

# Annual Report 2023



## **Imprint**

Messerli Research Institute:

Jennifer Bentlage

Herwig Grimm

Ludwig Huber

Erika Jensen-Jarolim

Layout:

Birgit Rieger, [www.br-design.at](http://www.br-design.at)

Editing and translation:

Franziska Erlwein, [www.erlwein.at](http://www.erlwein.at)

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# Statements

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## Heinz Schweizer

### Honorary President of the Messerli Foundation

In 2010, the Messerli Research Institute was founded as a result of an international tender won by the three Viennese universities University of Veterinary Medicine Vienna, University of Vienna and Medical University of Vienna. This tender was initiated by the Messerli Foundation to promote animal welfare. Since then, the Messerli Research Institute has evolved into an internationally renowned hotspot for scientific research on human-animal relationships.

The Messerli Foundation has actively contributed to this positive development. most notably, an intensive and trusting collaboration was established with the Rectorate of the University of Veterinary Medicine Vienna, leading to a joint strategic plan until 2030 in the reporting year. This plan aims to expand the focus to molecular biology aspects of cognition and behaviour and strengthen multidisciplinary research through additional tenure-track professorships and a postdoctoral programme. Additionally, the strategy plan intends to promote synergies between research groups by adjusting the institute's structure and enhancing the dissemination of scientific insights into animal-human relationships to society and politics.

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## Petra Winter

### Rector of the University of Veterinary Medicine Vienna

In 2023, a future package for strategic development was crafted in collaboration with partner universities and the Messerli Foundation: the establishment of tenure-track professorships, an outreach platform, and a multidisciplinary postdoctoral programme are future cornerstones for the collaboration of various expertise. The Messerli Research Institute not only stands out for its excellent research results but also for the high graduation rate of students and engagement in societal discourse. My thanks go to the team and all long-term supporters of the Messerli Research Institute.

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## Manuela Baccarini

**Vice-Rector for Research and International Affairs of the University of Vienna**

The Messerli Research Institute has achieved significant scientific progress in 2023 and gained international visibility. Our interaction with our partner universities has been intensified, and trust and cohesion have grown. The extent and success of this integration can be seen, for example, in the participation of Prof. Grimm, Head of the Department of Ethics in Human-Animal Relationships, in the Cluster of Excellence Knowledge in Crisis. The expansion of the research institute initiated in 2023 and the establishment of new thematic areas provide excellent opportunities to further enhance interdisciplinary collaboration between the institute and its university partners. At the University of Vienna, interdisciplinarity is practiced and promoted within the framework of strategic priorities. These consolidate expertise from all disciplines and create synergies to contribute to major societal challenges. The goals and ambitions of the Messerli Research Institute are very much in line with the focus on Global Health, and the University of Vienna looks forward to strengthened, successful cooperation in this area.

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## Michaela Fritz

**Vice-Rector for Research and Innovation of the Medical University of Vienna**

The Messerli Research Institute has once again achieved an outstanding performance in research and education in the reporting year 2023 and has initiated significant strategic decisions for a successful future. The collaboration between the institute, the three universities involved, and the foundation was characterised by mutual trust this year, too. Thus, the joint objective to further develop the Messerli Research Institute as an internationally visible centre of competence and education for sustainable and responsible human-animal relationships will surely be successful.

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## Peter Sandøe

**Chairman of the Scientific Advisory Board**

We are looking into important developments for the Messerli Research Institute with a focus on both basic research relating to animal behaviour, animal cognition, immunology and ethics, and on applications with direct practical relevance - for example, through a new position in companion animal management. As a Scientific Advisory Board, we will do our best to ensure that these different types of research are not only each excellent, but that they are also jointly relevant to the Messerli vision of improving the lives of both animals and their owners.



# Editorial

## Ludwig Huber

**Head of Messerli Research Institute**

In 2023, two crucial steps were taken for the future of the Messerli Research Institute: the expansion of the institute and the organisational reform of the university.

The institute is set to expand in three key ways: a) by establishing new thematic fields, b) by enhancing networking and coherence between units, and c) by further developing measures for knowledge transfer.

The planned expansion steps were perceived within the institute as recognition of past activities and achievements. Significant scientific insights were achieved and published at all units, not least through the efforts of many young researchers in successfully funded third-party projects. Socially relevant and internationally visible research fueled knowledge transfer and awareness-building. Finally, for the first time, all available places in the master's programme in Human-Animal Relationships were filled.

Thus, the institute has established itself as a center of competence and education for sustainable and responsible human-animal relationships. After an

initial establishment phase and a second consolidation phase, we are now entering a third phase of expansion through new specialized fields and subject areas.

Parallel to these changes at the institute, the year 2024 will be characterised by the implementation of the organisational reform at the University of Veterinary Medicine Vienna. Embedded within the Department of Interdisciplinary Life Sciences, the institute will establish a new internal structure as a centre. The goal is to increase administrative efficiency, achieve synergy effects through shared use of facilities, and ensure the best possible integration and support for new tenure-track professorships and postdocs.

After completing my second (and final) term as Institute Director (or spokesperson), I will strive as Department Head to ensure that these two changes go hand in hand and yield the expected benefits over the next three years.



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# 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 (Vetmeduni) 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 relationships and its foundations in the fields of animal cognition and behaviour, comparative medicine, and ethics of human-animal studies.

## Teaching

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 organisational chart will change in 2024 due to the organisational reform mentioned in the preface. Until the end of 2023, the Messerli Research Institute consisted 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, linking the institute 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. The Messerli spokesperson function was converted into a management

function, in line with these institutes. This leadership role rotates between the Messerli professors every three years, in accordance with the rules of procedure of the Messerli Research Institute.

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. There is one IT position and there are two administrative positions covering all three the units for internal matters. At the Medical University of Vienna, there is a secretary for Comparative Medicine and an IT position for Comparative Cognitive Research.

In 2023, the institute had 40.8 full-time equivalent members of staff-- of which 20.8 were permanent and 20.0 were financed through third-party funding. There are other scientists working at the associated centres who are not included here.



A part of the Messerli team at the team-building event in summer.

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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. The success of the Institute has become of great personal importance to them.

# The Scientific Advisory Board



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



© ETH Zürich

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



© Call

**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 tasked with ensuring the scientific quality, timeliness and content focus of the research carried out at the Institute. The strategic orientation of research, as well as the Institute's international position and connections, are paramount to their responsibilities.

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



# Research

The focus of the research of the Messerli Research Institute is current questions relating the relationship between humans and animals and its foundations from a biological, medical and ethical perspective. The aim is to develop scientifically sound findings for the coexistence of humans and animals and to make them available to both the scientific and wider 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.



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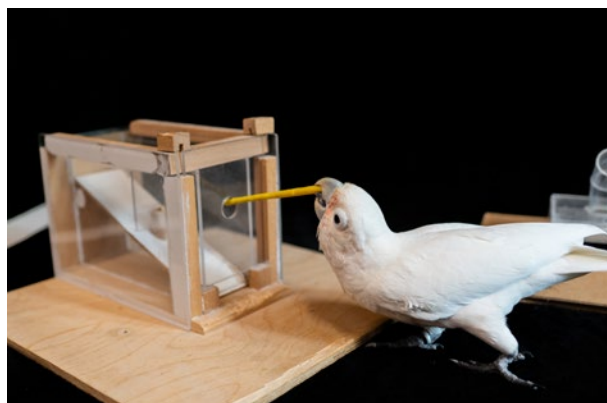
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## Interdisciplinary research

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 cooperation within the Institute, the Vetmeduni, the Viennese universities and with international partners is described in this annual report using selected examples on page 13 to 15.



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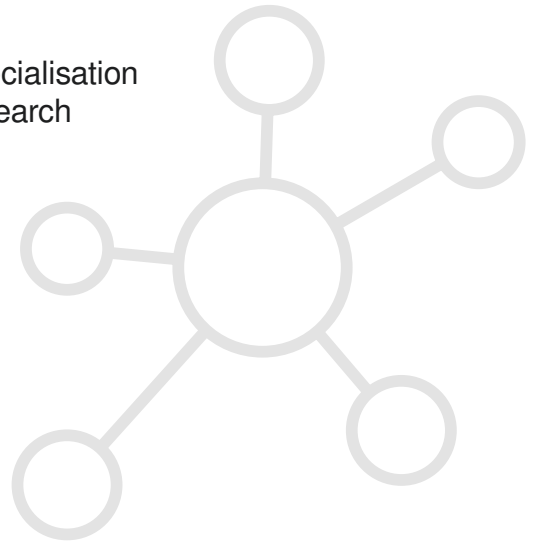


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## Interdisciplinary research

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 our inter-institute and inter-university research projects.



### Cooperation projects within the Messerli Research Institute (selection)

#### **Dogs at the workplace: effects on allergies and mental health**

*Isabella Pali (CM), Zsófia Virányi (CC), Rachel Dale (Donau University Krems, NÖ)*

In order to address the complex question of how companion dogs can impact human well-being at home or at the workplace, the units CM and CC teamed up with a psychologist to integrate relevant knowledge on allergology, human mental health and dog behaviour in a review article published in *Allergo Journal* and *Allergo Journal International*. This topic is further pursued by an IMHAI student, Osama Gamaleldin.

