Animal-free education and research
Smart innovations

Janine Vos
voted Female Executive of the Year

HUMANS AND ANIMALS
Healthy co-existence
Everyone has their own perception of the relationship between humans and animals. While some people associate the notion with the particular dog, cat or horse they are closest to, I think of cows. I really love those animals, no matter whether they happen to be in the cowshed, the meadow or on my plate. They’re just like a bunch of students: they all have their own personality.

Some of the visitors here at Tolakker, the Faculty of Veterinary Medicine’s teaching farm, are surprised that we’re so respectful and passionate about the animals: ‘I didn’t expect that’, they tell us. I’m always surprised when they say that. Why wouldn’t we treat the animals well?

The animal’s importance, its usefulness in the cycle, lends it value from my point of view. Soil life, which helps convert manure and other nutrients into particles that plants can absorb and use to grow, is also incredibly important. A worm in the soil obviously isn’t nearly as cute as a cow, but still. Actually, I feel passionate about all animals, not just cows; from soil life to fauna, from pets to production animals. Still, cows will always be my favourite.
Want to study porpoises in their natural habitat? Forget it. These shy animals rarely surface, and the murky North Sea waters are far from an ideal research environment. However, porpoises are a protected species and we want to find out how the population is doing. That leaves no option but to perform autopsies on beached animals, of which there are several hundred a year.

Around 50 to 100 porpoises have been carefully examined from head to tail every year since 2008 in the LIU Department of Pathobiology’s section room. This allows Dr Lonneke IJsseldijk to learn more about this small whale species and its habitat, while simultaneously attempting to establish the cause of death. Did the beached animals die of a disease, were they attacked by grey seals, poisoned by polluted seawater or caught in fishing nets? The study was commissioned by the Ministry of Agriculture, Nature and Food Quality, which is particularly interested in animal deaths as a result of human activity. While the population is doing well in terms of numbers, the porpoise is being affected by human interference.

Follow Lonneke IJsseldijk’s work on Instagram at @strandingresearch. Also check out the one-off issue of De Bruinvis (The Porpoise) at bit.ly/bruinvismagazine (in Dutch).
Alumni in the government

Four UU alumni were sworn in as ministers and state secretaries in the new government coalition earlier this year. Former Utrecht alderman Maarten van Ooijen (Sociology, 2011 and Governance and Organisation, 2015) is taking office as State Secretary for Youth and Prevention. Hanke Bruins Slot (Dutch Law and Law, Governance and Management, 2001) is leaving the Province of Utrecht to serve as Minister of the Interior and Kingdom Relations. The new Minister for Primary and Secondary Education is no stranger to The Hague; Dennis Wiersma (Public Administration and Policy, 2011) previously held a seat in the Lower House and served as outgoing State Secretary for Social Affairs and Employment. His fellow-alumnus Robbert Dijkgraaf (Physics, 1989), on the other hand, will be taking up the role of Minister of Education, Culture and Science without any prior political experience. It is worth noting that Sigrid Kaag (Minister of Finance) also attended our university for a short time, where she started studying Arabic language and philology.

An enormous contribution to science

Despite measuring a mere 1 mm in length and 80 μm in diameter, the tiny C. elegans worm has made an enormous contribution to science. No other animal has taught us so much about genetics and other cellular processes. The worms provide ideal research material because they reproduce at lightning speed and mutate easily. They are also transparent, making these mutations easy to observe. Professor Mike Boxem used the worms in recent studies on the development of cataracts and ALS in human patients. Thank you for your contribution, C. elegans!

A donor card for your pet

You can choose to donate your pet to science after its death. The animal donor card enables pet owners to donate their pets for anatomical and clinical education at Utrecht University. This gives students the opportunity to learn what animals look like from the inside and practice clinical and surgical procedures without the need for laboratory animals. Contact your veterinary clinic to find out if it is affiliated with the animal donor card programme and learn whether your pet is suitable for donation.

The Dunnock regularly pops out to cheat with her neighbour

Behavioural biologist Claudia Vinke (Biology 1992) on the love life of animals. Watch the lecture 'Can animals fall in love?' here: bit.ly/animalsinlove

Support jouw universiteit

Philanthropic donations play an increasingly important role in enabling groundbreaking research at universities. The Utrecht University Fund supports research and education at our university through the contributions of our many alumni and donors. Despite being the oldest university fund in the country, it certainly isn’t the only one: every Dutch university has its own fund. These funds have now joined forces in an effort to generate attention and financial support for the questions being researched at Dutch universities.

MINUSCULE WORM

An enormous contribution to science

Despite measuring a mere 1 mm in length and 80 μm in diameter, the tiny C. elegans worm has made an enormous contribution to science. No other animal has taught us so much about genetics and other cellular processes. The worms provide ideal research material because they reproduce at lightning speed and mutate easily. They are also transparent, making these mutations easy to observe. Professor Mike Boxem used the worms in recent studies on the development of cataracts and ALS in human patients. Thank you for your contribution, C. elegans!

CRUELTY-FREE

A donor card for your pet

You can choose to donate your pet to science after its death. The animal donor card enables pet owners to donate their pets for anatomical and clinical education at Utrecht University. This gives students the opportunity to learn what animals look like from the inside and practice clinical and surgical procedures without the need for laboratory animals. Contact your veterinary clinic to find out if it is affiliated with the animal donor card programme and learn whether your pet is suitable for donation.

