

# Annual Report 2022



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# Statements



## Martin Polaschek

### Federal Minister for Education, Science and Research

The Messerli Research Institute has been researching behavioural aspects of the human-animal relationship for twelve years now and deals with topics that are not only scientifically interesting but also have a special social relevance. The institute has an impact on society in the fields of behavioural and cognitive biology, comparative medicine and neuroscience, as well as with research questions from various other areas. It faces the challenges of the present and works on solutions for the future. To this end, Vetmeduni, the University of Vienna and the Medical University of Vienna expertly work together to achieve innovative and successful collaborations. I would like to thank all those who work at this outstanding institution for their commitment and wish them all the best for the future!



## Heinz Schweizer

### Honorary President Messerli Foundation

The Messerli Foundation, which built up and initiated the Messerli Research Institute together with the three Viennese universities, is proud of what it has achieved. For ten years now, interested parties have been able to conduct science-based research into the human-animal relationship and all its aspects at the Institute, and to publicise knowledge gained for the benefit of animals. The 2022 report once again demonstrates the high level of this interdisciplinary work. This is unique in Europe. The Messerli Foundation would like to thank all those who have contributed to this success.



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## Petra Winter

### Rector of the University of Veterinary Medicine Vienna

With 2022, the Messerli Research Institute has entered its second decade. In all areas, the scientists have driven their research forward with great commitment and brought to light new findings on animal behaviour, the understanding of allergies, and fundamental ethical questions. In order to find answers to complex questions, interdisciplinary research and teaching are rising in importance and enriching the Vetmeduni and all partner institutions. To promote young scientists and strengthen interdisciplinary debate, tenure track career options are also being prepared at the MFI in the future.

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## Sebastian Schütze

### Rector of the University of Vienna

Since October 2022, Manuela Baccarini, Vice Rector for Research and Promotion of Young Academics, and I have been responsible for cooperation with the Messerli Research Institute on behalf of the University of Vienna. I am very much looking forward to this task, because we can build on an already very long and successful cooperation between the research groups of our two universities. One of the strategic focal points of the university in the future will be the topic of "Global Health". In this interdisciplinary focus, research and teaching on all dimensions of health, from humans to the planet, are to be bundled and strengthened in the future. I am convinced that the activities within the framework of the Messerli Research Institute will make a significant contribution to this.

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## Michaela Fritz

### Vice Rector for Research and Innovation of the Medical University of Vienna

The Messerli Research Institute can be proud of its achievements – also in international comparison. The human-animal relationship, which is the focus of the institute's research, is influenced by numerous environmental factors and social conditions. The complexity of these interrelationships can only be researched on an interdisciplinary basis and with long-term cooperation – which is precisely what the Messerli Research Institute and its university partners provide the ideal environment for. The next few years will be decisive in positioning the Institute at the forefront of international research with forward-looking appointments.



# Editorial

## Ludwig Huber

Head of Messerli Research Institute

After celebrating the tenth anniversary of our Institute in 2021, the time is ripe to look to the future. For the question of how the Institute should develop further in terms of content, possibly by expanding with new thematic fields, it is also important to ask how the Institute should position itself on an international scale. Since its beginnings about 50 years ago, the academic study of human-animal relations has increased exponentially<sup>1</sup>.

Shortly before the end of the year, an article was published with an overview of established academic centres and institutes dealing with human-animal relations across the world<sup>2</sup>. Out of a total of 28 centres, 21 participated in a survey on research, teaching, engagement and practice. Most (14) centres are located in the USA, and only four are in Europe. In addition to one centre in Hungary, the UK and the Netherlands, our Institute was also listed. Interesting differences emerged that make our Institute stand out.

The great interdisciplinary breadth of the Messerli Research Institute is already unique. In 90 per cent of these centres, research on human-animal relationships is primarily focused on humans; in only seven centres is research conducted on animal cognition. Ethics or comparative medicine are not even mentioned. Thus, no other centre combines (behavioural) biology with comparative medicine and philosophy/ethics.



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We also stand out in terms of teaching. Only about half of the centres that deal with human-animal relations offer degree programmes, eight of them with a doctorate (or PhD) and ten with a Master's degree (or diploma). Only at the Messerli Research Institute is it possible to complete a Bachelor's degree in addition to a university course (applied cynology) in addition.

The article contains a noteworthy piece of advice: "As this is a highly interdisciplinary field, the presence of academic centres is crucial for facilitating collaboration between university departments<sup>3</sup>." This is the path we are taking at the Messerli Research Institute.

<sup>1</sup> McCune et al. (2020). *Frontiers in Veterinary Science* 7: 44.

<sup>2</sup> Nieforth et al. (2022). *Human-Animal Interactions*. 19. 12. 2022

<sup>3</sup> Mallon, W. T. (2006). *Academic Medicine*, 81(6): 502-512.

# The Messerli Research Institute at a glance

The Messerli Research Institute (MRI) was founded in 2010 with the support of the Messerli Foundation (Sörenberg, Switzerland) and under the auspices of the University of Veterinary Medicine Vienna in cooperation with the Medical University of Vienna and the University of Vienna. In autumn 2011, the professors of the three units (Comparative Cognitive Research, Comparative Medicine, Ethics and Human-Animal Studies) were appointed. In March 2012, the Institute was finally officially opened. The work of the Messerli Research Institute is based on four cornerstones:

## Research

The Messerli Research Institute is dedicated to research into the human-animal relationship and its foundations in the fields of animal cognition and behaviour, comparative medicine and ethics of the human-animal studies.

## Teaching

The research results form an integral part of the academic teaching in a Master's programme and should also contribute to providing guidance for the responsible treatment of animals.

## Interdisciplinarity

A broad interdisciplinary approach (biology, human medicine, veterinary medicine, philosophy, psychology, law) and a strong international orientation characterise the Institute.

## Knowledge transfer

A cornerstone of the Messerli Research Institute is to make science-based findings known to the public. In this way, the Institute also takes on the social mission of supporting people in their responsibility towards animals on a scientific basis.



# The organisational chart

The Messerli Research Institute consists of three units, each with a full professorship. Two of these are double appointments linking the Vetmeduni with the Medical University of Vienna, and one professorship with the University of Vienna. Since 2022, there has also been an associate professor in comparative cognition research.

Since 2019, the Messerli Research Institute has been combined with the Konrad Lorenz Institute for Comparative Behavioural Research and the Research Institute of Wildlife Ecology in the Department of Interdisciplinary Life Sciences at the Vetmeduni. Analogous to these institutes, the Messerli spokesperson function was converted into a management function. In accor-

dance with the procedural rules of procedure of the Messerli Research Institute, the leadership rotates between the Messerli professors every three years.

The Messerli Research Institute is responsible for the testing centre for “Assistance and Therapy Dogs” and the coordination centre for “Animal Welfare Qualified Dog Trainers”. Important partners include the Institute for Animal Welfare Science and Husbandry and the Domestication Lab, with which the Institute cooperates as part of the interdisciplinary Master’s programme on human-animal relationships. In addition, the Messerli Research Institute is associated with other centres in cooperation with the two partner universities.





## The team

Each of the three units of the Messerli Research Institute is assigned a chair, scientific assistants, an administrative position and – in the case of the two natural science units – technical positions. One IT position and two administrative positions are employed across units for institute matters. At the Medical University of Vienna, there is a secretary for Comparative Medicine and an IT position for Comparative Cognitive Research.

In 2022, the Institute had 40.8 full-time equivalents, of which 20.8 were permanent and 20.0 were financed by third-party funds. There are other scientists working at the associated centres who are not included here.



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# The Foundation Board

Photos: © Messerli Foundation



**Adrian von Segesser,  
President of the Messerli  
Foundation**



**Heinz Schweizer,  
Honorary President of the  
Messerli Foundation**



**Rudolf Aebersold**



**Dominique Ammann**



**Felix Howald**



**Ariane Schweizer Henniges**

The members of the Foundation Board of the Messerli Foundation have accompanied the Messerli Research Institute with great commitment and goodwill since its foundation. Thankfully, the prosperity of the Institute has become a personal concern for them.

# The Scientific Advisory Board



© Sandøe

**Peter Sandøe**  
(University of Copenhagen, Denmark),  
Chair of the Scientific Advisory Board



© ETH Zürich

**Sabine Werner**  
(Swiss Federal Institute of Technology  
Zurich, Switzerland)\*



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**Josep Call**  
(University of St. Andrews, Great Britain)



© University of Zurich

**Thomas Kündig**  
(University of Zurich, Switzerland)

The Scientific Advisory Board of the Messerli Research Institute is the external advisory body for ensuring the scientific quality, timeliness and content-focus of research at the Institute. The strategic orientation of research, as well as the Institute's international position and connections, are at the forefront of their range of responsibilities.