#### **Educational materials on Human-Animal Relationships**

*Judith Benz-Schwarzburg (EHAS), Ariane Veit (CC)*

Judith Benz-Schwarzburg and Ariane Veit collaborated within the framework of the Erasmus+ project ALICE (Animals, Climate and Civic Education), coordinated by the Institute for Civic Education Didactics at Leibniz University Hannover. The project provides educational materials (podcasts, a graphic novel with a didactic guide, instructional videos, and professional development including teaching modules) on human-animal relationships for teachers and students.

#### **Joint workshop on interdisciplinary work at Vethics conference**

*Svenja Springer (EHAS), Zsófia Virányi (CC)*

Fourty participants from the Veterinary Ethics Conference took part in the workshop *Betwixt and Between? Reflections on Interdisciplinary Work in Veterinary Ethics* on 27 September 2023, at which the EHAS and the CC teamed up to discuss the potential for and preconditions of successful interdisciplinary collaborations.

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## Cooperation projects within the Vetmeduni (selection)

### The latest advances in insect bite hypersensitivity in horses

*Isabella Pali (CM), Jessika Cavallerie (Equine University Clinic, Vetmeduni)*

As part of the joint supervision of the thesis of a Vetmed student (Kathrin Lindlbauer), Isabella Pali and Jessika Cavallerie have examined the latest developments in insect bite hypersensitivity/summer eczema and its correlation to asthma in horses—both through literature research and the collection of clinical data at the Vetmeduni, as well as at the LMU Munich.



© Ralf Siebeck

### Genomic Sexing of Goffin's cockatoos (*Cacatua goffiniana*)

*Mark O'Hara & Berenika Mioduszevska (CC), Ralf Steinborn & Martin Hofer (Vetcore, Vetmeduni)*

As part of a collaboration with the Genomics Unit of Vetcore, researchers from the Goffin Lab Tanimbar are planning to develop methods to enable the genetic sequencing of cockatoos based on feather samples and quantitative PCR..

### Interdisciplinary sustainability

*Christian Dürnberger (EHAS), Evelyne Selberherr (Food Microbiology, Vetmeduni)*

As part of a joint course, the topic of sustainability was introduced to aspiring veterinarians from an interdisciplinary perspective. This included surveying the students' expectations and knowledge level.

## Cooperation projects with other Viennese and Austrian universities (selection)

### The social brain of humans and dogs in comparison

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

In this project, brain scans (fMRI) have shown that the brains of dogs process social information partly similarly (analogously) to humans, but there are also specialisations indicating different brain mechanisms and processing processes. Funding: WWTF

### Mold allergy, an One Health issue

*Erika Jensen-Jarolim, Karin Hufnagl, Franziska Roth-Walter (all CM), Markus Gorfer, Angela Sessitsch (Austrian Institute of Technology, Tulln, NÖ)*

The Danube Allergy Research Cluster, led by Karl Landsteiner University of Health Sciences, Lower Austria, is a collaboration of 20 research laboratories. The Comparative Medicine team at the Messerli Research Institute and the team at the Medical University of Vienna are involved in the topic of mould allergy.

### Clusters of Excellence – Knowledge in crisis

*Herwig Grimm (EHAS), Board of Directors: Tim Crane, Katalin Farkas (Central European University), Marian David (University of Graz), Paulina Sliwa, Max Kölbel, Charlotte Werndl (University of Vienna)*

The flood of information on the internet challenges our ability to distinguish truth from falsehood. The rejection of scientific standards and expertise is spreading. This crisis raises profound philosophical questions about knowledge, truth, science, ethics, and politics, and ultimately about our relationship with reality itself. Herwig Grimm is one of the key researchers in the Excellence Initiative funded by the FWF with 8.9 million euros.

## International cooperation projects (selection)

### Projekt ALICE (Animals, Climate and Civic Education)

Ariane Veit (CC), Ronja Kummer (University of Hannover, Germany), Arne Schrader (Democracy Center Vienna), Rhiannon Westphal (Human-Animal Education Association), Alisa Nowak (Amiens Higher School of Art and Design), Jana Tafankaji (Evangelical School Berlin Center)

This project is funded by the European Commission and focuses on the relationship between humans and animals, as well as related aspects. As part of ALICE, six organisations from Germany, France, and Austria collaborate on developing teaching and learning materials for teachers and students.

### Farm against cat allergy

Erika Jensen-Jarolim (CM), Karl-Christan Bergmann (Charité, Berlin, Germany)

In a collaborative study with Prof. Karl-Christian Bergmann and his team at the Charité, Berlin improvements in symptoms relating to cat allergies were demonstrated through dietary management with the “barn pill.”



### Normativity and mechanistic approaches

Judith Benz-Schwarzburg (EHAS), Cristian Saborido (UNED, Madrid)

Judith Benz-Schwarzburg is a collaborative partner in the project Normativity and Mechanistic Approaches in the Philosophy of Biological and Biomedical Sciences (NORMABIOMED) led by Cristian Saborido from UNED, Madrid, Spain.

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

Isabella Pali (CM), Rupert Palme (Institute of Physiology, Pathophysiology and Biophysics, Vetmeduni); Collaboration with Kerstin Barth (Institute of Organic Farming, Johann Heinrich von Thünen Institute, Germany)

In a collaborative study with Kerstin Barth and her team, the effect of stress on different types of cow-calf contact on milk composition and subsequently on human immune cells (in the cell system) is being investigated within the framework of a PhD project (Simona Winkler). In the Barth group, welfare parameters and general inflammatory parameters were also collected, which are ultimately intended to be correlated with the parameters of milk composition.

### Swiss National Research Programme: Advancing 3R

Herwig Grimm (EHAS), Swiss National Science Foundation

The National Research Programme Advancing 3R – Animals, Research and Society (NRP 79) aims to promote innovative ideas and constructive approaches to solving problems related to animal experiments and their legitimacy. The programme's three main focuses are innovation, implementation, and ethics and society.



### Parrobots 2

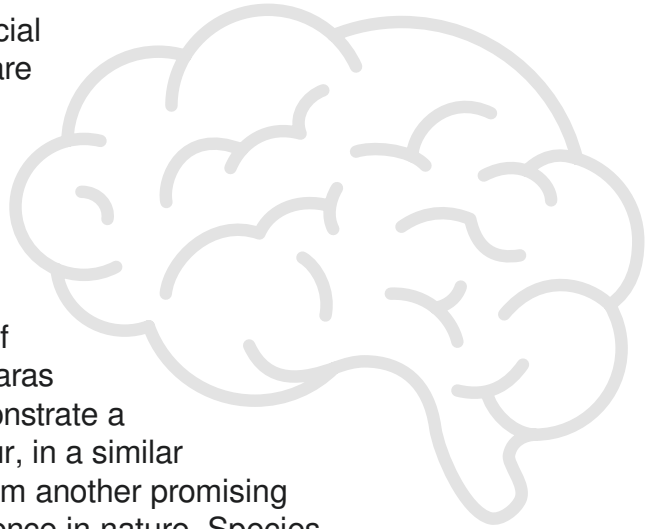
Alice Auersperg, Theresa Rössler, Jeroen Zewald, Antonio Osuna-Macaro (CC), Oliver Brock, Huu Duc Nguyen (TU Berlin), Alex Kacelnik (University Oxford)

We aim to extract programmable algorithms from the kinematic problem-solving behavior of cockatoos in this continuation of our interdisciplinary collaboration project between cognitive biologists at the MRI and roboticists at TU Berlin in the German Excellence Cluster SClol (Science of Intelligence).



## Comparative Cognition (CC)

In this unit, the cognitive, emotional, and social foundations of human-animal relationships are studied. In addition to the studies described in the two highlighted fields on dogs at the Clever Dog Lab and on Goffin cockatoos in the labs in Austria and Indonesia, employees of the Comparative Cognition unit have also investigated the abilities of kea parrots (at Haidlhof), wolves (at the Wolf Research Center), and – brand new – caracaras (in the Falklands). These birds of prey demonstrate a high level of innovativeness in their behaviour, in a similar way to the tool-using cockatoos, making them another promising species to study the development of intelligence in nature. Species conservation is an important issue relating to these special falcons, as it is for the Goffin cockatoos and wolves. The unit's research contributes to improving the relationship between humans and animals, specially in the field of assistance dogs and behavioural medicine.



### Team



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## Research Projects Highlights

### Perspective-taking in dogs

An important question in the study of the cognitive abilities of dogs is how they understand us humans. After all, they possess impressive abilities in interacting and communicating with us. Having an understanding of sight and knowledge is one of the most controversially debated topics in Comparative Cognition Research. In a collaborative project (ARED) with the University of Stirling (UK), we are investigating whether dogs are rational agents, meaning they can form beliefs and act based on reasons. After discovering that dogs prefer to follow a knowing rather than a guessing human, we took a step further. We were able to demonstrate for the first time that dogs can differentiate between misleading human informants, who either have a true or false belief about the location of hidden food. We also found evidence that dogs can distinguish between similar actions performed by humans that lead to the same outcome but are associated with different intentions (unwilling or unable). Based on these findings, we will launch an FWF project in 2024, which aims to delve deeper into the matter using new experimental and methodological approaches.