For details, see uu.nl/nn/nn-animals-donor-card-are-bubbling-up

CROOKED WORM

An enormous contribution to science

Despite measuring a mere 1 mm in length and 80 μm in diameter, the tiny C. elegans worm has made an enormous contribution to science. No other animal has taught us so much about genetics and other cellular processes. The worms provide ideal research material because they reproduce at lightning speed and mutate easily. They are also transparent, making these mutations easy to observe. Professor Mike Boxem used the worms in recent studies on the development of cataracts and ALS in human patients. Thank you for your contribution, C. elegans!

CRUELTY-FREE

A donor card for your pet

You can choose to donate your pet to science after its death. The animal donor card enables pet owners to donate their pets for anatomical and clinical education at Utrecht University. This gives students the opportunity to learn what animals look like from the inside and practice clinical and surgical procedures without the need for laboratory animals. Contact your veterinary clinic to find out if it is affiliated with the animal donor card programme and learn whether your pet is suitable for donation.

For details, see uu.nl/nn/nn-animals-donor-card-are-bubbling-up

HOE VOORKOM JE DAT ZEEDIEREN STIKKEN IN ONZE PLASTIC SOEP?

Want to help facilitate research?

How do we prevent marine animals from suffocating in our plastic soup? You may have seen questions like this in a series of recent ads in national newspapers, social media platforms and radio commercials. Philanthropic donations play an increasingly important role in enabling groundbreaking research at universities. The Utrecht University Fund supports research and education at our university through the contributions of our many alumni and donors. Despite being the oldest university fund in the country, it certainly isn’t the only one: every Dutch university has its own fund. These funds have now joined forces in an effort to generate attention and financial support for the questions being researched at Dutch universities.

Want to know more or contribute to UU’s research on plastic-free oceans? Visit uu.nl/doneren
The Netherlands' first artificial heart

Doctors at UMC Utrecht celebrated a very special milestone in November 2021, as they successfully implanted the very first artificial heart in our country’s history. The patient in question suffered from severe heart failure, and was given an artificial heart made of plastic and biological materials that replaced his entire heart function. He is now being monitored to assess the safety, efficacy and durability of the new heart.

Find out more about this unique medical milestone: umcutrecht.nl/nieuws/eerste-kunsthart-in-nederland

Marc de Beyer
doctorate in Art History (2002), has been appointed the new director of Teylers Museum in Haarlem. He previously served as director of Museum Gouda and curator at Museum Catharijneconvent.

Simon Vroemen
PhD in Biochemistry (1997), joined the executive board of Nederlandse Aardolie Maatschappij (a Shell subsidiary).

Eva González Pérez
Dutch law (2000) was voted most influential woman of the year 2021 by Opzij magazine. She exposed the childcare benefit scandal in 2019.

Sybren Bosch
Master’s in Sustainable development (2015) was appointed co-owner at the Copper8 sustainability agency.

Bert Wijbenga-van Nieuwenhuizen
doctorate in Governance (1999) has been appointed Mayor of Vlaardingen. He previously served as alderman for the municipality of Rotterdam.

Kathalijne Visser-Riedstra
PhD in Veterinary Medicine (2002) was inaugurated as professor of Human Animal Interactions at Aeres University of Applied Sciences in Dronten.

Karin van Baardwijk
doctorate in Dutch law (2003) and doctorate in Economics (2003) has been appointed CEO of Robeco.

Robert Crince le Roy
doctorate in Dutch law (1989) has been Dean of the Netherlands Bar Association since 1 January 2022.

José van Dijck
doctorate in Dutch (1985) received an NWO Spinoza Prize. Van Dijck is Professor of Media Studies at Utrecht University and board member of the Utrecht University Fund.

Sjon Hartman
Bachelor’s in Biology (2013). Master’s in Environmental Biology (2015) and PhD in Biology (2020) has been named junior Professor at the University of Freiburg.

Want to be ‘named’? Email us your new position at alumni@uu.nl. Who knows? You could see yourself in the next edition of Illuster, or be named Alumnus of the Month. Every month we announce their identity on LinkedIn (Utrecht University), Facebook (Alumni Utrecht), Instagram and Twitter (both @AlumniUU).

Utrecht University is proud of each and every one of its graduates, and alumni are an important part of Utrecht University’s academic community. But where do they all end up? In this section, Illuster presents some major appointments from the last six months.

TRIJN

A legendary heroine from Utrecht’s history: Trijn van Leemput. Who still remembers her story? In the Zandweg, where the Oudegracht meets the Singel at the Van Asch van Wijckskade? With the Spaniards poised to capture Vredeborch Castle during the Eighty Years’ War, she rallied a group of women and destroyed the castle, preventing it from falling into enemy hands. Urban opera ‘Trijn’ will have its world première on 12 June in the year of Utrecht’s 900th anniversary. The performance will be held at the exact site of the historic events: city fortress Vredeborch, now home to TivoliVredenburg. Numerous Utrecht University alumni have been involved in organising the event, and the music will be performed by the Utrechtisch Studenten Concert.

Performances are scheduled for 12, 18 and 19 June. Visit stadsschouwburgtrijn.nl (in Dutch) for details and maps.

Animals at Utrecht Science Park

This badger was photographed by students and researchers from the UU’s department of Ecology and Biodiversity, who have been working to catalogue wildlife at the Utrecht Science Park for some time now. They have found as many as forty animal species so far. The level of biodiversity at Utrecht Science Park, which is surrounded by greenery and nature on three sides, has deteriorated over time. The university will be investing more in biodiversity in order to address this issue. For example, 6,000 indigenous trees and shrubs were planted this winter. This marks Utrecht University’s contribution to improving the quality of the existing natural environment and restoring the connection with Amelisweerd.