\* Sabine Werner is also a member of the scientific advisory board of the Messerli Foundation.



# Research

Current questions of the human-animal relationship and its foundations from a biological, medical and ethical perspective are the focus of research. The aim is to develop scientifically sound findings for the coexistence of humans and animals and to make them available to the community.

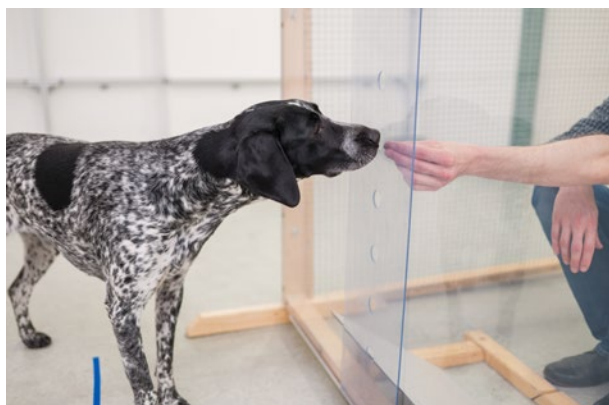
## Research in context

The Messerli Research Institute works at the interface of three Viennese universities: the University of Veterinary Medicine Vienna, the Medical University of Vienna and the University of Vienna. Its staff strive to integrate the expertise available at these universities into their work and, conversely, to make their results available for teaching and research at the three universities.



## Interdisciplinary research

Interdisciplinarity and a high degree of specialisation give the Messerli Research Institute its distinctive profile. Each of the three units at the Messerli Research Institute work on their own specialised research topics, particularly within the framework of a number of competitively acquired projects, but also cooperate in interdisciplinary research projects between the units as well as externally. Interdisciplinary research cooperations within the Institute, the Vetmeduni, the Viennese universities and with international partners are described in this annual report using selected examples on page 20 and 21.



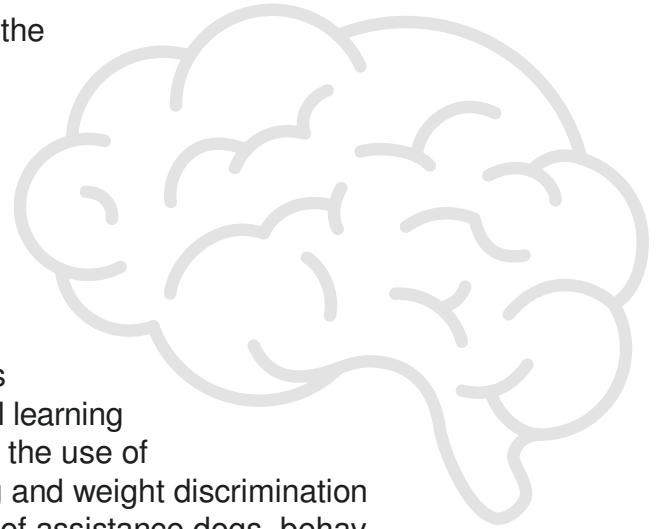
Photos: © Thomas Suchanek/Vetmeduni





## Comparative Cognitive (CC)

The unit's research has two main goals: on the one hand, to deepen knowledge about the behaviour, thinking and feeling of animals themselves, and on the other hand, about the cognitive, emotional and social foundations of relationships with humans. In addition to the studies described in the two highlights below, staff members of Comparative Cognition have researched, among other things, the imitation of humans and the perception of puppies in dogs, social learning and strategic foraging in domestic pigs, and the use of compound tools, innovative problem solving and weight discrimination in Goffin's cockatoos. Especially in the field of assistance dogs, behavioural medicine and species conservation, the department's research contributes to improving the relationship between humans and animals.



### Team

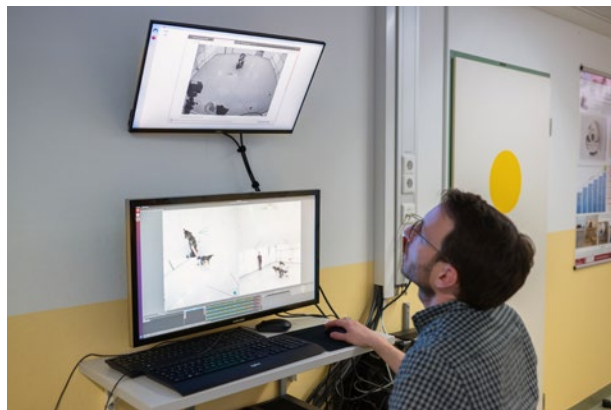


## Research Projects Highlights

### State-of-the-art tracking and imaging technology in the Clever Dog Lab

The application of state-of-the-art tracking (e.g. eye tracking, 3D body tracking) and imaging (fMRI) technologies was a focus of research in the Clever Dog Lab (CDL) in 2022. The technological innovations provided new insights into how dogs process information. For example, to gain new insights into dogs' expectations of their physical environment, Christoph Völter created realistic computer animations of moving objects that either behaved or did not behave in accordance with the laws of physics. Using eye-tracking technology, these studies showed that dogs have expectations with respect to certain physical laws (e.g. contact causality, occlusion) but not others (gravity). CDL researchers have published two comprehensive reviews to improve data quality in canine eye-tracking. A 3D machine learning-based body tracking study provided objective measures of dogs' behavioural responses when faced with a stranger who was either willing but unable to give the dogs a treat or not. These studies highlight

the transformative potential of tracking technology for the study of canine cognition. The latest addition to the technological toolkit at the CDL, mobile eye-tracking, will allow gaze tracking to be conducted during unconstrained behaviour.



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Christoph Völter at the 3D tracking terminal.



© Thomas Suchanek/Vetmeduni

Dog trainer Laura Laussegger adjusting the eye tracker for Jimi the dog.



### Imitation, weight and curiosity in kea

The Kea Lab has established itself as one of the world's leading facilities for cognition research on parrots. In 2022, three new birds joined the flock, securing future research with this endangered species. Research focused on the three ongoing FWF projects, led by Raoul Schwing (imitation) and Megan Lambert (weight, curiosity). The work in the imitation project indicated clear effects of social learning in the kea, but the animals did not produce an exact copy of the demonstrated actions for this purpose.

Studies in the weight project showed that kea are able to choose objects based on their weight. It also showed that they have difficulty remembering the weights of objects they have previously interacted with and estimating weight based on causality considerations (e.g. how objects are moved by airflow). In the curiosity project, an ongoing study is investigating whether Kea can ask “why” questions, such as why a feeding machine suddenly stops working, which was previously seen

as a specifically human ability. The project has been expanded to include the Falkland's caracara, a falcon from the Falkland Islands that shows remarkable similarities to the kea. In field studies, these birds showed little fear of novelty, high exploration and flexible innovation in a novel feeding box.



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Pick, an adult male Kea, opens the food box after a demonstration by a conspecific.



© Katie Harrington/Vetmeduni

A Falkland caracara independently solves the problem of opening a food box in the Falkland Islands.



## Comparative Medicine (CM)

“Cautiously back to normal” was the motto in Comparative Medicine 2022, the only medical Messerli unit consistently comparing human, animal and plant immune mechanisms under the influence of changing environmental conditions. While virtual and hybrid events had proved their worth in the pandemic, the 2022 team increasingly enjoyed “real meetings,” and “real congresses”, with “real” personal contacts and networking.

Thus, the Comparative Medicine team was often on the road with congress contributions and with presentations in order to really communicate the research results. Highlights were the Annual Congress of the EAACI in Prague, as well as the Joint Meeting of the Austrian Society of Allergology and Immunology with the German Immunology in Hanover, or the Global Allergy Forum (GAF) in Davos – the team was always involved in the organisation as well as with active contributions.



### Team





## Research Projects Highlights

### Identification of the farm protective factor against allergies

For several years, the Comparative Medicine team's research on the human-animal relationship has focused on one particular animal, the cow. Indeed, keeping cattle has been linked to the well-known "farm protective effect" against allergies, asthma and atopic sensitisation. It is known that breathing farm air and drinking uncooked raw milk play a role in this, but the identification of the responsible factor has not yet been clearly established.

