clair Firth and the assistant professorship for Sustainable Plant Metabolite Animal Interactions by Barbara Metzler-Zebeli. For the Centre for Veterinary Systems Transformation and Sustainability, one professorship each for Herd Health Management with a focus on digital health monitoring in farm animals and for One Health Systems Science will be filled. Qualification agreements have been concluded with Moritz Bünger (Porcine Health Management) and Gema Alama Bermejo (Fish Health). Evelyne Selberherr is the third associate professor in our department to have successfully completed her qualification agreement. I wish to thank all employees for their good cooperation during the pilot year of implementing the vetmeduni+ process and look forward to working with them in the future.

35 Animal Hospital Vetmeduni 2024

### ANIMAL HOSPITAL



FISH, PIG AND POULTRY



**HORSES** 



SMALL ANIMALS

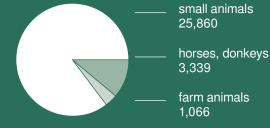


RUMINANTS AND CAMELIDS

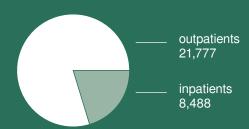
### PATIENT VISITS 2024

TOTAL: 30,265

## PATIENT VISITS AT THE UNIVERSITY CLINICS



## CARE GIVEN TO ANIMAL PATIENTS



Figures exclude poultry and visits for the purpose of herd health management (livestock).

The University Clinical Centre for Population Medicine in Fish, Pig and Poultry managed a total of 26.093 patients and samples in 2024.

**RESIDENTS** 

32

Number of Residents who were in training in 2024 and quality-assured by the Residency Advisory Board. DIPLOMATES

70

Number of Diplomates as at 31 Dec 2024.

Residency programmes are veterinary medical study programmes with an international character that offer intensive specialisation in a clinical specialty field. Graduates of this three- to four-year training programme are called Diplomates.

# Training Programmes 'Residency'



### ANAESTHESIOLOGY ECVAA

European College of Veterinary Anaesthesia and Analgesia



#### OPHTHALMOLOGY ECVO

European College of Veterinary Ophthalmology



## DIAGNOSTIC IMAGING ECVDI

European College of Veterinary Diagnostic Imaging, Small Animal Track



## SURGERY, LARGE ANIMALS ECVS

European College of Veterinary Surgery, Large Animal Surgery



## SURGERY, SMALL ANIMALS ECVS

European College of Veterinary Surgery, Small Animal Surgery



### DERMATOLOGIE ECVD

European College of Veterinary Dermatology



### FISH MEDICINE

European College of Aquatic Animal Health



### POULTRY VETERINARY MEDICINE ECPVS

European College of Poultry Veterinary Science



### VETERINARY INTERNAL MEDICINE, COMPANION ANIMALS ECVIM-CA

European College of Veterinary Internal Medicine, Companion Animals



### INTERNAL MEDICINE, COMPANION ANIMALS, ONCOLOGY ECVIM-CA, ONCOLOGY

European College of Veterinary Internal Medicine, Companion Animals - Oncology



### INTERNAL MEDICINE, HORSES ECEIM

European College of Equine Internal Medicine



## REPRODUCTIVE MEDICINE ECAR

European College of Animal Reproduction



## BOVINE MEDICINE ECBHM

European College of Bovine Health Management



## PORCINE MEDICINE ECPHM

European College of Porcine Health Management



## SPORTS MEDICINE ECVSMR

European College of Veterinary Sports Medicine and Rehabilitation, Small Animal Track



### VETERINARY MICROBIOLOGY

European College for Veterinary Microbiology ECVM



### VETERINARY PARASITOLOGY EVPC

European Veterinary Parasitology College



### VETERINARY PATHOLOGY ECVP

European College of Veterinary Pathologists

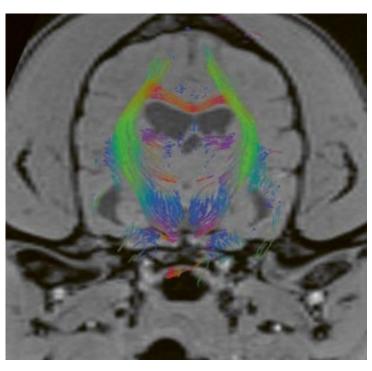


38 Animal Hospital Vetmeduni 2024

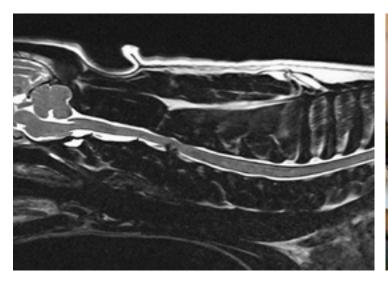
### 3 Tesla Magnetic Resonance Imaging – High Tech for Sick Animals

Clinicians at Vetmeduni's Clinical Department for Small Animals and Horses have been working with 3 Tesla magnetic resonance imaging (MRI) since autumn 2024. Tesla is the unit of measurement for magnetic flux density, which is required for magnetic resonance imaging procedures. In veterinary imaging, a 3 Tesla MRI offers greater practical relevance than a 1.5 Tesla system, as it provides much better image resolution and/or higher signal-to-noise ratio. This allows for more precise imaging of fine neuroanatomical structures in brain tumours, herniated discs or nerve disorders.

Even small intraosseous lesions, joint pathologies or soft tissue changes, for example in tendon and ligament diagnostics of the horse's hoof, can be more reliably identified and differentiated with 3T, thus significantly improving clinical decision-making. In larger animals, such as horses, the images achieve a level of detail of histological images with tenfold magnification.



Fibre tracking: the colour-coded representation of the direction of movement of fluid - 'fibre tracking' - enables documentation of the orientation of nerve fibres in dogs.



MR image of a French bulldog with a slipped disc in the cervical spine.



MR examination of a four-year-old, lame warmblood mare weighing around 500 kilograms. For examining the hoof and pastern joint, the right foreleg was placed in the centre of the MR tunnel. The rest of the patient lies on a specially made MR-compatible examination table, which moves on air cushions.



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T + 43 1 25077-0 communication@vetmeduni.ac.at Veterinärplatz 1, 1210 Vienna

www.vetmeduni.ac.at

Responsible for the content Rectorate of the University of Veterinary Medicine, Vienna

Project Manager and Editor Nina Grötschl

Editorial Staff Alexandra Eder, Thomas Zauner, Christine Schwab-Schusser, Doris Sallaberger, Sara Stroj, Ingrid Trebo

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