Want to learn more about biodiversity? Browse the online dossier at uu.nl/dossiers

Biodiversity

Marc de Beyer
doctorate in Art History (2002), has been appointed the new director of Teylers Museum in Haarlem. He previously served as director of Museum Gouda and curator at Museum Catharijneconvent.

Simon Vroemen
PhD in Biochemistry (1997), joined the executive board of Nederlandse Aardolie Maatschappij (a Shell subsidiary).

Eva González Pérez
Dutch law (2000) was voted most influential woman of the year 2021 by Opzij magazine. She exposed the childcare benefit scandal in 2019.

Sybren Bosch
Master’s in Sustainable development (2015) was appointed co-owner at the Copper8 sustainability agency.

Bert Wijbenga-van Nieuwenhuizen
doctorate in Governance (1999) has been appointed Mayor of Vlaardingen. He previously served as alderman for the municipality of Rotterdam.

Kathalijne Visser-Riedstra
PhD in Veterinary Medicine (2002) was inaugurated as professor of Human Animal Interactions at Aeres University of Applied Sciences in Dronten.

Karin van Baardwijk
doctorate in Dutch law (2003) and doctorate in Economics (2003) has been appointed CEO of Robeco.

Robert Crince le Roy
doctorate in Dutch law (1989) has been Dean of the Netherlands Bar Association since 1 January 2022.

José van Dijck
PhD in Dutch law (2000) was voted most influential woman of the year 2021 by Opzij magazine. She exposed the childcare benefit scandal in 2019.

Sybren Bosch
Master’s in Sustainable development (2015) was appointed co-owner at the Copper8 sustainability agency.

Bert Wijbenga-van Nieuwenhuizen
doctorate in Governance (1999) has been appointed Mayor of Vlaardingen. He previously served as alderman for the municipality of Rotterdam.

Kathalijne Visser-Riedstra
PhD in Veterinary Medicine (2002) was inaugurated as professor of Human Animal Interactions at Aeres University of Applied Sciences in Dronten.

Karin van Baardwijk
PhD in Biochemistry (1997), joined the executive board of Nederlandse Aardolie Maatschappij (a Shell subsidiary).

Eva González Pérez
Dutch law (2000) was voted most influential woman of the year 2021 by Opzij magazine. She exposed the childcare benefit scandal in 2019.

Sybren Bosch
Master’s in Sustainable development (2015) was appointed co-owner at the Copper8 sustainability agency.

Bert Wijbenga-van Nieuwenhuizen
doctorate in Governance (1999) has been appointed Mayor of Vlaardingen. He previously served as alderman for the municipality of Rotterdam.

Kathalijne Visser-Riedstra
PhD in Veterinary Medicine (2002) was inaugurated as professor of Human Animal Interactions at Aeres University of Applied Sciences in Dronten.
Making it work

UTOMIC, for animals and people

Each year, over 45 million people worldwide die from so-called non-communicable diseases such as cancer, cardiovascular diseases, diabetes, neurological diseases, or musculoskeletal diseases. The need for research on more effective diagnostics and new treatment methods is more urgent than ever. Researchers and clinicians from the fields of veterinary and human medicine can closely collaborate on a range of projects. Inga Wolfram is responsible for the day-to-day management of UTOMIC: ‘UTOMIC offers veterinary researchers from various university medical centres, such as UMC Utrecht, the opportunity to forge unique collaborations. Researchers will also have access to state-of-the-art diagnostic and treatment facilities at the University Animal Hospital, provided in collaboration with our civil society partners and commercial stakeholders.’

One Medicine research helps to improve diagnostics and treatment for humans and animals. UTOMIC is an open academic workplace where researchers and clinicians from the fields of veterinary and human medicine can closely collaborate on a range of projects. Inga Wolfram is responsible for the day-to-day management of UTOMIC: ‘UTOMIC offers veterinary researchers from various university medical centres, such as UMC Utrecht, the opportunity to forge unique collaborations. Researchers will also have access to state-of-the-art diagnostic and treatment facilities at the University Animal Hospital, provided in collaboration with our civil society partners and commercial stakeholders.’

Reducing animal testing
Unfortunately, biomedical research into drugs and treatment methods for non-communicable diseases still relies heavily on animal testing. This involves the use of 115 million laboratory animals a year. With the establishment of UTOMIC, the Faculty of Veterinary Medicine aims to accelerate One Medicine research, help human and veterinary patients, and simultaneously reduce the need for laboratory animals.

Inga Wolfram, head of partnerships and fundraising at the Faculty of Veterinary Medicine: ‘I’ve always loved horses since I was young. You can’t lie to a horse, they’re like emotional mirrors. That can be uncomfortable, but it forces you to deeply examine your feelings.’

Bart Spee, Associate Professor and One Medicine research theme leader: ‘I would personally choose cats. They’re very anxious and sleep 80% of the day, but they are also natural-born hunters that can attack mercilessly at anytime and are basically very athletic, I’m also jealous of those qualities sometimes.’

Accelerating One Medicine research
‘UTOMIC aims to further integrate our One Medicine research with human and animal health care over the coming years’, explains One Medicine research theme leader Bart Spee. ‘The strong parallels between spontaneously occurring diseases in humans and companion animals can play a crucial role in translational research. After all, the treatment of animal patients can serve as a scientifically reliable transition between pre-clinical research and clinical applications while eliminating the need for laboratory animals such as rats and mice.’ This approach whereby we treat companion animals with chronic diseases in close cooperation with colleagues from the field of human medicine also offers several other advantages over the use of laboratory animals. Some diseases or conditions are much more common in veterinary patients than they are in humans. This allows researchers to gather more extensive data from veterinary patients than they could do from human patients in a shorter space of time. Euthanasia is now often the only option for pets with incurable diseases. Administering an experimental treatment to these veterinary patients — provided it has been proven safe in the preclinical phase — can be an important step towards developing actual medical applications. One Medicine research can accelerate human and veterinary medical innovation in several ways.