In her research, Isabella Pali succeeded in identifying a protein as a protective factor for the first time. It is beta-lactoglobulin, which was previously known exclusively as a whey protein, and could thus explain the protection provided from drinking raw milk. In cooperation with the Vienna University of Technology, Isabella Pali and her team were able to identify precisely this protein, beta-lactoglobulin, in aerosols collected from the dusty barn environment up to 300 metres. But how does the whey protein get into the barn dust? By the cattle also secreting it through their urine. This work was published in *Clinical Translational Allergy* and explains for the first time exactly which factor from cattle yards protects against allergies.

© Erika Jensen-Jarolim/Vetmeduni



Emma the cow also protects against allergies.

### Farm protection that you can suck on

Franziska Roth-Walter has been interested in a special protein family with a "pocket", the lipocalins, for years. She was able to prove that loading these pockets with micronutrients fundamentally changes the immune properties of lipocalins. She exploited this to put the farmyard protective factor, beta-lactoglobulin, combined with micronutrients, into a lozenge. Building on previous in vitro and in vivo studies in mice, Franziska Roth-Walter led a double-blind placebo-controlled study in which human patients with allergies were supplemented with the lozenge. The effect exceeded all expectations, as not only did the micronutrient status of the patients with allergies improve, but the burden of allergic symptom burden was also significantly reduced. The work was published in the prestigious *Journal of Allergy and Clinical Immunology in Practice*. The fact that the farm protection conferred lasted for a further seven to eight months after the end of supplementation and was completely allergen-unspecific was proven in another study on those who suffer from house dust mite allergy.



© Erika Jensen-Jarolim/Vetmeduni

There is now hope from the cowshed, and not only for pollen allergy sufferers.



## Ethics and Human-Animal Studies (EHAS)

The Unit of Ethics and Human-Animal Studies works on basic and applied questions about the responsible treatment of animals. It focuses on practical issues such as veterinary medicine, animal husbandry and animal experiments as well as fundamental philosophical reflections, for example on the ethical relevance of the cognitive relationship between humans and animals.

Our research explores the limits of established theories and strives to develop new concepts to provide guidance on current issues in the human-animal relationship. Among other things, 2022 was marked by the launch of the “Abschied Leben” (in English: “Farewell Life”) project, which addresses the moral challenges of veterinary medicine in the context of hospice and palliative care.



### Team



© Herwig Grimm/Vetmeduni

## Research Projects Highlights

### **Farewell Life: Hospice and palliative care for animals**

In July 2022, the project “Farewell Life. Hospice and palliative care in small animal medicine”. In this project, funded by the Gut Aiderbichl Foundation, Svenja Springer and Christian Dürmberger address questions that have not been the focus of discourse on pet care to date: It is not only us humans who are getting older - our pets are too. Modern small animal practice enables a level of patient care that is hardly inferior to human medicine. Moreover, pets are increasingly regarded as members of the family. Against this background, questions need to be asked that directly follow on from an earlier project around the discussion of the quality of life of chronically ill and old horses: What moral challenges do veterinarians face in hospice and palliative care? How do they deal with the possible shift from a primarily “healing” to a “caring” veterinary medicine in this context? And to what extent does this change affect their normative self-image?

To answer these and other questions, the project is conducting a qualitative interview study that will serve as the basis for a subsequent reflection on veterinarians’ moral attitudes towards end-of-life care, euthanasia and the natural death of their patients.



© Svenja Springer/Vetmeduni

Farewell Life

### **Swiss National Research Programme: Advancing 3Rs**

Ethical reflection on animal experimentation has been an essential task of the Ethics Unit of the Messerli Research Institute since its foundation. Herwig Grimm was nominated and elected chairman of the steering group of the Swiss National Research Programme “Advancing 3Rs – Animals, Research and Society” (NRP 79).

The programme has set itself two overarching goals: firstly, to effectively advance research and implementation of the “3R” principle (replace, reduce, refine). In the humanities and social sciences dimension, the programme conducts research on ethical, legal, social, historical, cultural and economic aspects of the use of animals in science in a changing human-animal relationship.

The research phase of the programme, which has run over eight years and has a budget of 20 million Swiss francs, began in May 2022. Meanwhile, scientists are working on 23 research projects in the areas of innovation, implementation and ethics and society. In order to cover the ethical and sociological issues sufficiently, a second call for proposals was issued in these areas in 2022.



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Kick-off of the National Research Programme 79 “Advancing 3Rs – Animals, Research and Society” in Bern.



# Interdisciplinary research

Despite an ever-increasing degree of necessary specialisation in a wide range of research areas, the Messerli Research Institute also strives to maintain a recognisable degree of interdisciplinarity. Staff members from the Institute's three units (Comparative Cognitive, CC; Comparative Medicine, CM; Ethics and Human-Animal Studies, EHAS) work together not only in joint teaching but also in various collaborative projects. These are described below as examples, together with the inter-institute and inter-university research projects.

## Cooperation projects within the Messerli Research Institute

### The concept of death in Goffin's cockatoos

*Susana Monsó (EHAS); Shereen Chang (EHAS), Eleonora Rovengo (CC), Antonio Osuna-Mascaro (CC), Alice Auersperg (CC)*

This project uses two studies with different approaches to investigate whether Goffin's cockatoos can develop an understanding of irreversible non-functionality.

Funding: FWF

### Ethical and epistemological challenges of cognitive-biological comparisons

*Judith Benz-Schwarzburg (EHAS); Zsófia Virányi (CC); Francesco Tonci Ottieri Della Ciaja and Marin Georgiev (students of the University of Vienna)*

Two interrelated, interdisciplinary Master's projects on the ethical and epistemological challenges of cognitive biology comparisons of human and non-human animals will be developed.

## Cooperation projects within the Vetmeduni

### Cooperation and welfare in Kune Kune pigs

*Marianne Wondrak, Ariane Veit & Ludwig Huber (all CC), Janja Sirovnik & Jean-Loup Rault (Institute for Animal Welfare Science and Husbandry)*

Problem solving through group cooperation is an important element of social animal welfare. Here we investigate whether Kune Kune pigs can learn to solve a mechanical problem together.

### Working Group "Ethics in the Equine Clinic"

*Herwig Grimm, Svenja Springer, Mariessa Long (all EHAS); Ulrike Auer (University Hospital for Small Animals); Florian Jenner, Sonja Berger, Karsten Velde, Rhea Haralambus, Iris Ribitsch (University Hospital for Horses)*

The working group deals with ethical questions that arise at the University Clinic for Horses in an interdisciplinary way. Currently, it is the question of the ethical justification of euthanasia of chronically ill or old horses.

### Optimisation of molecular allergy diagnosis in dogs

*Isabella Pali (CM) & Nina Polakova, Lucia Panakova (University Hospital for small animals).*

Within the framework of this project, relevant allergens and allergen sources for the dog, as well as an improvement of molecular allergy diagnostics, are to be developed. Funding: European Society of Veterinary Dermatology ESDV.



Modern small animal medicine.



## Cooperation projects with other Viennese universities

### The evolution of the social brain

Ludwig Huber (CC), Claus Lamm (Faculty of Psychology, University of Vienna), Christian Windsichberger (Medical University of Vienna)

This project uses magnetic resonance imaging, gaze tracking and behavioural tests to investigate the similarities and differences in socio-cognitive behaviour between humans and dogs. Funding: WWTF

### IBeSt – Innovations for the benefit of animals and humans

Christian Dürnberger (EHAS); Birgit Heidinger (Department of Animal Husbandry Systems, Technology & Emissions, HBLFA Raumberg-Gumpenstein); Christine Leeb (Institute of Farm Animal Science, BOKU); Ika Darnhofer (Institute of Agricultural and Forest Economics, BOKU); Leopold Kirner (University of Agricultural and Environmental Education); Michael Klaffenböck (VÖS); Thomas Reisecker (Young Finishers)

Possibilities for adapting existing pig houses are explored with the aim of increasing animal welfare and discussing the environmental impact, while keeping an eye on the effects on labour input and profitability.

### Alternaria under nutrient-poor conditions

Franziska Roth-Walter (CM) & Markus Gorfer (Austrian Institute of Technology)

In this project, Alternaria is grown under different conditions to investigate its effect on allergen expression. Project funding: Danube Allergy Research Cluster, Karl-Landsteiner University.