© Ludwig Huber/Vetmeduni

Can the dog project its knowledge about the transparency of the blue and yellow box onto humans and thus take its perspective?

### Goffin Cockatoos also use tool sets

Two years ago, we reported that wild Goffin cockatoos use multiple different tools for the same purpose, known as “tool sets.” Until then, animal tool sets were only known in chimpanzees in nature. They used hard sticks to puncture termite mounds, then employed flexible branches as probes for fishing. However, it was argued that chimpanzees did not have a mental concept of the two tools as a “set” but perceived them as two different solutions to two different problems. This argument became obsolete after chimpanzees were observed transporting both tools simultaneously to feeding sites. In our study, we presented the laboratory cockatoos with a similar set task (hard stick and flexible probe). We demonstrated that Goffin cockatoos not only invent tool sets in the laboratory but also transport them together when two tools are needed.



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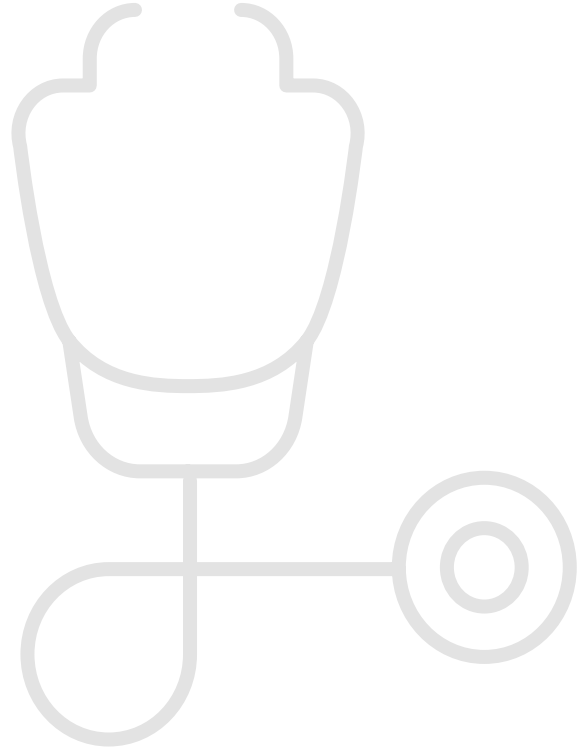
Goffin cockatoo Figaro in flight to solve the problem.



## Comparative Medizin (CM)

### From comparison to holistic understanding and One Health

The Comparative Medicine Unit sheds light on molecular and medical differences between species to improve diagnostics and therapies for both humans and animals. Allergy has been a particularly important research interest of the Comparative Medicine team, based on its strong immunological background, since the establishment of the Messerli Research Institute. Allergy issues are more pressing than ever today, given the exponential increase in climate and environmental pressure we face. Shared habitats and shifts in the environment of humans, animals, and plants result in immunological changes, elevating allergies to the second most common form of chronic disease in Austria. Recognising these systemic issues and developing strategies in line with One Health is a core competence of the Comparative Medicine team, supported by extensive international networking in the scientific allergology community.



### Team





## Research Projects Highlights

### Go Green in the healthcare sector

Go Green in the Healthcare Sector One Health has become part of the European Academy of Allergology and Immunology. Isabella Pali leads the One Health working group there with the aim of comprehensively and systematically assessing causal relationships between environmental pollution and climate change on the immune system and allergies. She not only highlights our vulnerabilities but also publishes practical recommendations in the top journal *Allergy* on how research and medicine can become more sustainable, supported by Go Green! webinars.



Isabella Pali from the Comparative Medicine team is an advocate of the Go Green! strategy.

### Mold allergies on the rise

Warmer temperatures and high humidity promote mold growth and mold allergies. In the *Alternaria* Mold Allergy project at the Danube Allergy Research Cluster, researchers are investigating how environmental factors interact with allergens and modulate subsequent immune responses. PhD student Aila Fakhimahmadi was able to decipher these molecular and immunological mechanisms of mould allergy in 2023, as reported in the *International Journal of Molecular Science* 2023.



Extreme weather conditions with thunderstorms and heavy rainfall favor mold allergies.



## 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 human-animal relationships.

Among other things, 2023 was marked by the launch of the FWF project Stigmatization of a profession? which examines the veterinary profession at the slaughterhouse.



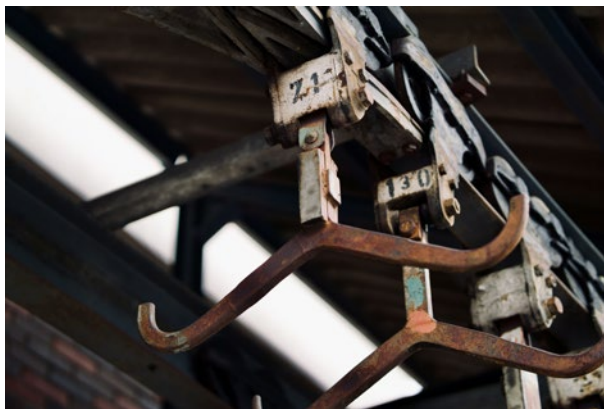
### Team



## Research Projects Highlights

### Veterinary Medicine at the Slaughterhouse

In the FWF-funded project Stigmatization of a profession? Christian Dürnberger and Johanna Karg are investigating an area of veterinary medicine that has received little attention both in society and in research: veterinary work at the slaughterhouse. The project focuses on an empirical survey among veterinarians working at the slaughterhouse. What challenges do they face? How do they experience their job in contemporary society? How do they describe their professional identity? The project aims to contribute to further strengthening empirically-oriented veterinary medical ethics at the Messerli Research Institute.



Meat hooks in a slaughterhouse.

### Encountering animals after Wittgenstein

The project will contribute to the methods in applied ethics by exploring normative diversity in human-animal interaction. To do so, it aims to understand whether a descriptive approach to animal ethics inspired by Wittgenstein can provide moral criticism. Contrary to the accusation that descriptive approaches lose the ability to criticise our current treatment of animals, the project's hypothesis is that the sources of every critical potential resides in established practices. Building on this hypothesis, the project explores the normative potential of how animals are conceptualised in practice (e.g., as patients, pets, etc.) compared to their conceptualisation in moral theories. The project is being carried out by Erich Linder under the supervision of Herwig Grimm and is funded by the Austrian Academy of Sciences.



Ludwig Wittgenstein in conversation with a lion.





# 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.

Our leading work in the European standardisation organisation CEN to develop a unified standard in the field of assistance dogs has been continued successfully. The working group Lifelong wellbeing of assistance dogs continued successfully its work in the reporting year, and the document progressed from the New Working Item stage to further processing and translation for public consultation. 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, two papers were published:

- A pilot study into the effects of PTSD-assistance dogs' work on their salivary cortisol levels and their handlers' quality of life; Journal of Applied Animal Welfare 2023; Karoline Gerwisch, Karl Weissenbacher, Michelle Proyer and Ludwig Huber
- Using mobile eye tracking to study spatial navigation in guide and pet dogs; Canine Science Forum 2023; Paula Berg, Karl Weissenbacher, Zsófia Virányi, Ludwig Huber and Christoph J. Völter

In 2023, 1,156 therapy assistance dog teams were tested in 152 testing sessions. For assistance dogs, 69 team tests and 30 quality tests were conducted.

It is impossible to imagine the public sector without the Testing and Coordination Centre as an information point 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 has also been shown by the co-optation of Karl Weissenbacher into the permanent working group of the Animal Protection Council.