Visit www.utomic.nl for details

Why donate to UTOMIC?
‘I studied medicine in Utrecht. It was a wonderful period of my life, and I’m very grateful for that. My husband Peter and I would like to give something back,’ Joanna Schopman, a loyal supporter of the Utrecht University Fund, explains: ‘Ever since I started studying, I always thought it was strange that so many people never look beyond the boundaries of their own discipline. You can learn so much if you’re willing to be inquisitive and talk to each other. The UTOMIC project helps to facilitate such interdisciplinary collaborations. I think the initiative can lead to some really interesting collaborations and it is closely following the project and the research they’re doing.’

‘We also donate to large national charities, but it’s usually harder to tell how they’re using the money. We try to find smaller projects that we really feel strongly about. The kind of things where you feel a bit more engaged with the results of the steps towards it. Pretty much all Utrecht University Fund projects have that in common.’

For more information on contributing to our research, please visit uu.nl/en/organisation/donate

You can help out too!
You can also contribute to more effective research on chronic diseases in humans and animals. UTOMIC is one of the designated causes for the Utrecht University Fund’s annual Fundraising the Future campaign. Visit uu.nl/en/organisation/donate/pay-it-forward.
Monkeys and children display similar behaviour

A biologist studying monkeys and an educationalist researching preschoolers and first-graders decided to join forces. As it turned out, their partnership raised a few eyebrows: surely children and monkeys aren’t the same? Professor of biology Liesbeth Sterck and Assistant Professor of Orthopedagogy Marjolijn Vermande explain their collaboration.

People live in groups, but can have different levels of status within that group. Vermande, originally trained as a developmental psychologist: ‘Some children in a school class have a higher status than others. We assess their level of popularity within the group and their ability to obtain what we refer to as resources: the best toys, the nicest or coolest friends, or the most attention. The question is: how does a child attain this status? As it turns out, they can achieve this by displaying certain behaviours: aggressive behaviour, for example, but also by being nice or friendly. There is also a third way: inspiring others to follow your example.’

‘Monkeys are social animals’, Sterck continues. ‘The behaviours you observe in primate colonies are quite similar to those exhibited by children. Monkeys also display the types of behaviour described by Marjolijn in order to acquire a certain status in the group; in their case, this takes the form of aggression, sex or grooming. Those common behaviours inspired us to collaborate and apply for grants for our joint research. People are also primates. Humans also apply many of the social principles observed in apes. That common ground formed the basis for our collaboration: How do school kids and monkeys attain status within their respective social groups?’\n
The two researchers’ joint study is based on observations, behavioural experiments and — in the case of the children — questionnaires and peer assessments. ‘Aggressive or friendly behaviour is very visible in primates such as chimpanzees or macaques,’ explains Sterck, who is studying a colony of macaques at the Biomedical Primate Research Centre in Rijswijk. ‘It’s obvious that there are leaders and friendships within these colonies, but we’re still working to find out precisely how it all works: how do the monkeys combine dominance and friendship to get their way? These are basically the same processes Marjolijn is researching at school.’

Vermande continues: ‘Our research suggests that status can be most effectively attained by flexibly combining aggressive behaviour — getting ahead — with socially acceptable behaviour — getting along with and inspiring others — depending on the situation.’ Animal research increasingly suggests that status can be achieved through both aggressive behaviour — are they arguing and fighting with other group members? — and friendly behaviour — do they have any friends in the group?’

Dual interview

Marjolijn Vermande (Faculty of Social and Behavioural Sciences): ‘My kids had a hamster at one point. It didn’t live to be very old. When it got sick, we even had it operated at the Faculty of Veterinary Medicine, which probably made it the most expensive hamster ever. I’m personally really into hedgehogs. We have a few living in our garden, and they start scurrying around in the evening. We decided to build a hedgehog hotel to help them make it through the winter.’

People live in groups, but can have different levels of status within that group. Vermande, originally trained as a developmental psychologist: ‘Some children in a school class have a higher status than others. We assess their level of popularity within the group and their ability to obtain what we refer to as resources: the best toys, the nicest or coolest friends, or the most attention. The question is: how does a child attain this status? As it turns out, they can achieve this by displaying certain behaviours: aggressive behaviour, for example, but also by being nice or friendly. There is also a third way: inspiring others to follow your example.’

‘Monkeys are social animals’, Sterck continues. ‘The behaviours you observe in primate colonies are quite similar to those exhibited by children. Monkeys also display the types of behaviour described by Marjolijn in order to acquire a certain status in the group; in their case, this takes the form of aggression, sex or grooming. Those common behaviours inspired us to collaborate and apply for grants for our joint research. People are also primates. Humans also apply many of the social principles observed in apes. That common ground formed the basis for our collaboration: How do school kids and monkeys attain status within their respective social groups?’

The two researchers’ joint study is based on observations, behavioural experiments and — in the case of the children — questionnaires and peer assessments. ‘Aggressive or friendly behaviour is very visible in primates such as chimpanzees or macaques,’ explains Sterck, who is studying a colony of macaques at the Biomedical Primate Research Centre in Rijswijk. ‘It’s obvious that there are leaders and friendships within these colonies, but we’re still working to find out precisely how it all works: how do the monkeys combine dominance and friendship to get their way? These are basically the same processes Marjolijn is researching at school.’