## International cooperation projects

### Action, Rationality and Epistemic Defeat

Zsófia Virányi & Ludwig Huber (CC), Giacomo Melis & Eva Rafetseder (Philosophy and Developmental Psychology, University of Stirling, UK)

The project aims to characterise epistemic action and rationality in infants and non-human animals (dogs, pigs) in order to compare them with adults and idealised rational agents. Funding: UK Research & Innovation

### Animal welfare for pets

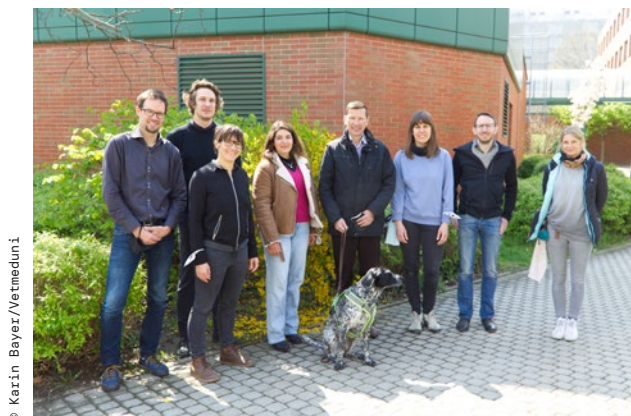
Svenja Springer (EHAS), Peter Sandøe, Thomas Bøker Lund (both University of Copenhagen), Sandra Corr (University of Glasgow)

Within the framework of a transnational study funded by the Centre for Companion Animal Welfare (Copenhagen), the focus of empirical investigations is on the expectations of animal owners with regard to contemporary small animal medicine.

### One Health in Allergology: Comparing weaning conditions of cattle with beta-lactoglobulin and binding partners in milk

Isabella Pali (CM) & Rupert Palme (Vetmeduni) & Kerstin Barth (Federal Research Institute for Rural Areas, Forestry and Fisheries, Westerau, D) & Stephan Hann (BOKU, Vienna)

This project investigates whether cow-calf contact and weaning conditions influence the protein profile or the concentration of stress hormones in raw milk. Funding: Vetmeduni



© Karin Bayez/Vetmeduni

Visit of representatives of the WWTF to the Clever Dog Lab to get news about the WWTF-funded project "The Evolution of the Social Brain".





# Examination and Coordination Centre

## Assistance and therapy dogs

The Examination Centre at the Messerli Research Institute for the implementation of § 39a of the Federal Disability Act is unique on an international level. Particularly noteworthy is the lead work in the European standardisation organisation CEN to create a uniform standard in the field of assistance dogs. The working group “Lifelong well-being of assistance dogs” successfully continued the work in the reporting year, finalised the draft standard and raised it to the next level. In the national standards institute Austrian Standards International, Karl Weissenbacher, Head of the Examination and Coordination Centre, was confirmed as Chairman of Committee 196 (Technical Aids for People with Disabilities).

In the scientific field, a diploma thesis on the influence of two types of guide harnesses on the ground reactions and stride length of guide dogs for the blind was completed and published, and a Master's thesis on the influence on the quality of life of persons with post-traumatic stress disorder and the salivary cortisol level of the assistance dog was completed.

In 2022, 990 therapy assistance dog teams were tested in 145 testing sessions. For assistance dogs, 75 team tests and 28 quality tests were conducted. Overall, this corresponds to an increase of 15 percent compared to 2021.

In May 2022, an external evaluation of the Testing and Coordination Centre was carried out by an international committee of experts with an excellent assessment and valid suggestions for further development.

It is impossible to imagine the public sector without the Testing and Coordination Centre as an information centre for the media (print, online, radio and TV). Animal protection ombudsmen, provincial governments and ministries also use the Coordination Centre for information on dog welfare and keeping. This is also shown by the co-optation of Karl Weissenbacher into the permanent working group of the Animal Protection Council.



© Karin Bayez/Vetmeduni

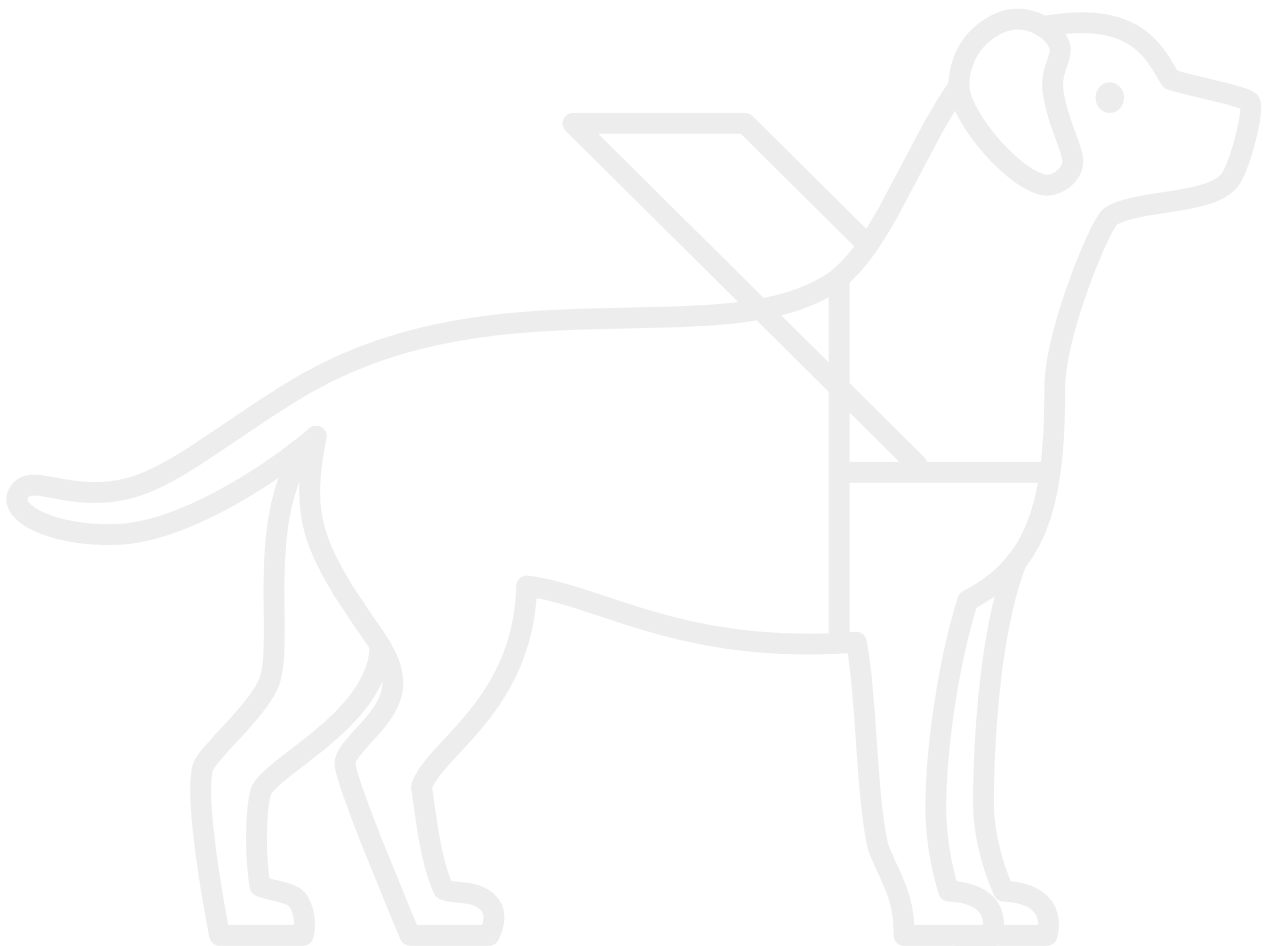
The integrative symposium “Kyntegra” for dog trainers, therapy dog owners, assistance dog owners and everyone interested in the topic.

**Coordination Centre Animal Welfare Qualified Dog Trainers**

A total of 123 trainers were newly examined in 2022, 34 of whom did not pass the examination. The number of active dog trainers qualified in animal welfare is now 519. A total of more than 12,500 hours of further training were recognised, thus improving the quality and level of knowledge of trainers in Austria.

**University Course Applied Cynology**

The seventh university course has been prepared and is scheduled to start in the winter semester of 2023.