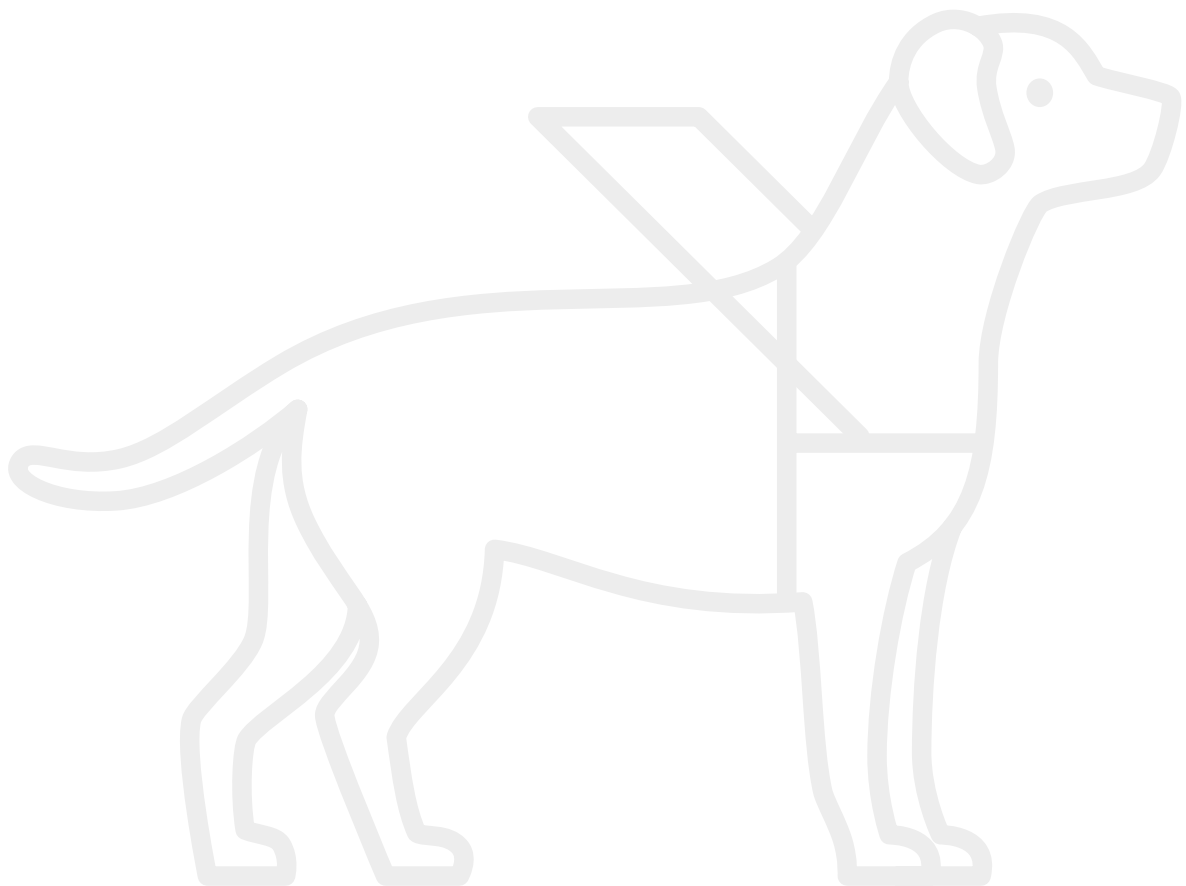


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The Kyntega conference brings together dog trainers, assistance and therapy dog handlers with exciting topics (veterinary medicine, dog training, and more).

### Coordination Centre Animal Welfare Qualified Dog Trainers

A total of 137 trainers were newly examined in 2023, 34 of whom did not pass the examination. The number of active dog trainers qualified in animal welfare is now 554. 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.





# Teaching

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

The IMHAI is a research-oriented master's programme that prepares students for an academic career in the field of human-animal relationships. This orientation was established in a curriculum reform in 2021. Since then, students from both the previous and current reformed curriculums have been supported by our staff. Students from the "old" curriculum had until autumn 2023 to complete their studies or switch to the reformed, heavily research-oriented programme. Against this backdrop, we are pleased to announce a large number of graduations in 2023. Whether focused on topics related to cooperation in dogs, animal welfare in therapy horses, or the role of zoos in wildlife conservation, the total of 23 graduations illustrates the diverse dedication of students to the study of human-animal relationships. We would like to express our gratitude to the instructors and supervisors who supported the students throughout their studies and enabled an exceptionally high number of graduations in the reporting year. In 2024, the first students of the "new" IMHAI will complete their research as part of their master's theses. As educators and supervisors, we look forward to continuing exciting collaboration with students and the results they produce.



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© Karin Bayer/Vetmeduni

The new IMHAI students on their first day.



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

- Carolina Ramos Frizzo | 20 June 2023  
(Supervision: Franziska Roth-Walter)
- Maximilian Benatar | 22 June 2023  
(Supervision: Judith Benz-Schwarzburg)
- Thomas Kainberger | 4 July 2023  
(Supervision: Herwig Grimm)
- Monique Schranz | 17 July 2023  
(Supervision: Raoul Schwing)
- Franziska Freudensprung | 25 July 2023  
(Supervision: Zsófia Virányi)
- Yasmin Gräter | 26 June 2023  
(Supervision: Raoul Schwing)
- Kinga Kovacs | 21 August 2023  
(Supervision: Zsófia Virányi)
- Julie Cheekhooree | 8 September 2023  
(Supervision: Erika Jensen-Jarolim)
- Kimberly Brosche | 14 September 2023  
(Supervision: Zsófia Virányi)
- Elisabeth Fanzoj | 14 September 2023  
(Supervision: Herwig Grimm)
- Christiana Tsiourti | 20 September 2023  
(Supervision: Zsófia Virányi)
- Linda Kalb | 21 September 2023  
(Supervision: Ludwig Huber)
- Diana Petri | 28 September 2023  
(Supervision: Zsófia Virányi)
- Jeanne Trehorel | 6 December 2023  
(Supervision: Ludwig Huber)

Eight more IMHA graduates successfully completed their studies at other departments of the Vetmeduni.



The students in the fourth semester organised the first successful IMHAI Symposium.

# Human Animal Interactions Symposium



**22nd of June 2023 | 9-16**  
Vetmeduni  
Lecture Hall C

The 1<sup>st</sup> Symposium on Human-Animal Interactions 2023 in Vienna sets the stage for current research on the relationships between humans and animals. It covers a variety of topics ranging from animal husbandry, animal welfare, behavioral and cognitive biology to comparative medicine and ethics.

**Free Beverages + Snacks**

**Dr. Lisa Horn-Péter**  
[Guest Speaker]

**Research Talks**  
[by Students]

# Human Animal Interactions Symposium Program

**22nd of June 2023 | 9-17**  
Vetmeduni  
Lecture Hall C

08:30	Door opening		
09:00	Welcome by Univ.-Prof. Dr. Huber & Vice rector Univ.-Prof. Dr. Rehage	12:35	LUNCH BREAK
09:20	<b>Dr. Lisa Horn-Péter</b> (keynote) Prosociality in children and corvids	13:35	Poster session
10:05	COFFEE BREAK	14:35	<b>Inken Seib</b> The political inclusion of farm animals' interests
10:35	<b>Kimberly Brosche</b> Addressing pigs: A comparative study on pigs' selective sensitivity on human ostensive communication	15:05	<b>Barbara Heinisch</b> Vigilance behaviour as indicator in on-farm cattle welfare assessment
11:05	<b>Jeanne Tréhorel</b> Why should I copy you? Exploring the link between overimitation and obedience in dogs	15:35	COFFEE BREAK
11:35	<b>Narayan Patel</b> Controls in goffin cockatoos (Cacatua goffiniana)	15:55	<b>Juliette Gratalon</b> Behavioral and endocrine responses in horses after human interaction
12:05	<b>Yasmin Gräter</b> Stimulus enhancement in kea (Nestor notabilis) doing an object choice task	16:25	<b>Astrid Kristl</b> Dog-assisted-education in the English language classroom - Effects of a school dog in middle-schoolers' performance on a vocabulary acquisition task
		16:55	Closing



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Impressions from the first IMHAI Symposium.



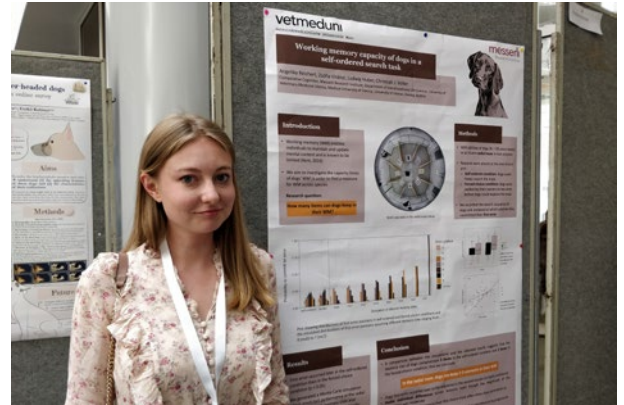
## Further teaching offers

Staff members of the Unit of Comparative Cognition taught not only at the Vetmeduni, but to a lesser extent, also at the two partner universities.

For example, Ludwig Huber participated in one seminar and two lectures as a lecturer at the University of Vienna, and also took part in two lectures at the Medical University of Vienna. As in previous years, theses were supervised not only by students from these two universities but also from foreign universities. Theses were completed by Carmen Schwarzl, Martina Putnik, Aylin Lehmann, Veronika Szewczak, Angelika Reichert, and Pauline van der Wolf. In total, the Unit supervised 12 PhD, 18 master's, and five diploma students in 2023. Of these, one PhD and eight master's theses were completed successfully.

The Comparative Medicine team not only provides teaching in the IMHAI master's programme but also offers various other teaching opportunities at the Medical and Veterinary University, such as basic lectures in the PhD programme in Immunology, in doctoral programmes, main lectures for medical students in Block 13, and mentoring programmes for veterinary students.

The staff members of the Unit of Ethics and Human-Animal Studies taught topics in practical philosophy and veterinary ethics at the Vetmeduni and the University of Vienna. In addition, they taught at the following institutions, among others, in 2023: Faculty of Veterinary Medicine, Zagreb, University of Agricultural and Environmental Education, FHWN Campus Wieselburg, University of Rostock, University College of Teacher Education Lower Austria, Diploma Course Specialist for Animal Assisted Interventions – Association "Animals as Therapy, Medical University of Graz



Angelika Reichert presents her master's thesis at the Canine Science Forum in Budapest.