Vermande continues: ‘Our research suggests that status can be most effectively attained by flexibly combining aggressive behaviour — getting ahead — with socially acceptable behaviour — getting along with and inspiring others — depending on the situation.’ Animal research increasingly suggests that status can be achieved through both aggressive behaviour — are they arguing and fighting with other group members? — and friendly behaviour — do they have any friends in the group?’

Marjolijn Vermande (Faculty of Social and Behavioural Sciences): ‘My kids had a hamster at one point. It didn’t live to be very old. When it got sick, we even had it operated at the Faculty of Veterinary Medicine, which probably made it the most expensive hamster ever. I’m personally really into hedgehogs. We have a few living in our garden, and they start scurrying around in the evening. We decided to build a hedgehog hotel to help them make it through the winter.’

People live in groups, but can have different levels of status within that group. Vermande, originally trained as a developmental psychologist: ‘Some children in a school class have a higher status than others. We assess their level of popularity within the group and their ability to obtain what we refer to as resources: the best toys, the nicest or coolest friends, or the most attention. The question is: how does a child attain this status? As it turns out, they can achieve this by displaying certain behaviours: aggressive behaviour, for example, but also by being nice or friendly. There is also a third way: inspiring others to follow your example.’

‘Monkeys are social animals’, Sterck continues. ‘The behaviours you observe in primate colonies are quite similar to those exhibited by children. Monkeys also display the types of behaviour described by Marjolijn in order to acquire a certain status in the group; in their case, this takes the form of aggression, sex or grooming. Those common behaviours inspired us to collaborate and apply for grants for our joint research. People are also primates. Humans also apply many of the social principles observed in apes. That common ground formed the basis for our collaboration: How do school kids and monkeys attain status within their respective social groups?’

Vermande continues: ‘Our research suggests that status can be most effectively attained by flexibly combining aggressive behaviour — getting ahead — with socially acceptable behaviour — getting along with and inspiring others — depending on the situation.’ Animal research increasingly suggests that status can be achieved through both aggressive behaviour — are they arguing and fighting with other group members? — and friendly behaviour — do they have any friends in the group?’
Various studies show that relationships are essential to the well-being of both humans and monkeys.

Sterck adds: “Unfortunately, that sort of “follow my lead” behaviour is hard to measure in monkeys”, Sterck explains. So what have the goldfish taught her?

Sterck: “In my case, that kind of knowledge can be really helpful in areas like animal welfare. Do those macaques have a companion in their group? Various studies show that relationships are essential to the well-being of both humans and monkeys. For example, people need to be able to share things fairly if they are to thrive. But what about monkeys? They’ll also share with others when left to their own devices, but especially those they are close to, such as relatives. That illustrates the importance of relationships among group animals.

Vermande: “Let me give you another example. Bullying obviously isn’t considered good behaviour. However, we have found that children who bully also use kind and friendly behaviour to get their way. What’s more, the perpetrators themselves hardly suffer any negative consequences as a result of their bullying behaviour. They may not fit in that well with the group, but they feel socially accepted and don’t suffer from the same feelings of anxiety or depression as their victims. However, their behaviour does bring them a lot of benefits in terms of status. Much like biologists, that leads us to conclude: it has benefits and no drawbacks, so why stop? The social climate within the group is also important. If the bully is a dominant force in the group, bullying is more likely to be tolerated. These kinds of insights offer starting points for anti-bullying interventions.”

Sterck continues: “De-escalation is also a good example. Monkeys will reconcile after a conflict, but children with behavioural problems aren’t particularly good at that. They tend to get stuck in a “he said, she said” loop. “He started it, no she started it.” Most educators — parents and teachers — tend to address this kind of conflict by breaking them up. But that might actually not be the best approach. Maybe it’s actually more effective to help children de-escalate and teach them that you can also get what you want by being nice. For example — Marjolijn and I are currently looking into this — you could get them to work together as part of a game.”

That still leaves the question: can you really compare children to monkeys? Is that even ethically acceptable? Surely some people will object to an approach that diminishes the uniqueness or even superiority of human beings? Sterck strongly disagrees: “Humans are a kind of animal with the capacity for thought. However, we don’t always reflect on our actions; like animals, we often act intuitively. So we really shouldn’t overestimate ourselves. We’re not that special.”

We’re overestimating ourselves if we believe that humans are superior. We’re just not that unique or special.

The University Museum is modernising

The Utrecht University Museum (UMU) is modernising itself in an effort to become the Netherlands’ leading research museum. A family-oriented museum where visitors can actively explore Utrecht University’s past and present scientific research. There’s a lot to see and do in the new UMU. From taxidermy animals to a heart-lung machine and from fossils to the Van Leeuwenhoek microscope. Visitors can explore the latest scientific discoveries in all five new galleries. The new museum will also feature a new gallery dedicated to humans and animals, where visitors can expect to run into Liesbeth Sterck and Marjolein Vermande. The new gallery offers the opportunity to follow in Sterck’s and Vermande’s footsteps and explore human and animal behaviour. Visitors can take on the role of behavioural researchers in the interactive “Observed Behaviour” exhibit. How do monkeys and humans get their way? Visitors are shown a series of videos and invited to identify prosocial (kind) and anti-social and aggressive (unpleasant) behaviour. Next, it’s time to take things a step further at the research table and fill in all the behaviours they observe in a so-called ethogram.

The modernised UMU will open its doors in 2023. The Utrecht University Fund is contributing to the museum’s modernisation and facilitates grant applications to other wealth funds.
Same degree ...