# Teaching

## Interdisciplinary Master in Human-Animal Interactions (IMHAI)

The first cohort of the Master's programme, which was modified in October 2021 and is geared towards scientific research and an academic career, took their first steps into their own research in 2022. After an extensive methods course in the summer semester, during which the students were also able to visit the laboratories of the participating institutions, the students started their first own research project. Under expert guidance, they conducted research on the topic of non-human animals in society, animal-assisted pedagogy, vigilance as an indicator for assessing the well-being of cattle on farms, obedience and imitation in dogs, oxytocin response in horses, decision-making in Goffin's cockatoos, social learning in keas and selective sensitivity to human communication in domestic pigs. They were supervised not only by teachers from the Messerli Research Institute, the Institute for Animal Welfare Science and Husbandry

and the Domestication Lab at the Konrad Lorenz Institute for Comparative Behavioural Research, but also by a professor from the University of Erlangen and a professor from the Free University of Berlin. Both the topics and the supervisors could be chosen by the students themselves during the summer. In most cases, these topics will be continued for the Master's thesis and presented at the IMHAI symposium in June 2023. This symposium will be organised by these students themselves, the students of the second cohort will present their first research topics by means of posters. All teachers of the Master's programme will be invited to attend, and the event will also be announced on the Vetmeduni campus and on social media. In addition to the various other initiatives to promote the study programme, this should also contribute to its visibility on campus and beyond.





In 2022, the following graduates completed their IMHA studies at the Messerli Research Institute:

- **Katharina Zednik**

**“The allergy-protective raw milk effect: Receptor-mediated uptake of beta-lactoglobulin from milk in THP-1 cells”**

(Supervision: Isabella Pali)

- **Katie Baynham**

**“Is it morally permissible for non- invasive, experimental cognitive research to be carried out with captive-bred chimpanzees?”**

(Supervision: Judith Benz-Schwarzburg, Susana Monsó)

- **Karoline Gerwisch**

**“The Human-Animal-Relationship between individuals with Posttraumatic Stress Disorder and their assistance dogs – influence on the humans’ Quality of Life as well as on the dogs’ salivary cortisol levels”**

(Supervision: Ludwig Huber, Karl Weissenbacher, Michelle Proyer)



# Further teaching offers

Staff members of the Unit of Comparative Cognition taught not only at the Vetmeduni, but to a lesser extent also at the University of Vienna. As in previous years, final theses in 2022 were supervised not only by students from these two universities, but also from foreign universities. The final theses were those of Sabrina Karl, Magdalena Boch, Martina Putnik and Karoline Gerwisch. In total, 13 PhD, 16 Master's and three diploma students were supervised by the unit during 2022. Of these, two PhD and two Master's theses were successfully completed, while others are ongoing.

The Comparative Medicine team offers a variety of teaching opportunities at the University of Medicine and Veterinary Medicine: e.g. basic lectures in PhD training on immunology, in PhD programmes, main lectures Block 13 of medical students, mentoring programme for veterinary students. In 2022, one of the two ongoing Bachelor's students and four of eight Master's students (including IMHAI students) successfully graduated, while five PhDs were ongoing (Aila Fakhimahmadi, Sheriene Afify, Hanna Mayerhofer, Markus Berger, Nina Polakova).

The staff members of the Unit of Ethics and Human-Animal Studies taught topics in practical and theoretical philosophy and veterinary ethics at the Vetmeduni and the University of Vienna. In addition, in 2022 they taught at the following institutions, among others: University of Skopje, University of Agricultural and Environmental Education, FHWN Campus Wieselburg, University of Zagreb, University of Rostock, PH NÖ, PH Vienna, Diploma Course Specialist for Animal Assisted Interventions - Association "Animals as Therapy"; Animal Concepts/Practical Animal Welfare Science Platform, Kirchliche Pädagogische Hochschule or also Hochschule für angewandte Wissenschaften München.

In 2022, a total of nine PhD/doctoral theses (five Uni Vienna, four Vetmeduni) were supervised at the Unit of Ethics and Human-Animal Studies. Three of these theses were completed last year. In addition, 20 master's/diploma theses (eleven Uni Vienna, nine Vetmeduni) were supervised. Ten master's/diploma theses were completed (four Uni Vienna, six Vetmeduni).

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Associate Professors Franziska Roth-Walter and Karin Hufnagl stand for research-driven teaching.



© Herwig Grimm/Vetmeduni

Vlatko Ileski from Skopje explains the didactic concept of the VetNEST Summer School 2022 in Ohrid, North Macedonia.

© Cepii/MeduniWien



PhD student Hanna Mayerhofer (far right) from the CompMed team, was one of the best presenters at the Cepii Retreat.



© Herwig Grimm/Vetmeduni

Visit by Sigrd Müller with participants in the animal ethics seminar at the Faculty of Catholic Theology



## PhD and doctoral students

### DK Programme Cognition and Communication 2:

In the FWF-funded doctoral programme (deputy spokesperson: Ludwig Huber), the project on comparative brain research of dogs and humans (Sabrina Karl), co-funded by the Messerli Foundation, was successfully completed. A project on the sequential tool use of Goffin's cockatoos (Theresa Rößler) is halfway through, and new projects on the neurobiology of canine social cognition (Lucrezia Lonardo), canine overimitation (Louise Mackie) and combinatorial understanding of Goffin's cockatoos (Jeroen Zewald) were added.



Sabrina Karl with doctoral hat and doctoral supervisor Ludwig Huber after successfully defending her doctoral thesis.

© Karin Bayer/Vetmeduni



© Jennifer Colbourne/Vetmeduni

Jeroen Zewald with two of the Goffin's Cockatoos.

### PhD students in Comparative Cognitive

In addition to the DK programme, the following ten PhD projects were also supervised: on social learning of pigs (Ariane Veit), on face perception of dogs (Soon Young-Park), on social cognition of dogs (Lucrezia Lonardo), on movement imitation of kea (Elisabeth Suwandschieff) and on comparing tool innovation in Goffin's cockatoos and children (Antonio Osuna-Mascaro, Poppy Lambert, Jennifer Colbourne). Three PhD students started projects looking at the broad, multi-faceted nature of curiosity in kea (Cornelia Hahl, Gabriella Smith) and Falkland's caracara (Katie Harrington).

Left: © Claire Battin  
center, right: © Megan Lambert/Vetmeduni



Cornelia Hahl



Gabriella Smith



Katie Harrington



## PhD programme Molecular, Cellular and Clinical Allergology (MCCA)

This programme was originally supported by the FWF and has been integrated into the Danube Allergy Research Cluster since 2019, which is funded by Karl Landsteiner University Krems, Lower Austria. PhD student Aila Fakhimahmadi is working on the topic of mould allergy, identifying and cloning the responsible *Alternaria alternata* allergens and investigating the molecular and immunological mechanisms.

## PhD students in comparative medicine

Alongside Aila Fakhimahmadi in MCCA, Markus Berger, MD, is a PhD student working on a clinical study of *Alternaria* allergy.

Sheriene Affy, supported by an Egyptian exchange programme, was able to complete MD nostrification at the Medical University of Vienna in 2022 and submit her PhD thesis on “Beta-lactoglobulin in the farm effect”. Hanna Mayerhofer enrolled in the Dr. med. sci. Programme at the Medical University of Vienna and is researching the lipocalin-interactive membrane receptor (LIMR) in immunomodulation. Nina Polakova, veterinarian, works on the topic of diagnostic optimisation of allergies in dogs.

## PhD students of the Unit of Ethics and Human-Animal Studies

In the Unit of Ethics and Human-Animal Studies, nine scientists were supervised in various PhD programmes in 2022. In the PhD programme of the Vetmeduni: Birte Wrage (moral capacity of animals), Kerstin Weich (laboratory animal ethics), Mariessa Long (quality of life of horses) and in the PhD programme of the University of Copenhagen in cooperation with the Vetmeduni Svenja Springer (professional morality in veterinary medicine). Birte Wrage, Kerstin Weich and Svenja Springer successfully completed their theses last year. Andreas Aigner published his dissertation “The Lacanian Animal” on a psychoanalytical perspective on animal ethics in the book series “Interdisciplinary Animal Ethics” in 2022.

In the doctoral programme at the University of Vienna, the following were supervised: Sarah Espinosa (Ethics of Scarce Resources), Jessica Bicking (Forms of Normativity), Konstantin Deininger (Normativity of Unequal Human-Animal Relations), Konstantin Eckl (Possibility of Naturalisms) and Erich Linder (Aspect Vision and Moral Change).



© Thomas Suchanek/Vetmeduni

MCCA-PhD student Aila Fakhimahmadi works on the topic of mould allergy in the CompMed Lab.



© Herwig Gr.1mm/Vetmeduni

Svenja Springer defends her PhD thesis at the University of Copenhagen.



© Thomas Suchanek/Vetmeduni

After her PhD in philosophy of veterinary medicine, Kerstin Weich also obtains a doctorate in veterinary medicine.