© Karin Bayer/Vetmeduni



Ludwig Huber explains the touchscreen for dogs to a group of students.

© Jennifer Bentlage/Vetmeduni

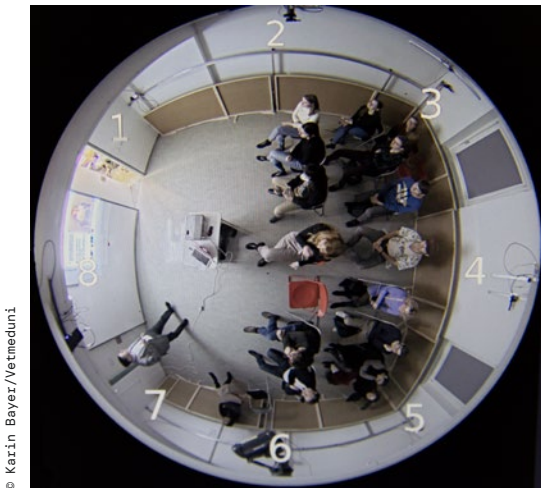
## PhD and doctoral students

### DK Programme Cognition and Communication 2

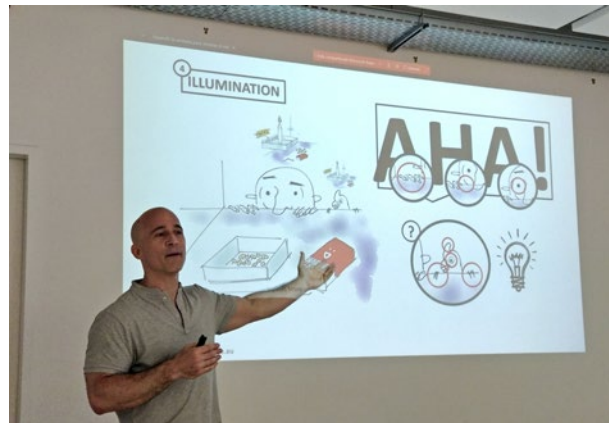
In this doctoral programme funded by the FWF (Deputy Spokesperson: Ludwig Huber), one entire project (Louise Mackie's project on the overimitation of dogs) is funded and three other projects (by Theresa Rößler on sequential tool use, by Jeroen Zewald on the combinatorial understanding of Goffin cockatoos, and by Lucrezia Lonardo on the neurobiology of social cognition in dogs) are co-financed. All four PhD students are in the final year of their doctoral studies.

### PhD students in Comparative Cognitive

In total, nine PhD projects were supervised in the Unit outside the DK programme: Soon Young-Park on facial perception in dogs, Ariane Veit on social learning in pigs, and Elisabeth Suwandschieff on motion imitation in kea. Antonio Osuna-Mascaró, Poppy Lambert, and Jennifer Colbourne compared tool innovation in Goffin cockatoos and children. Three doctoral candidates investigated bird curiosity: Cornelia Hahl and Gabriella Smith on kea and Katie Harrington on karakara falcons.



Fisheye perspective of the DK Lab visit at the Clever Dog Lab.



Antonio Osuna-Mascaró successfully defended his PhD thesis.



DK Lab Visit



### PhD One Health Doctoral Programme at the University of Veterinary Medicine Vienna

In this PhD programme, Isabella Pali is the Principal Investigator (PI) and supervises her PhD student, Simona Winkler, who was selected in 2023 through an international competitive process. In her PhD project, One Health in Allergology, she is investigating the extent to which specific weaning conditions affect stress in mother animals and, consequently, the content and quality of beta-lactoglobulin in their milk.

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

Das Programm MCCA wurde in den Danube Allergy The MCCA programme has been integrated into the Danube Allergy Research Cluster, so Aila Fakhimamadi's PhD work is focused on mold allergy (*Alternaria alternata*). In this regard, she presented several poster presentations and talks in 2023, including an internal seminar as part of a Messerli Institute Council. She also won poster awards and published her first first-author paper in a peer-reviewed, international journal.

### PhD students in comparative medicine

In 2023, one out of the two ongoing BSc students and three out of 10 master students (including IMHAI) successfully completed their studies, while four PhDs and one DVM were in progress (Aila Fakhimamadi, Hanna Mayerhofer, Simona Winkler, Markus Berger).



Simona Winkler presents her work at the One Health Kick-Off Meeting.

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

In the Unit of Ethics and Human-Animal Studies, seven scientists were supervised in various PhD programmes in 2023. In the PhD programme of the Vetmeduni: Mariessa Long (Quality of life of horses). In the doctoral programme at the Vetmeduni: Dominik Hajosi (Cost-benefit analysis in animal experimentation). In the PhD programme at the University of Vienna: Sarah Espinosa (Ethics of scarce resources), Jessica Bicking (Forms of normativity), Konstantin Deininger (Normativity of unequal human-animal relationships), Konstantin Eckl (Possibility of naturalisms), and Erich Linder (Aspectual seeing and moral change). Sarah Espinosa successfully completed her work last year.



Sherienna Moussa (centre) along with Isabella Pali (left) and Erika Jensen-Jarolim (right) after their successful PhD defense. Isabella Pali at the One Health Kick-Off Meeting.



Erich Linder, Konstantin Eckl and Konstantin Deininger on their way to Pardubice.

# Involvement in committees

## Highlights 2023

Ludwig Huber completed his second term as Head of the Institute (2011-2014 and 2021-2023). His role involved coordinating the IMHAI programme, for which he also assumed responsibility as chairman of the relevant curriculum committee. Since 1 March 2023, he has also been the head of the Department of Interdisciplinary Life Sciences and has contributed significantly to the reform of the university (Vetmeduni+). At the Vetmeduni, he also served on the scientific advisory boards of the Animals as Therapy curriculum, the University Course in Canine Science, and the coordinating body of VetFarm, as well as the Commission of the Examination and Coordination Center for Assistance, Therapy Companion Dogs, and Animal Welfare Qualified Dog Trainers. Additionally, he was an honorary ambassador and member of the board of trustees of the Jane Goodall Institute Austria and a member of the scientific advisory board of Tiergarten Schönbrunn.

The Comparative Medicine team leverages its strong network in allergology to advocate for the causes that are vital to the Messerli Research Institute. Allergies are a typical One Health problem, as changes in the environment negatively affect humans, animals, and plants alike.



Ludwig Huber (left), as Head of the Department, with his deputy Claudia Bieber and Leonida Fusani.

© Thomas Suchanek/Vetmeduni

Isabella Pali leads the One Health working group with 500 members in the European Academy of Allergology and Immunology. Erika Jensen-Jarolim heads the equally interdisciplinary AllergoOncology working group there, with over 1,000 members and four task forces.



© Erika Jensen-Jarolim

Erika Jensen-Jarolim leads the AllergoOncology group within the EAACI, European Academy of Allergology and Clinical Immunology.



Franziska Roth-Walter serves as secretary of the Immunomodulation and Nutrition working group of the EAACI and heads a task force, while Rodolfo Bianchini serves as secretary of the MacTool task force within the AllergoOncology group. In the Austrian Society of Allergology and Immunology, Erika Jensen-Jarolim has been the Past President since 2023.

Furthermore, Isabella Pali is also involved in the committees Sustainability Advisory Board/Subgroup Research and Curriculum Reform/Subgroup Sustainability and One Health at the University of Veterinary Medicine Vienna.



Isabella Pali at the One Health Kick-Off Meeting.

The employees of the Unit of Ethics in Human-Animal Relationships were engaged in various committees at the local, national, and international levels in 2023. As the chair of the Senate, Herwig Grimm was not only involved in the usual Senate matters but also participated in the planning of the organisational reform of the Vetmeduni, as a member of the steering group. Additionally, he serves as the deputy chairperson in the University Professors Association of the

Vetmeduni (UPV). Svenja Springer is actively involved as a full member of the Senate. Other committees at the Vetmeduni where employees are engaged include:

- University Teachers Association (ULV)
- Animal Experimentation Commission
- Curriculum Committees (postgraduate programmes, equine sciences, human-animal relationships, wildlife management)
- Evaluation Circles for bachelor's and master's programmes at the Vetmeduni
- Educational Working Group
- Sustainability Advisory Board
- One Health Working Group

At the national and international levels, additional committees include:

- Commission for Animal Experimentation Affairs (§36) at the Federal Ministry of Science
  - Research, and Economy
  - European Society for Agricultural and Food Ethics
  - Minding Animals Germany
  - Interspecies Rights Initiative (Scientific Advisory Board)
  - Innovation Vet Circle
  - Animal Welfare Education (Scientific Advisory Board)
  - European College of Animal Welfare and Behavioral Medicine
  - GTA Animal Cognition Group
  - Swiss Federal Ethics Committee on Non-Human Biotechnology
  - TTN Institute at LMU Munich (Scientific Advisory Board)
  - Animal Ethics Council of Johannes Kepler University Linz
- among others.



Herwig Grimm at the closing event Vetmeduni+ – Shaping the Future.