Annika van Rosmalen (37)

Degree programme: Biology
Work: pharma and digital health business developer at TNO

I decided to study biology because I was interested in the origin of diseases and their potential solutions. I imagined I would end up developing cancer treatments. But I noticed I didn’t really enjoy being in the lab during my Master’s. I found myself drawn to innovations and products that were the result of research, so I decided to do a minor in the Fundamentals of Business and Economics aimed at science students. I used to work a lot with small biotech companies in some of my previous jobs. I love my current job as a pharma and digital health business developer at TNO because I get to work on innovations at the intersection of biology and data: those kinds of innovations will ultimately shape the future of medicine development. How can our research help pharma companies harness patient data to develop better medicines? Patients’ direct input is crucial for us in that respect. Although I personally wouldn’t want to be developing medicines any more, I think it’s great to be able to contribute my own expertise to the complex development process.

... andere carrière

Arjen de Groot (37)

Degree programme: Biology
Work: ecological genetics researcher at Wageningen Environmental Research

I started studying Biology with the notion of ‘doing something with animals’, like studying primate behaviour. I was eventually drawn to the subject of ecology because of my interest in nature conservation. Still, it was always pretty obvious that I wanted to become a researcher: I really love going out into the field, gathering data and sifting through information. I enjoyed my Master’s placements in Utrecht so much that I stayed on to do PhD research. I was researching the distribution of ferns in the field, but I had to learn DNA techniques from colleagues in London and Helsinki to determine their origins. I still love doing research, but I wanted something more practically relevant. I currently manage an ecological DNA laboratory in Wageningen, where we address concrete questions from policy-makers and nature managers. We make sure that they can understand and apply the outcomes, which is obviously crucial. I’ve joined forces with Utrecht University again for a project on the Roman Limes; we’re using DNA from archaeological digs to identify food residues and diseases from that era. The only other degree programme I was considering at the time was History, so everything is kind of coming together now.
A balance between the head and the heart

That’s you, Mum’, whispers Janine Vos’s daughter as she puts a hand on her mother’s leg. It’s only then that Vos realises Jet Bussemaker is actually describing her. She has been named Female Executive of the Year 2021.

“I felt very surreal”, Rabobank’s Chief Human Resources Officer and Managing Board member recalls. “It was a great night. COVID restrictions had been eased enough to organise a get-together and there was this magical energy in the air. The generation of women before me had to fight for a few scarce positions, but my generation is the first to be able to go to university. My father realised that a university education would open up a lot of new doors, so he always encouraged me to study as much as I could and get good grades. I realised I wanted to have an impact on the world at a young age, and I’m pretty sure that was partly thanks to him. While she still had no idea what kind of impact that would be at the time, she knew she wanted to study political science or history. Wary of the high unemployment rate at the time, her parents preferred to see her choose economics or law. She opted for the latter, and moved to Utrecht. “It’s only now that I see how much I really learned during my studies. The way you prepare for things, how you deal with stress, and the disappointment you feel when things don’t work out. I also learned that companies don’t just focus on good grades during my time at the legal student association. They also want to know about your extracurricular activities, the network you have built up and your own personal development. I literally became an adult in Utrecht.”

An efficient day
Vos met with various companies during a recruitment day in 1996. “One of the interviews was with ABN AMRO. I attended an in-house day there. I also interviewed with KPN. Their recruiter was so good that I thought: ‘I want to work there!’”, and that’s what I ended up doing. The third interview was with a lovely guest recruiter from ING. He didn’t manage to recruit me, but I did end up marrying him.” Laughing out loud: “A job and a husband, that’s a pretty efficient day, right?” She always made the best career choices when her heart and mind were in sync. She would generally decide who to work for on the basis of her intuition. “I always went with people who gave me the feeling I could be myself. Leaders who unconsciously triggered something that helped me to grow. People who encouraged me to pursue bigger dreams and goals.

If I’m confident and I feel safe, the sky is the limit. I think that goes for everyone. When people feel seen and valued, it benefits the collective as well as the individual. That’s what I’m always striving for: happier organisations through happier people. How can we bring out each other’s strengths? According to our latest engagement scan, 86% of our staff feel they can be themselves at work. I’m really proud of that. However, that also means that 14% of our employees don’t feel that way.

“You also need to acknowledge the things you’re proud of”

I hate it when things aren’t going the way I want them to, and really have to remind myself to savour our successes.” Vos holds up a notepad. “Write memos on it every day: we need to do this better, we need to improve that. That’s common among many talented women: they tend to focus on what’s not good enough yet. Self-reflection is obviously really important, but you also need to acknowledge the things you’re proud of. And remember to dream big!”
People and animals

Healthy, sustainable coexistence

She studies the relationship between health and living environment, while his work focuses on the ethical issues surrounding the relationships between people and animals. Scientists Lidwien Smit (45) and Franck Meijboom (46) spoke to one another about the large-scale culling of mink, battery cages and a mandatory course when purchasing a pet.

awds Rosan Reusken images Ed van Rijswijk

‘Humans, animals and the living environment are inextricably connected with one another’
What do you think it will take to achieve sustainable and animal-friendly livestock farming?

M: “We must ask ourselves whether we feel that meat, dairy and eggs are important enough to justify raising and slaughtering animals. That’s something we should be clear on. The discussion regarding ideal livestock farming practices is important as well. We need a dot on the horizon. Once we have that, we can realistically consider the incremental steps we need to take in order to reach that ultimate goal.”

S: “Do you think that, at a certain point, consensus will emerge regarding that ideal?”

People and animals

‘We tend to think of animals as four-legged health hazards’

M: “So the idea is that we interview one another, right?”