# Involvement in committees

## Highlights 2022

As Head of the Institute, Ludwig Huber was not only responsible for the internal coordination and external communication of the Institute (e.g. annual report), but also played a leading role in the preparation and implementation of the annual meeting of the scientific advisory board of the Institute and the Messerli Foundation – including the 5-year evaluation. Associated with the function as Head of the Institute is the deputy of the Department Spokesperson and the coordination of the IMHA studies. He was also an honorary ambassador and member of the supervisory board of the Jane Goodall Institute Austria as well as a member of the scientific advisory board of the Schönbrunn Zoo. At the Vetmeduni, he was a member of the scientific advisory boards of the Animals as Therapy curriculum and the university course in cynology, as well as of the VetFarm coordination committee. Together with Zsófia Virányi, he is a member of the commission of the Testing and Coordination Centre for Assistance Dogs, Therapy Companion Dogs and Animal Welfare Qualified Dog Trainers and Head of the Clever Dog Lab association.



© Daniela Matejschek

Ludwig Huber (2nd from left) at the table with Jane Goodall (4th from left) at a fundraising dinner in Vienna Aspern.

Erika Jensen-Jarolim was able to significantly shape the allergological landscape in her role as President of the Austrian Society of Allergology and Immunology (ÖGAI). A particular concern of hers was to make the new specialisation of allergology known, as well as to make the society more open for cooperation with patient platforms, such as the Austrian Pollen Information Service, as well as with the Interest Group for Allergen



© Erika Jensen-Jarolim

ÖGAI president Erika Jensen Jarolim on stage: Opening of the MESIA – Central European Societies of Immunology and Allergy Conference.

Prevention. Digital patient consultations have been set up, as well as regular webinars, with over 1200 participants per semester. In addition to the 50th anniversary celebrations, the focus was on the organisation of the joint conference with the German Society for Immunology in Hanover with over 1000 delegates, as well as the Central European Societies for Immunology and Allergy (MESIA) in Prague.

In 2022, the staff of the Unit of Ethics and Human-Animal Studies were involved in various committees at local, national and international level. Among others, the following can be mentioned here: Senate of the University of Veterinary Medicine Vienna, Association of Professors (UPV) of the University of Veterinary Medicine Vienna, Animal Experimentation Commission, Curriculum Commissions (postgraduate courses, Equine Sciences, Human-Animal Relationship, Wildlife Management), Commission for Animal Experimentation Matters (§36) at the Federal Ministry of Science, Research and Economy, European Society for Agricultural and Food Ethics, Interspecies Rights Initiative (Scientific Advisory Board), Innovation Vet Circle, Tierschutz macht Schule (Scientific Advisory Board), Minding Animals Germany/International, European College of Animal Welfare and Behavioural Medicine, Animal Welfare Science, Ethics and Law, GTA Animal Cognition Group, International Society for Farm Animal Husbandry, Vetart Kunstforum, Federal Ethics Committee for Non-Human Biotechnology, Institut TTN at LMU Munich (Scientific Advisory Board), JKU Animal Ethics Council.



# Awards

**Ludwig Huber** was nominated for the German Non-Fiction Book Prize with the book “Das rationale Tier” (out of 140 proposals).

The book was later also nominated for the Science Book of the Year in Austria in the category “Medicine/Biology”.

**Isabella Pali** from the Comparative Medicine team achieved the prestigious Clemens von Pirquet Award of the Austrian Society of Allergology and Immunology (ÖGAI) with her publication in Clinical Translational Allergy. The paper was the first to describe beta-lactoglobulin as a protective factor from farm aerosols against allergies. The prize was awarded at the joint meeting of the ÖGAI and German Society for Immunology (DGfI) in Hanover in September 2022.



© Hirscher

Isabella Pali thanks for the award of the Pirquet Prize.



© Mollwestenhagen

The authors of the eight nominated books for the German Non-Fiction Prize 2022.



At the EurSafe Congress 2022 in Edinburgh, **Katharina Dieck** was awarded the “Vonne Lund Prize” for the best presentation. This prize is aimed at (PhD) students. The presentation was entitled: “Capturing the animal in ethics - linguistic perspectives on understanding the animal concept”.

**Johanna Karg** was awarded a sponsorship prize by the Dr. Maria Schaumayer Foundation for her diploma thesis “Farm Animal Ethics in Context – Feminist Approaches to Veterinary Ethics”. The foundation serves to promote scientific research and achievements by women in the fields of natural sciences, economics and political sciences.

**Megan Lambert** from the Unit of Comparative Cognition was awarded an Elise Richter project by the FWF for highly qualified women working in the arts and sciences who aspire to a university career.



© Herwig Grimm/Vetmeduni

Katharina Dieck (pictured with Kate Millar and Franck L.B. Meijboom) receives the Vonne Lund Junior Researcher Prize 2022.



© Eva Schwarzingler/Vetmeduni

Johanna Karg receives the Dr. Maria Schaumayer Award.



© FWF Luiza Puiu

Megan Lambert receives the Elise-Richter-Award from BMBWF Section Head Barbara Weitgruber and FWF President Christoph Gatteringer.

# Cooperations & International

## The most important cooperation partners in 2022

### Associated centres

#### **Institute for Pathophysiology and Allergy Research (ipa) at the Centre for Pathophysiology, Infectiology and Immunology (CePii) of Meduni Vienna**

For the Comparative Medicine team, the allergy focus and its bridging function in research make its anchoring at the Medical University of Vienna particularly important. A large number of research initiatives and scientific achievements stem from the research area of immunology/allergology/infectiology. Comparative Medicine is also located at the Centre for Pathophysiology, Infectiology and Immunology within the IPA – Institute for Pathophysiology and Allergy Research.

#### **Institute for Philosophy at the University of Vienna**

Through Herwig Grimm's honorary professorship, there is an intensive exchange and regular cooperation with the Institute of Philosophy at the University of Vienna. The institute is large by international standards and can draw on a wide range of expertise. In the past year, Martin Huth and Samuel Camenzind in particular – alongside Herwig Grimm – have taught at the Institute of Philosophy on questions of applied ethics such as animal ethics. Herwig Grimm's authorisation to teach as an honorary professor in the subject of "Ethics in Human-Animal Relations", which was granted by the University of Vienna in 2017, was extended indefinitely in 2022.



© CePii/MeduniWien

The participants of the CePii Retreat 2022 at Parkhotel Schönbrunn.



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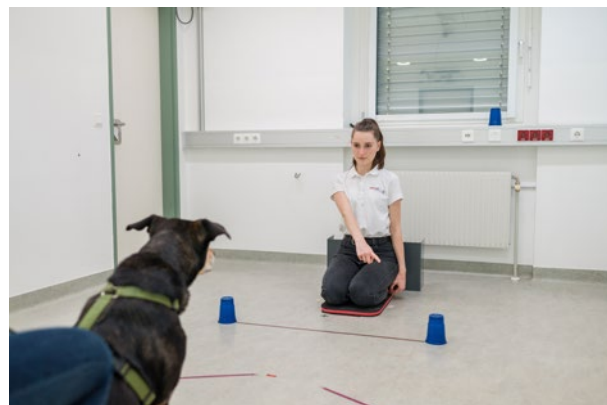


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Herwig Grimm, Katharina Dieck, Konstantin Deininger and Erich Linder were invited by the Norwegian University of Science and Technology to the Hurtigruten Seminar "Into Time's Enormous Nought. The Ethics of Genome Editing of Animals".

### Clever Dog Lab

The Clever Dog Lab is one of the world's leading laboratories for dog research and therefore also became a member of an international network of dog labs (ManyDogs). Highlights in 2022 included publications on understanding human communication and intentions in the journals *Developmental Science* and *Proceedings of the Royal Society B*. Dogs respond to so-called ostensive signals (such as direct response) early in life and are more likely to follow human communication after such signals. The researchers also found out what behavioural responses dogs show when they observe interactions between their caregiver and another dog and – using eye-tracking – how dogs recognise living beings through features such as self-propulsion.



Student Lena Zipperling with a study on pointing gestures from the ManyDogs project.



Lucrezia Lonardo, Christoph Völter, Ludwig Huber, Marion Umek and Laura Lausegger (from left to right) at a meeting in front of the mock scanner.



### Haidlhof Research Station

The Haidlhof Research Station has experienced both additions and departures in 2022. While the pigs from the Sägeacker were successfully moved to Gut Aiderbichl, three chicks were added to the kea laboratory. Animals in the wild have offspring every year, and these have a mitigating effect on group interactions. As more young grow up in human care, group sizes often quickly reach their maximum. Raoul Schwing, Florian Vogel and Amelia Wein-Schwing have been addressing this problem in recent years, controlling broods to avoid such a maximum. This allows the access of chicks at proper intervals. The brood of 2022 is the first expansion since 2017, and thus a major milestone in the management of this endangered species.