© Thomas Suchanek/Vetmeduni

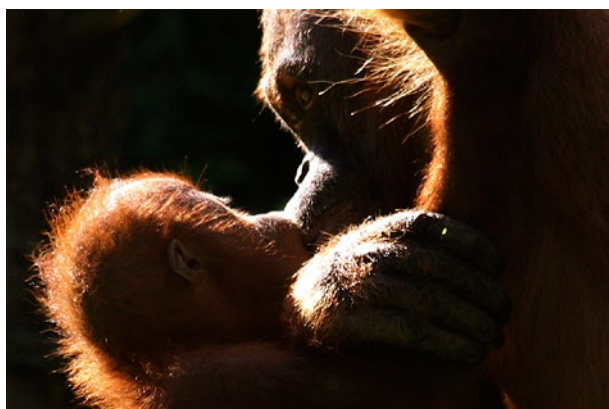
# Awards

Members of the Unit of Comparative Cognition Research received prestigious awards at international conferences: Christoph Völter for the best presentation and Paula Berg for the best poster at the Canine Science Forum (CSF) in Budapest, and Jeroen Zewald for the best student presentation at the Comparative Cognition Conference (CO3) in Melbourne (USA). Additionally, Stefanie Riemer won the Animals Best Paper Award for a study on alleviating fear and aggression in dogs and cats in veterinary medicine, Alice Auersperg won the photo contest 'Animal Encounters' at the Vetmeduni, and student Anastasia Ryabokon, along with her supervisor Raoul Schwing, received the Talents Internship Award. Particularly noteworthy is the Forster-Steinberg Student Prize for a thesis with a focus on animal welfare and animal protection – this was awarded to IMHAI student Kimberly Brosche (supervised by Zsófia Virányi).



© Karin Beyer/Vetmeduni

Paula Berg (right) together with her supervisor Christoph Völter (center) and the CSF organiser Péter Pongrácz (left).



© Alice Auersperg/Vetmeduni

The winning photo by Alice Auersperg titled: "Mother: Orangutan mouth to mouth with two year old infant."



© Ariane Veit/Vetmeduni

Kimberly Brosche with the Kune Kune pig Barbarossa.



© Jennifer Colbourne/Vetmeduni

Jeroen Zewald was awarded for the best presentation at the CO3 conference.



The Comparative Medicine team is proud to announce that Isabella Pali was named the most cited scientist at the Vetmeduni in the non-clinical field in 2023. Most recently, she has been working with great success on the so-called farm effect against allergies and has already been top cited with this work. Isabella Pali heads the research group One Health in Allergology at the Messerli Research Institute and supervises a corresponding PhD project within the One Health PhD programme at the Vetmeduni. She is not only involved in scientific research on One Health issues but is also deeply committed to their implementation and the development of guidelines to improve the environment, including directly on the Vetmeduni campus. To expand outreach, she has organised successful Go Green! webinars.



Isabella Pali, top-cited publication in the Clinical Translational Allergy Journal.

Erich Linder was awarded a DOC Fellowship by the Austrian Academy of Sciences. With this programme, the ÖAW supports highly qualified doctoral students from all areas of research who are pursuing their doctoral studies at an Austrian university. In his project, Erich Linder is examining the consequences of applying Wittgensteinian ideas to animal ethics.



Erich Linder at the ceremonial awarding of the ÖAW Doc Fellowship. (from left to right) Ulrike Diepold, Martin Polaschek, Erich Linder, and Heinz Faßmann.

# Cooperation & International

## The most important cooperation partners in 2023

### Associated centres

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

The anchorage at the Medical University of Vienna is particularly important for the Comparative Medicine team due to its bridging function, as well as its immunological and allergological research. Comparative Medicine also has a foothold within the Center for Pathophysiology, Infectiology, and Immunology as part of the IPA (Institute of Pathophysiology and Allergy Research). The close connection with the IPA is evident in the fact that Erika Jensen-Jarolim – as a former institute director – now heads IPA Department 1 and was very present at the 150th anniversary celebration of the historic institute on 17 November, 2023. The field of allergology has not only shaped the IPA but is also firmly integrated into the Messerli Research Institute and interpreted in the context of One Health.

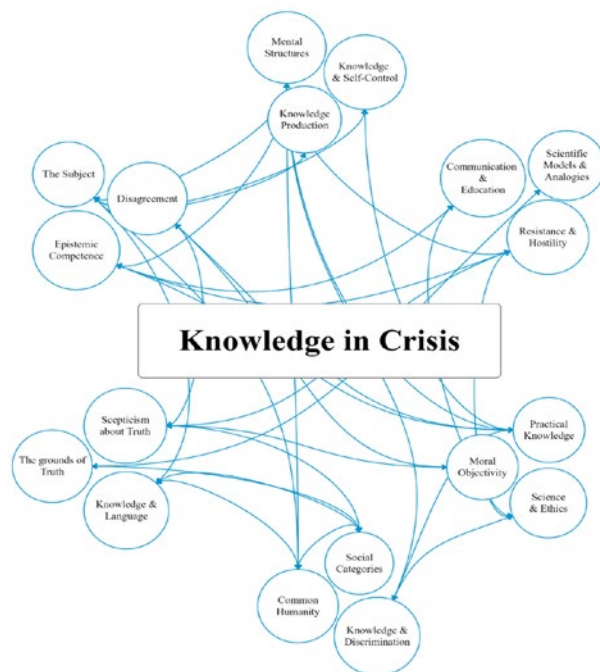


© ipa meduniwien

150 years of the Institute of Pathophysiology and Allergy Research – a reason to celebrate at the Medical Society of Vienna.

#### **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. This particularly exists in the area of teaching, collaboration in an FWF-funded doctoral college, the Vienna Doctoral School of Philosophy, and in the FWF Cluster of Excellence Knowledge in Crisis. The Institute of Philosophy is large in international comparison and can draw on diverse expertise, which benefits the interdisciplinary nature of the MRI.



Knowledge in Crisis brings together 33 philosophers to investigate questions within six key areas: Knowledge, Mind, Science, Ethics, Society and Language.



### Clever Dog Lab

The year 2023 was the most successful year to date for the Clever Dog Labs in terms of securing excellence projects. Three large FWF projects were approved: two by Ludwig Huber (on perspective-taking in dogs and on overimitation in dogs) and one by Christoph Völter on recognising human intentions in dogs. With these third-party funds (> 1.4 million euros), three postdocs, two PhD students, and two dog trainers (recruited through international advertisement) will be employed in the coming years.

In addition, there is the ManyDogs project proposed by Huber, which was selected by members of the international network of 20 dog labs. Finally, Ludwig Huber's team will also participate in the ESPRIT project (FWF) by Raul Hernandez on Networks of the Social Brain (dog-human comparison) in collaboration with the University of Vienna. A dozen publications in respected scientific journals round off the success of the lab.



International exchange with scientists on the topic of cognition in dogs.



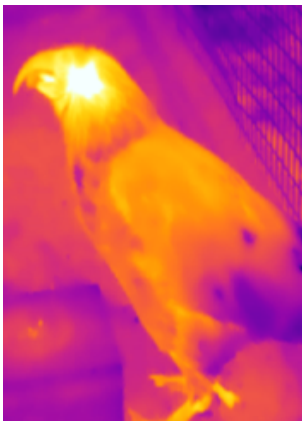
## Haidlhof Research Station

Three proprietary FWF projects and an ERC project led by a visiting scientist (Alex Taylor) shaped the Kea research at Haidlhof. Within Megan Lambert's FWF projects, research was conducted on how Kea respond to novelty, whether they show a child-like preference for viewing images of medium complexity, and whether observing events that violate their expectations trigger behavioural or body temperature responses. It was also investigated whether Kea use visual information about size, volume, or material to estimate the weight of objects. In Raoul Schwing's FWF project on social learning in Kea, the high behavioural flexibility of Kea was demonstrated in solving a demonstrated sequence task. A second study confirmed that Kea do not simply blindly copy demonstrated behaviour but prefer to devise their own solutions. Two researchers from Professor Taylor's team (Barcelona) will assess Kea's ability for probability estimation within the framework of his five-year ERC project.

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

In 2023, the technical abilities of Goffin's cockatoos were also a focus. Highlights included evidence that these birds carry a toolkit, soften food in water to alter its consistency, and can visually estimate the weight of objects. Furthermore, the problem-solving behaviour of the cockatoos was compared to that of human children. In Singapore, the practice of combinatory tool use was demonstrated for the first time in released Goffin's cockatoos. Field research in Tanimbar was enriched by the first-time use of feeding platforms equipped with automatic camera systems. This enables the identification of wild birds to begin using a specially developed computer program. Also in progress is the establishment of a mobile molecular laboratory, which will allow the genome of wild birds to be analyzed on-site.

links: © Gabriella Smith  
rechts: © Megan Lambert/Vetmeduni



The thermal image of a Kea in the magic trick experiment.



The Kea Pick at the peephole to measure the effect of stimulus complexity.



© Jeroen Zwaal/Vetmeduni

A Goffin's cockatoo dips food into a liquid to alter its consistency.