S: “‘One Health is a way of looking at health in which humans, animals and the living environment are inextricably connected with one another. In recent years, for instance, I studied the health of the people who live near livestock farms.’

M: “That’s a fascinating topic.”

S: “In the Netherlands, we have the luxury of addressing and monitoring this.”

M: “In the Netherlands, we have the luxury of addressing and monitoring this.”

S: “In the Netherlands, we have the luxury of addressing and monitoring this.”

M: “A contributing factor, of course, was the House of Representatives’ previous decision to shut down Dutch mink farms in 2019, a drastic choice for both the animals and the mink farmers. I was involved in the decision thanks to my expertise on infectious diseases in livestock farming. The risks to public health weighed heavily, and animal welfare was a subordinate concern.’

M: “One such situation was deciding whether or not to cull mink due to COVID-19, a drastic choice for both the animals and the mink farmers. I was involved in the decision thanks to my expertise on infectious diseases in livestock farming. The risks to public health weighed heavily, and animal welfare was a subordinate concern.’

M: “One such situation was deciding whether or not to cull mink due to COVID-19, a drastic choice for both the animals and the mink farmers. I was involved in the decision thanks to my expertise on infectious diseases in livestock farming. The risks to public health weighed heavily, and animal welfare was a subordinate concern.’

S: “Ultimately, what tipped the scales in favour of the cull was the risk of new mutations. We didn’t take the chance, but it’s quite possible that a delta or omicron variant could have emerged here in the Netherlands. Especially because people, mink, dogs and cats all live in close proximity to one another on mink farms.’

M: “In the Netherlands, we have the luxury of addressing and monitoring this.”

S: “Yes, that is a benefit of the One Health approach. What do you think it will take to achieve sustainable and animal-friendly livestock farming?”

M: “We must ask ourselves whether we feel that meat, dairy and eggs are important enough to justify raising and slaughtering animals. That’s something we should be clear on. The discussion regarding ideal livestock farming practices is important as well. We need a dot on the horizon. Once we have that, we can realistically consider the incremental steps we need to take in order to reach that ultimate goal.”

S: “Do you think that, at a certain point, consensus will emerge regarding that ideal?”

‘Do we feel that meat, dairy and eggs are important enough to justify raising and slaughtering animals?’

It is quiet for a moment as Meijboom considers his answer. Then, slightly hesitantly: “Yes, the overall inclination is shifting. This is evident in the ‘End the Cage Age’ project, an initiative from citizens and NGOs to ban the use of cages in livestock farming. The European Parliament has adopted the ambition and new animal welfare legislation is being introduced in Europe. That would have been unthinkable twenty years ago. Back then, only a handful of animal welfare organisations were concerned with this topic.”

S: “We can see that same shift in the ban on battery cages and the push to decrease...”
Main article

People and animals

No one — including farmers — wants to return to the days of battery cages and widespread use of antibiotics. No one — including farmers — wants to return to the old days. A huge amount has been gained. Yet we are encountering ethical dilemmas as well. Because of public health concerns, we now use a minimum of antibiotics in livestock farming — which means that some sick animals no longer receive optimum treatment. What's your take on that?

M: Those are complicated considerations. Animals have intrinsic value, but we also still consider them things. A Labrador is property that can be owned and then sold to someone else when you don't want it any more. The law is very different for people: you can't sell your child on eBay, that would be illegal. More and more, we are asking ourselves if animals should be given a stronger legal position. People see an animal as more of a partner.

S: I'm curious as what you consider ideal in terms of the treatment of animals. In a perfect world, would we have animals in captivity at all?

M: That's a tough question. It can be acceptable to keep a pet, ride a horse or slaughter an animal. But we're often wrong in our assessments of what is good for animals. We have trouble looking beyond our own, human interests. In the world of purebred dogs — despite over 30 years of debate — there are still breeding lines that include unhealthy animals. Livestock farmers dock pigs' tails to keep them from biting each other's tails due to boredom, insufficient stimulation and frustration. If you ask me, that is what needs to change: we need to consider the animals' interests and prevent problems such as boredom and frustration. To me, that would be an ideal situation.

S: So it's OK to keep animals, as long as we put their interests before our own convenience or desires?

M: Exactly. In the Netherlands, you often have to demonstrate ability or understanding before being allowed to do something. Like completing driver's education and getting a licence before you can drive a car. But if you want a pet, you can just go out and get one. There are around 30 million pets in the Netherlands, but nowhere near every owner knows how to take care of their pet. Rabbits, for instance, aren't happy living alone. Many people don't know this and they buy one rabbit. Maybe there should be a mandatory course for people who want to get a pet.

Although the interview was scheduled to take an hour, Smit and Meijboom have been talking for over 90 minutes. They've gone into their lunch break. Meijboom concludes by noting how much their fields of study overlap. 'While we don't work together on a daily basis, we each have our own office and our own group, it wouldn't be such a crazy idea for us to write a research proposal together.' Smit nods in agreement. 'Maybe that's something we should pursue, yes.'

There are 30 million pets in the Netherlands, but nowhere near every owner knows how to take care of their pet.
Will this still be legal in 50 years?

Many changes occur in the way we look at the relationships between people, animals and living environments. Often, these changes also have legal implications. Criminologist Dr Daan van Uhm sees strong growth taking place in his field, Green Criminology. ‘In the last ten years, it’s been mostly younger criminologists who have increasingly focused on environmental crime. We explore not only the detriment to humans, but the damage and loss in terms of animal species or entire ecosystems as well.’