### Goffin Labs in Goldegg (Austria) and Tanimbar (Indonesia)

In 2022, the Goffin Lab Goldegg again conducted several studies on the tool use of Goffin's cockatoos. One highlight was a study showing that cockatoos can use two unrelated tools at the same time (Scientific Reports). In the Goffin Lab Tanimbar, several stable feeding platforms were installed, which will be equipped with motion-detecting cameras to further track the tool use of the wild animals on fruit stones. We were also able to send a Messerli researcher (Theresa Rössler) to our collaborators in Singapore for the first time to study the population of free-flying Goffin's cockatoos introduced there. The first observations indicate that the tool use of the animals is more widespread than previously suspected.



© Ludwig Huber/Vetmeduni



The Kune Kune pigs during their move to Gut Aiderbichl in Henndorf.



© Mark O'Hara/Vetmeduni

A bird's eye view of the Goffin Lab in Tanimbar.

### Wolf Science Center (WSC)

This year, the WSC welcomed new residents: seven puppies from three litters were raised and integrated into the packs of the older animals. Like all WSC animals, they started very early to participate in scientific research. We have tested, for example, whether they can find hidden food better because of a human gaze if the experimenter has called their name beforehand, instead of calling their attention with a bell. It is good to be able to be happy about these offspring, because some of the old animals have left us this year. Therefore, we hope that next year wolf pups will take the place of the dog pups in the hand-rearing enclosure and further increase the animal team of the WSC.

### Companion Animal Behaviour Working Group

In our seminar we discussed various topics with a group of dedicated students, e.g., “toilet training” of cows and its impact on global warming, eating dogs and keeping pets during the pandemic. In collaboration with Natalia Marcanova and Mathew White (environmental psychologist, University of Vienna), we compared the impulsivity of domestic dogs between built and green environments and found that parks promote self-control in dogs, similar to humans. Katharina Galunder developed a questionnaire on the quality of life of cats and won a poster prize. Raffaella Lesch, who joined the working group last autumn, received an assistant professorship in Arkansas. Christine Arhant opened her own small animal behaviour practice ([tierfairhalten.eu](http://tierfairhalten.eu)).



The puppies Kovu (brown) and Youma (black) moved in at the end of March and are being cared for by the trainers around the clock and raised by hand.



## Cooperation with our partner universities

### University of Veterinary Medicine Vienna

- Animal Care School
- Clinic for Swine
- Clinical Unit for Diagnostic Imaging
- Clinical Unit of Anaesthesiology and Perioperative Intensive Care Medicine
- Food Safety, Food Technology and Public Health in Veterinary Medicine
- Institute for Animal Welfare Science
- Institute for In-vivo and In-vitro Models (Laboratory Animal Science)
- Institute for Medical Biochemistry
- Institute for Population Genetics
- Konrad Lorenz Institute of Ethology
- University Clinic for Ruminants
- University Equine Hospital
- University Hospital for Small Animals (Dermatology, Oncology)
- VetCore

### University of Vienna

- Cognitive Science Platform
- Department of Behavioural and Cognitive Biology (Faculty of Life Sciences)
- Department of Cognition, Emotion and Methods in Psychology (Faculty of Psychology), SCAN Unit
- Institute for Philosophy

### Medical University of Vienna

- Austrian Pollen Information Service
- Centre for Medical Physics and Biomedical Engineering
- Centre for Pathophysiology, Infectiology and Immunology
- Department of Biomedical Imaging and Image-guided Therapy
- Department of Child and Adolescent Psychiatry
- Department of Dermatology
- Department of Otorhinolaryngology
- Department of Psychiatry and Psychotherapy
- Immunology Research Cluster

## Other national research partners

- Animals as therapy/science and training centre
- Austrian Academy of Sciences
- Austrian Institute of Technology Tulln
- Gut Aiderbichl
- Karl Landsteiner University Krems
- Kath. Private University Linz
- Professional Assistance Network, Vienna
- Schönbrunn Zoo
- University of Natural Resources and Life Sciences
- Vienna University of Technology
- Wels Zoo



The new Biology Building of the University of Vienna in Schlachthausgasse.

© Ludwig Huber/Vetmeduni



## Other international research partners

Comparative Cognitive Research staff had research partners on five continents in 2022: in Europe in Germany (Berlin, Frankfurt, Göttingen and Leipzig), Belgium (Ghent), France (Rennes, Strasbourg), the UK (Birmingham, Bristol, Edinburgh, Exeter, Lincoln, Oxford, St. Andrews and Stirling), Italy (Milan, Padua, Parma, Rome and Rovereto), the Netherlands (Leiden, Utrecht), Norway (Trondheim), Sweden (Lund) and Hungary (Budapest); in Asia in Indonesia (Bogor), Singapore and Japan (Tokyo); in South America in Brazil (Recife); in North America in Canada (Toronto) and the USA (Atlanta, Berkeley, Durham, Los Angeles, Minneapolis, Lincoln, and Stanford), and finally in Australia-Oceania in New Zealand (Auckland, Christchurch).

The Unit of Ethics and Human-Animal Studies cooperates with scientists at university institutions in Austria and abroad. With a view to international partners in 2022, the following institutions should be mentioned, among others: University of Copenhagen, York University, Queens University, UNED Madrid, Free University of Berlin, University of Skopje, Companion Animal Welfare Centre (Copenhagen), University of Glasgow, Norwegian University of Science and Technology.

## Cooperation at the level of networks and societies

Scientists in comparative cognition are represented in international societies and networks: in Europe (Junge Akademie der ÖAW, Ethologische Gesellschaft, The Association for the Study of Animal Behaviour, Canine Science Forum, European Association of Zoos and Aquaria), USA (American Psychological Association, Comparative Cognition Society), New Zealand (Kea Conservation) and transnationally (Animal Welfare Research Network, ManyPrimates, ManyDogs, ManyBirds, Atlas of Comparative Cognition).

In the European Academy of Allergology and Clinical Immunology, Erika Jensen-Jarolim, as well as Isabella Pali and Franziska Roth-Walter, are among the key opinion leaders through their involvement and leadership of the large working groups “AllergoOncology”, “OneHealth” and “Immuno-Nutrition”. The very successful network work is often reflected in European Position Papers 2022.

The Unit of Ethics maintains cooperation in networks and societies with a focus on animal ethics, veterinary ethics and basic and applied questions of practical philosophy. Examples include: Cultural and Literal Animal Studies, Minding Animals Germany/International, Jane Goodall Institute Austria, EVONORM, Normativity, Animal Concepts/PAWS or Vetart Kunstforum. The exchange within the framework of the European Society for Food and Agricultural Ethics (EurSafe), of which Herwig Grimm is Vice-President, is particularly relevant. EurSafe promotes interdisciplinary reflection on ethical issues in food production, which also includes aspects of animal ethics and veterinary ethics.



© Franziska Freudensprung/Vetmeduni

Team members of the international cooperation project of the University of Stirling and the Vetmeduni (see p. 21). From left to right: Zsófia Virányi, Giacomo Melis, Kea Amelung, Ariane Veit and Kirsten Blakey.



© Hirscher

The congress presidents Christine Falk, DGfI, and Erika Jensen-Jarolim, ÖGAI, were delighted with the successful Joint Congress in Hanover.

## Visiting researchers at the Messerli Research Institute

Yuri Kawaguchi (Japan Society for the Promotion of Science Grant) continued her work at the Clever Dog Lab in 2022. Her research focuses on how dogs distinguish between adult conspecifics and puppies.

The following guest researchers worked in the Unit of Ethics and Human-Animal Studies in 2022: Konstantin Deininger, Konstantin Eckl, Johanna Karg, Susana Monsó, Erich Linder and Taynna Marino.



Yuri Kawaguchi (right) explains the experimental setup to Lucrezia Lonardo.



Erich Linder, Johanna Karg, Konstantin Deininger and Konstantin Eckl completing a project proposal.



Taynna Marino was a guest researcher in the FWF project "Limits of Imagination" (PI Martin Huth).



# Infrastructure

## Field laboratory in Tanimbar

As the first and essential part of a future field laboratory, a converted office container was delivered and set up in Tanimbar. This laboratory will enable rapid molecular and genetic analyses of samples on site at the Goffin Lab Tanimbar.



© Berenika Mioduszevska/Vetmeduni

Mark O'Hara prepares samples for qPCR.



© Berenika Mioduszevska/Vetmeduni

The laboratory container in preliminary final position.