### **Wolf Science Center (WSC)**

While the puppy dogs from the year 2022 grow up and eagerly participate in our studies, some of the wolves at the WSC are getting old. Last year, we had to say goodbye to Nanuk and Kenai. Many thanks to them for working with us throughout their lives! To ensure that we can replenish our wolf population, the WSC trainers made great efforts last year to establish connections with other wildlife parks and assist them in forming pairs of unrelated animals that could become the parents of our puppies. In the meantime, Diana Petri completed her master's thesis in IMHAI, where she compared the understanding of dogs and wolves. Thanks to colleagues from Brazil, we published an interesting paper on how dogs and wolves respond to friendly and scolding tones during training.

### **Companion Animal Behaviour Working Group**

Rachel Dale from the Center for Mental Health Research at Danube University in Krems coordinated our activities to investigate the intertwining well-being of companion animals and their human caretakers. We published an integrative review on how dogs accompanying their owners in the workplace can affect stress levels, allergy symptoms, mental health of employees, and collaboration among them in collaboration with her and Isabella Pali. As part of our IMHAI teaching, we also initiated a questionnaire study to examine potential interactions between these effects. To explore whether these effects can be extended to a broader audience when dogs and humans interact in urban parks, we submitted a proposal to WWTF Environmental Systems Research in collaboration with Arne Arnberger from the Institute of Landscape Development at BOKU.



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© Zsófia Virányi/Vetmeduni

Dogs in the workplace have a positive effect.

## 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
- Institute for Animal Welfare Science
- Institute for In-vivo and In-vitro Models (Laboratory Animal Science)
- Institute for Medical Biochemistry
- Institute for Population Genetics
- Institute of Food Safety, Food Technology and Public Health in Veterinary Medicine
- 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/sciences and training centre
- Austrian Academy of Sciences
- Austrian Institute of Technology Tulln
- Catholic Private University Linz
- Central European University
- Gut Aiderbichl
- Karl Landsteiner University Krems
- Professional Assistance Network, Vienna
- University of Natural Resources and Life Sciences
- Vienna University of Technology
- Zoo Schönbrunn
- Zoo Wels

## Other international research partners

Comparative Cognitive Research staff had research partners on five continents in 2023: in Europe, in Germany (Berlin, Leipzig, Munich, Hagen), France (Rennes, Strasbourg), the UK (Birmingham, Edinburgh, Lincoln, Oxford, St. Andrews, Stirling), Italy (Milan, Padua, Parma, Rome, Rovereto), the Netherlands (Leiden, Utrecht), Norway (Trondheim), Sweden (Lund), Spain (Barcelona, Madrid, Tenerife) and Hungary (Budapest); in Asia, in Indonesia (Bogor) and Singapore; in South America, in Brazil (Recife); in North America, in Canada (Toronto) and the USA (Atlanta, Berkeley, Duke, Harvard, Los Angeles, Minnesota, Nebraska, and Stanford), and finally in Australia-Oceania, in New Zealand (Auckland, Christchurch, Wellington).

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 2023, the following institutions should be mentioned, among others: Centre for Companion Animal Welfare at the University of Copenhagen, Panel on Planetary Thinking at Justus Liebig University Giessen (collaboration for conference organisation of the Minding Animals Germany Symposium 2023), University of Potsdam, Institute for Technology-Theology-Natural Sciences at LMU Munich, Faculty of Veterinary Medicine at the University of Zagreb or the Faculty of Veterinary Medicine at the University of Skopje, Swiss National Science Foundation (within the framework of NRP 79: Advancing 3R).

## Collaborations at the level of networks and societies

In times of the so-called replication crisis, collaborations with other institutes are becoming increasingly important. In the field of Comparative Cognition Research, several employees participated in the so-called Many initiatives. Christoph Völter was involved in the founding of ManyPrimates, Megan Lambert in the founding of ManyBirds, and Ludwig Huber in the founding of ManyDogs. In the latter, 20 laboratories worldwide conducted an identical study on dogs, allowing over 700 dogs to be tested in the same manner in the end. Ludwig Huber is also involved in the umbrella organisation ManyManys, as well as in the CIFAR project group Reality under threat: Neural, individual and societal adjudication of truth and trust.

As mentioned in the section Committee Work, engagement in national and international societies is very important for the Comparative Medicine team and is often associated with leadership roles such as board chairpersons, committee chairs, or task force leaders. This results in valuable networks that also contribute to research collaborations. In Austria, the key partners include the Danube Allergy Research Cluster led by Karl Landsteiner University Krems, Lower Austria, and the Immunology Research Cluster at the Medical University of Vienna. Engagement in the Austrian Society for Allergology and Immunology has also been an important tool for networking within the Austrian allergy scene for years. Internationally, the team collaborates at various levels with the European Academy of Allergology and Clinical Immunology, as well as the European Federation of Immunological Societies.

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. In 2023, for example, Svenja Springer was a founding member of the Animal-Human Relationship working group of the German Society for Sociology. Other networks and societies she has been involved with include Minding Animals Germany/International, European Society for Agricultural and Food Ethics (EurSafe), NormaCtivity, Evolution of Normativity Network, Harvard-Yale Animal Ethics Faculty Seminar, Interspecies Rights Initiative (IRI), Vetart Kunstforum, German Society for Philosophy, and the Centre for Companion Animal Welfare (University of Copenhagen, Denmark).

## Visiting researchers at the Messerli Research Institute

As part of Professor Alex Taylor's ERC Consolidator project, Postdoc Millie Johnston and PhD candidate Evan Shair spent six months in 2023 at the Kea Lab at Haidhof conducting tests to estimate the probability assessment of Kea. These studies will continue for several more years. In 2023, Jeroen van der Aa was a visiting scientist at the Goffin Lab. He is a PhD student at the University of Vienna under Professor Fitch, studying rhythmic swaying to music in Goffin cockatoos.

The following guest researchers worked in the Unit of Ethics and Human-Animal Studies in 2023: Anne Quain, Konstantin Deininger, Katharina Dieck, Konstantin Eckl, Ruadhán J. Flynn, Martin Huth, Erich Linder, Mariessa Long, Susana Monsó, Carlo Salzani, Birte Wrage, Marc Bubeck, Sarah Zwicky, Andreas Aigner, Dennis Papadopoulos, Zipporah Weisberg and Johanna Karg.



In 2023, Anne Quain was a visiting researcher at the Messerli Research Institute and one of the keynote speakers at the Veterinary Ethics Conference.



Farewell to Yuri Kawaguchi.

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# Society & Public Relations

The Institute contributes to the promotion of the 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 paper on tool sets in cockatoos by Antonio Osuna-Mascaro, another on food dunking in cockatoos by Jeroen Zewald, and the first paper on innovative problem-solving in caracara falcons by Katie Harrington made headlines around the world, with dozens of reports in prestigious journals such as the *New York Times*, the *Guardian*, *National Geographic*, CNN, BBC, *Telegraph*, *Smithsonian*, *Science*, and *Nature*.

Additionally, in October, the FWF showcased Alice Auersperg's cockatoo research in a comprehensive video portrait on their website Scilog.

Theresa Rössler presented cognition research for the science programme Overestimated Intelligence at the Linz Zoo. Alice Auersperg also gave a public lecture in Lofer as part of the Austrian Academy of Sciences' initiative Science for All and participated in a panel discussion with Markus Hengstschläger and Conny Kreuter for the Kurier TV programme "Spontaneously Asked."

Ludwig Huber and his team brought research on perspective-taking in dogs into Austrian living rooms in a half-hour television documentary by P.M. Wissen on Servus TV.



Ludwig Huber giving a lecture as part of Austria Reads at the University Library Leoben.

Just as pollen returns every day, the Comparative Medicine team receives press inquiries about allergies. In addition to print and online media, Erika Jensen-Jarolim was also an expert on the Barbara Karlich Show on 3 April 2023, discussing Finally Allergy-Free! She was also interviewed by Hanno Settele on the prime-time programme Dok1 about allergies on 24 March 2023, which received significant audience feedback.



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Erika Jensen-Jarolim in conversation with Hanno Settele.

© Ludwig Huber/Vetmeduni

© ORF



In August, in cooperation with the European Foundation for Allergy Research (ECARF) and Charité, Berlin, Germany, a press release titled Everything for the Cats!? Current Insights into the Management of Cat Allergy was issued to mark a publication.

Isabella Pali achieved significant success in October by initiating an active press release on One Health: Clinical Care, Research, and Conferences Must Also Go 'Green'. This underscores her strong commitment to the One Health concept.



The work of the Unit of Ethics of Human-Animal Relationships was once again a topic of discussion in influential national and international media outlets in 2023. For example, Svenja Springer was a guest on the television show Café PULS, where she discussed the findings of the study Do people really care less about their cats than about their dogs? Additionally, Science ORF.at provided detailed coverage of this study.



Judith Benz-Schwarzburg gave interviews on various topics, including: On the question of whether animals need fundamental rights in Kulturzeit (ZDF); on "Animal Names in the Zoo" in ZIB3 (ORF); on "We talk animals we eat, dumb" in *Der Standard*; on "Meat Eaters vs. Vegetarians: Why Eating Habits Trigger Such Emotions" in *Kurier*; on "When Nature Strikes (or Doesn't)" in *Kleine Zeitung*; on "Cognition, Mind, Body: Dogs Help Research Diseases" in *GEO*.

Further media outlets that reported on the research of the Unit of Ethics include the podcasts *Erklär mir die Welt – Deepdive*, *Vetivolution*, the *Tierärzterverlag-Podcast*, *Der Stoiker-Podcast*, *Die Presse*, and the *Salzburger Nachrichten*.



Herwig Grimm (right) together with his interview partner Andreas Sator for the podcast „Explain the World to Me“ with the question: Is it okay for me to eat animals, Herwig Grimm?

© Andreas Sator/Erklär mir die Welt

# Events

Members of the Comparative Cognition Research group participated in numerous events and also contributed to their organisation this year.

Alice Auersperg took part in the Winter Meeting of the Association for the Study of Animal Behaviour (ASAB) in Edinburgh and the 15th anniversary celebration of the Young Academy of the Austrian Academy of Sciences.

Raoul Schwing and Amelia Wein-Schwing organised a symposium on culture and social learning in animals at the Behavior 2023 conference in Bielefeld.

Zsófia Virányi was involved in organising the ARED Workshop in Vienna, with the opening event held at the Diplomatic Academy Vienna in collaboration with the Club of Vienna (with a public keynote lecture by Ludwig Huber), and the ARED Practitioner Workshop Comparative Cognition at the University of Stirling (UK).



Alice Auersperg gives a lecture on her Goffin Cockatoo research.



International participants of the ARED Workshop.



Ludwig Huber presents on The Rational Animal at the Diplomatic Academy Vienna.

The Comparative Medicine team regularly participates in national and international events. For example, Erika Jensen-Jarolim and Franziska Roth-Walter were part of the scientific faculty at the Winter School of the Immunology Section of the European Academy of Allergology and Clinical Immunology.



The Winter School Faculty at the legendary team building event.

Isabella Pali organised the successful Go Green! webinar series. Together with Franziska Roth-Walter, she coordinated the EAACI World Food Day in webinar format on 16 October 2023.

Erika Jensen-Jarolim also participated as an organiser and moderator in several medical education events, including a webinar series in collaboration between



the Austrian Society of Allergology and Immunology (ÖGAI) and the Doctors' Association of German Allergologists (AeDA).

Following her keynote at the Georg Raika Symposium of the International Society of Atopic Dermatitis (ISAD) in Gdansk, Poland, on the topic Solidarity for Atopic Dermatitis, Erika Jensen-Jarolim had the opportunity to personally meet the Polish politician and Nobel Peace Prize laureate Lech Walesa.



© isad.org

Erika Jensen-Jarolim and Nobel Peace Prize laureate Lech Walesa.

From 27 to 29 September 2023, the Ethics Unit (led by Svenja Springer) organised the international Veterinary Ethics Conference 2023 at the Vetmeduni. Anne Quain, Sabine Salloch, Peter Sandøe, and Sean Wensley delivered keynote speeches on current research findings and new perspectives in veterinary medical ethics. In six workshops and over 40 presentations, scientists from America, Europe, Asia, and Australia exchanged ideas on ethically relevant issues at the interface between theory and practice.



© Thomas Suchanek/Vetmeduni

Herwig Grimm opens the Veterinary Ethics Conference 2023 in the auditorium of the Vetmeduni.

From 22 to 24 February 2023, the concluding conference of the FWF project Morality in Animals (PI: Judith Benz-Schwarzburg) took place. The conference brought together internationally renowned researchers such as Lori Gruen, Kristin Andrews, and Mark Rowlands as keynote speakers, providing insights into the current state of research on normativity in animals. In three blocks, abilities such as empathy or care in the animal kingdom were discussed from the perspectives of different theories, highlighting their challenges and consequences. The discussions also addressed concrete practices, such as our treatment of rats in research, pigs in factory farming, or elephants in the wild.



© Erich Linde/Vetmeduni

The speakers at the Morality in Animals conference.

The Minding Animals Germany Symposium, titled Animals - Humans - Future, was organised by Judith Benz-Schwarzburg (current representative of Minding Animals Germany) in cooperation with the Panel on Planetary Thinking at the University of Giessen on 6 and 7 October 2023. The conference was interdisciplinary and transdisciplinary, attracting scientists, artists, and activists alike. Discussions revolved around topics such as "utility" animals and categorisation, ethics and health, pedagogy, and coexistence, as well as culture and literature in their respective relationships to animals.



# Infrastructure

## Air conditioning of the Clever Dog Lab

Since research at the Clever Dog Lab is highly committed to animal welfare but cannot be suspended for extended periods, air conditioning units were installed in all testing rooms before the first heatwave of 2023. These units now ensure comfortable temperatures for the dogs, allowing them to feel comfortable even on hot summer days and facilitating measurements on the eye tracker (as the dogs do not pant).



The air conditioning system allows work to continue at the Clever Dog Lab even on hot summer days.

## New dog testing area

The area previously used for outdoor testing until 2022 was needed for the construction of the new Mouse House, necessitating a relocation. A new area was found in close proximity to the Messerli Building and fenced off professionally. Tests requiring ample space or those intended to take place in a natural environment can now be conducted there.



## Feed Platforms on Tanimbar

In order to film the feeding techniques of the Goffin Cockatoos in more detail, the field team of the Goffin Lab (Mark O'Hara and Bernika Mioduszevska) recently developed and constructed eight raisable feed platforms in observation areas on Tanimbar. The platforms can be equipped with motion detection cameras and baited easily. The birds accepted the platforms quickly and visited them as part of their natural food searches. We are optimistic that the platforms represent a non-invasive and relatively naturalistic method to attract wild birds to a standardised, monitored location on a reliable basis. In addition, various minor repairs were carried out at the Goffin aviary in Austria.



Mark O'Hara fills the platform with food.

### Update Kea-Touchscreen

Since November 2023, the Kea Lab has been able to conduct experiments on the touchscreen using a newly built version of the experimental computer with infrared detection. The system, developed by Peter Füreder and built in collaboration with Markus Fitzka, is state-of-the-art and uses a specially designed program (Peter Helf). With this setup, complex questions about stimulus discrimination and pattern recognition can once again be posed to the keas.

### Workshop with 3D printer

After some initial difficulties, the Comparative Cognition Research workshop has moved successfully from a converted food storage area to the large precision engineering workshop at the Vetmeduni. This new workshop meets the latest occupational health and safety standards with sufficient window space, air conditioning, escape routes, and technical infrastructure. With the acquisition of a 3D printer and appropriate computer workstations, our technicians can produce small components for various systems and devices in-house, quickly, precisely, and cost-effectively.

### Safety first

Laboratories are among the most hazardous and toxic places. Therefore, in both Comparative Medicine laboratories, quality management and regular safety training sessions are important topics. For instance, a safety training session was conducted on 22 February 2023, under the leadership of Isabella Pali.



© Erika Jensen-Jarolim

Safety training in the CompMed laboratory with practical exercises.



© Karin Bayer/Vetmeduni

Markus Fitzka is working with the new 3D printer.



# Social Events



© Jennifer Bentlage/Vetmeduni



© Ludwig Huber/Vetmeduni



© Berenika Mioduszewska/Vetmeduni



© Berenika Mioduszewska/Vetmeduni

Our team-building event in 2023 took place in the Danube wetlands in beautiful weather. A ranger team from the Danube Wetlands National Park accompanied us, and we were able to gather some exciting information.



© Karin Bayer/Vetmeduni



© Karin Bayer/Vetmeduni

Traditionally, the Comparative Medicine team invited everyone to enjoy some punch together.





© Jennifer Colbourne/Vetmeduni

In 2023, Messerli PhD students Jennifer Colbourne and Elisabeth Suwanchieff organised 22 2weekly ParCor (Parrot-Corvid) Socials for all PhD students and postdocs from the Goffin and Kea Labs at the MRIs and the Corvid Labs at the University of Vienna. These gatherings took place every Friday at a pub with a fitting bird name (such as Käutchen, Krah Krah, Schwarzer Rabe, Wildgans). Additionally, the first ParCor meeting retreat with the theme Ravens was held in Grünau im Almtal this year. In addition to scientific exchange, participants found time for a visit to the Grünau Wildlife Park, group games, and a final communal barbecue event.



© Jennifer Colbourne/Vetmeduni

Students from our joint bird labs were also represented together at the Pride Parade in Vienna this year.



© Heidelinde Wanas/Vetmeduni

The Goffin Lab gathered again this summer for a barbecue at the home of animal caretaker Heidelinde Wanas, where her trained Kashmir goats and miniature pigs were also present.



© Karin Bayez/Vetmeduni

The Clever Dog Lab team at their summer party.



© Karin Bayez/Vetmeduni

Canine Science Forum in Budapest wouldn't be complete without socialising.

**messerli**  
Research Institute

University of Veterinary Medicine, Vienna  
Veterinaerplatz 1, 1210 Vienna, Austria  
T +43 1 25077-2681  
[messerli.office@vetmeduni.ac.at](mailto:messerli.office@vetmeduni.ac.at)  
[www.vetmeduni.ac.at/messerli](http://www.vetmeduni.ac.at/messerli)