# Society & Public Relations

The Institute contributes to the promotion of scientifically sound and ethically justifiable treatment of animals in our society. In accordance with the Institute's mission statement, the Messerli Research Institute therefore considers it an important task to contribute knowledge from its research work to the public debate.

## Highlights of the media work

A series of astonishing discoveries by cognitive researchers about the intelligence of animals were the subject of media coverage: dogs as "mind readers" who distinguish between good and bad intentions or between clumsy and mean actions by humans; dogs as "physicists" who recognise impossible object movements; Goffin's cockatoos as "billiard or golf players" who combine the function of two tools and even assemble their own cutlery. A highlight was the publication of Ludwig Huber's book ("The Rational Animal"), which puts these findings into the larger social and ethical context. Comparative cognition research became the subject of many invitations to give lectures, for example in Berlin (DE), Toblach (IT), at the Rauriser Literaturtage (together with Barbara



Ludwig Huber in conversation with Manfred Mittermayer and Barbara Frischmuth at the Rauris Literature Days.

Frischmuth), at Keplerplatz in Vienna, at the Kulturzentrum Ternitz, as well as radio and television interviews and press releases ("Tierisch trickreiche Zeitgenossen", "pffiffige Denker in Fur und Federn").



Ludwig Huber presents his book "The Rational Animal" at the Ternitz Cultural Centre.

In 2022, the Comparative Medicine team initiated or was significantly involved in six press releases and press talks. The press releases by Isabella Pali on her work on the farm protection factor beta-lactoglobulin and the APA on Franziska Roth-Walter's publication on the "cow stall pill" generated particularly strong media coverage. The annual pollen press conference generated a large number of TV, radio, print and web releases.

In 2022, the work of the Unit of Ethics and Human-Animal Studies was once again the subject of wide-ranging national and international media coverage. One example is the study by Christian Dürnberger and Svenja Springer on the role of animals in online dating, which was reported on extensively in the "Standard", on "ORF" (live interview with Svenja Springer in the programme "Guten Morgen Österreich"), in the "FM4 Morningshow" and in numerous other media at home and abroad. Judith Benz-Schwarzburg cooperated with two of the major museums in Vienna's Museumsquartier in the context of animal ethics themed tours through the exhibitions "Handspells" (Kunsthalle Wien) and "Das Tier in Dir" (MUMOK). The tours met with lively interest from the media and the public. In addition, Svenja Springer gave an interview to the "Presse" about terminal care for pets; Konstantin Deininger spoke to the "Salzburger Nachrichten" about ethical questions of meat consumption; Judith Benz-Schwarzburg spoke to BR2 about basic rights for primates and to Ö1 about animals as moral beings.



Svenja Springer on the ORF programme "Good Morning Austria"

© Svenja Springer/Vetmeduni



Erika Jensen-Jarolim in ORF III, on "Allergies" with Dr Meryn on Monday.

© ORF



# Events

As Honorary Ambassador and member of the Supervisory Board, Ludwig Huber initiated an evening with the Jane Goodall Institute Austria on the topic of chimpanzee protection in Africa. Rebeca Atencia, the Executive Director of the Jane Goodall Institute in the Republic of Congo, reported on the tasks and challenges of the work in the sanctuaries in Africa in the large lecture hall A of the Vetmeduni. Judith Benz-Schwarzburg (EHAS) introduced the lecture with remarks on the key ethical questions we face when dealing with our closest living relatives, the Great Apes.



© Vetmeduni

Group picture with Ludwig Huber, Judith Benz-Schwarzburg, Rebeca Atencia, Gudrun Schindler-Rainbauer and Doris Schreyvogel (from left to right).

ÖGAI President Erika Jensen-Jarolim and DGfI President Christine Falk cordially invited to the joint meeting of both societies. The meeting with more than 1000 delegates took place in Hannover in September 2022 under the motto “Basic meets clinical immunology”. The scientific programme offered content from basic and translational immunology in the context of various diseases such as allergy, autoimmunity, cancer, transplantation and infections, of course with a special focus on COVID-19.



© Hirscher

The General Assembly of the ÖGAI also took place at the Hanover Meeting under the presidency of Erika Jensen-Jarolim.



The project “The Limits of Imagination – Animals, Empathy, Anthropomorphism” organised, among others, the following workshops: “Transforming Empathy?”, “Imagination and Empathy: What Possibilities, What Challenges, What Limits” and “Knowing the Distance: Intersectional, Decolonial, and Affective Approaches to Knowledge”.

In September 2022, a workshop was held at the Messerli Research Institute with Ivo Jacobs (Lund University) on the topic of ‘Thermal imaging as a tool for detecting animal mood changes’.

In November 2022, a workshop was held at Gut Aiderbichl on the topic of “Palliative care and end-of-life care for animals”. The focus was on the experiences of animal keepers in this context.

Samuel Camenzind, together with Matthias Eggel, organised the conference “Utopia Animalia” in October 2022 on Monte Verità in Switzerland.



Ivo Jacobs (Lund University) demonstrates the practical use of a thermal camera.

© Alice Auerberg/Vetmeduni



© Janine Schranz

The interdisciplinary conference “Utopia Animalia” on Monte Verità.



© Klaus Renger

Participation of the Goffin Lab in the Lower Austria Research Festival.



# Social Events



© Karin Bayer/Vetmeduni

One highlight was our team building in a high ropes climbing garden.



© Jennifer Bentlage/Vetmeduni

Hardworking hands help with the kitchen renovation.



© Gertrude Pieber

Ludwig Huber speaks to about 200 students at the BRG Hagenmüllergasse in Vienna.



© Eva Schwarzwinger/Vetmeduni



Herwig Grimm addresses words of thanks to Kerstin Weich, Birte Wrage and Samuel Camenzind, who have left the MRI in 2022.



© Svenja Springer/Vetmeduni



Christian Dürnberger hosts an entertaining quiz evening.



© Eva Schwarzingler/Vetmeduni

Katharina Dieck (pictured with Herwig Grimm and Martin Huth), who is leaving the MRI after four years, celebrates the completion of her Master's degree in Philosophy.

© Hannah Winther



Hike as part of the EurSafe Congress in Edinburgh.



© Berenika Mioduszewska/Vetmeduni

Mark O'Hara and Cardolin Latuputy invited to a football match of the newly formed FC Goffiniana to promote awareness of the Goffin Cockatoos.

© Jennifer Bentlage/Vetmeduni



Our long-time technician Wolfgang Aust-Berger is taking his well-deserved retirement.







The PhD students of the DK "Cognition and Communication" and their supervisors in Grünau am Almsee (Upper Austria).



The PhD students of the DK "Cognition and Communication" and their supervisors at the retreat in Illmitz (Burgenland).



International and CompMed-PhD students with supervisor Isabella Pali celebrate at the Hannover Congress.



Science Dinner in the CompMed team, from left: Natalie Szepannek, Nicoletta Marquard, Aila Fakhimamhadi, Hanna Mayerhofer, Karin Hufnagl, Erika Jensen-Jarolim, Rodolfo Bianchini.



Work experience days: Valentina Schöll learns basic laboratory techniques during a taster session in the lab.



MSc student Nicoletta Marquard, like her supervisor Erika Jensen-Jarolim, is happy after her excellent defense.



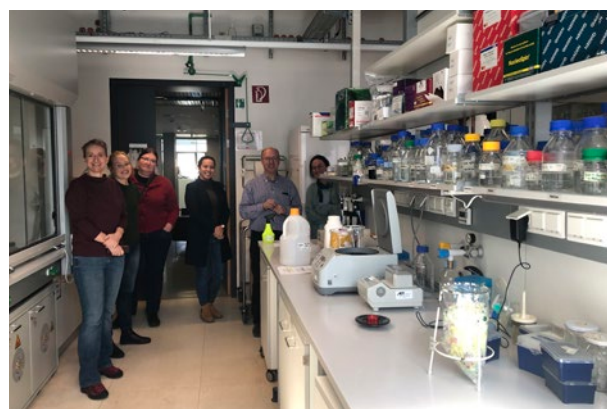


© Zsófia Virányi/Vetmeduni



© Zsófia Virányi/Vetmeduni

Messerli Howl Night: guided tour at the Wolf Science Center and sausage grilling in the Game Park despite the heavy rain.



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The CompMed team at the workshop with cooperation partner Prof. Markus Gorfer at AIT in Tulln.



© Karin Bayer/Vetmeduni

Christmas market visit of the Clever Dog Lab team in Hirschstetten.



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An excursion of the Companion Animal Behaviour Working Group in the stormy month of May.

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Research Institute

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