Right now, many changes are taking place in this area. ‘What is considered illegal or detrimental shifts under the influence of values and standards. We — humanity, that is — face major challenges with regard to worldwide pollution, deforestation and climate change, as well as the disappearance of protected animal species. In the 1970s, people could buy monkeys and lions at departments stores. It was a trend. Today, it’s hard for us to believe such a thing was allowed — yet it was only 50 years ago.’

Daan continues: ‘The field is quite exciting, in part because we can hardly imagine the kind of questions we’ll be dealing with in 20 or 50 years. Many kinds of damage to the environment and animals will become punishable by law: we are in the midst of a criminalisation process. Decades from now, how will we look back at today? In 50 years’ time, will primates still be kept in zoos or will that have been outlawed?’

This year was the first time that students could take the Green Criminology course taught by Daan. ‘This makes us quite progressive here in Utrecht, real pioneers within Europe. I can see it’s attracting a lot of students, and that’s good because we’re going to need some extra green criminologists in the future.’

Go to sg.uu.nl/video/2021/53/how-we-illegale-dierenhandel-stand-moedigen-to-syna-Daan-van-Uhms-luister-over-de-illegale-trade-in-protected-species.

‘We are in the midst of a criminalisation process’

Many changes occur in the way we look at the relationships between people, animals and living environments. Often, these changes also have legal implications. Criminologist Dr Daan van Uhm sees strong growth taking place in his field, Green Criminology. ‘In the last ten years, it’s been mostly younger criminologists who have increasingly focused on environmental crime. We explore not only the detriment to humans, but the damage and loss in terms of animal species or entire ecosystems as well.’

Right now, many changes are taking place in this area. ‘What is considered illegal or detrimental shifts under the influence of values and standards. We — humanity, that is — face major challenges with regard to worldwide pollution, deforestation and climate change, as well as the disappearance of protected animal species. In the 1970s, people could buy monkeys and lions at departments stores. It was a trend. Today, it’s hard for us to believe such a thing was allowed — yet it was only 50 years ago.’

Daan continues: ‘The field is quite exciting, in part because we can hardly imagine the kind of questions we’ll be dealing with in 20 or 50 years. Many kinds of damage to the environment and animals will become punishable by law: we are in the midst of a criminalisation process. Decades from now, how will we look back at today? In 50 years’ time, will primates still be kept in zoos or will that have been outlawed?’

This year was the first time that students could take the Green Criminology course taught by Daan. ‘This makes us quite progressive here in Utrecht, real pioneers within Europe. I can see it’s attracting a lot of students, and that’s good because we’re going to need some extra green criminologists in the future.’

Go to sg.uu.nl/video/2021/53/how-we-illegale-dierenhandel-stand-moedigen-to-syna-Daan-van-Uhms-luister-over-de-illegale-trade-in-protected-species.

People and animals

New Bachelor’s

Healthcare for people and animals is changing rapidly. The challenges we face today transcend species, generations and continents. Take, for instance, infectious diseases: such illnesses are impossible to combat from a single perspective. This is why, as of 1 September 2022, the Faculties of Science (Pharmaceutical science), Veterinary Medicine and Medicine are introducing a new broad and interdisciplinary Bachelor’s programme: ‘Care, Health and Society’. Our society requires entrepreneurial professionals with a broad perspective on caring for the health of people and animals in relation to their living environments. It needs people who collaborate with others to find solutions to complex health issues. Utrecht University has established this new programme in response to the public demand for human and veterinary healthcare professionals with diverse training.

The new degree programme with an intake restriction will start on 1 September 2022 with a cohort of 50 students. It is intentionally being offered as small-scale education so that students can learn in an active, interactive, interdisciplinary and collaborative fashion. Enrolment is now closed but will once again be possible for the 2023-2024 academic year.

Living together in ‘more-than-human communities’

Art historians, neurobiologists, environmental philosophers, cultural geographers, engineers and literary scholars: they all have their own reasons and methods for studying the relationships between people and animals. Within the ‘Imagining More-than-Human Communities’ project, scientists from a large number of disciplines and universities are working together to devise a more-equitable framework for the interaction between humans and our living environments. Kári Driscoll, a literary scholar in Utrecht, is the initiator of this Unusual Collaboration project.

While ‘more-than-human’ might sound futuristic, it most certainly is not. Kári: ‘Human beings have always lived in a world that’s more-than-human’. That’s because we are not separate from nature, we are a part of it. Even in cities — just look at all the forms of life surrounding you!’ Every scientist in this project strives to make their research less anthropocentric, meaning less focused on humans. ‘Our goal is to work together to explore possible forms that a more just community of people and non-people might take. That community should be based on equality rather than exploitation.’

Visit unusualcollaborations.com/#pbcn-projects to see other collaborations between researchers at Utrecht University, UMC Utrecht, TNO Eindhoven and Wageningen University & Research.
New knowledge is developing at a phenomenal rate. Your job undoubtedly requires knowledge that was not covered during your studies. Utrecht University’s Continuing Education programme provides the up-to-date knowledge and skills you need to remain permanently employable on the labour market, all based on the latest academic insights. From short courses to Master’s degrees, Utrecht University offers a wealth of opportunities for lifelong learning.

There is always more to learn

Alumnus Christophe Cazaban has amassed 25 years of experience in his field. Yet he still decided to take part in the Poultry Health Science course at Utrecht University. ‘I think it’s possible to learn more at any age or any point in your professional career.’

The natural world around us is constantly changing and animals are constantly adapting in response. That’s why Christophe is emphatic that lifelong learning is crucial, especially in the world of biology: ‘Veterinary medicine is important around the globe. The field is in a constant state of flux. We are continuously discovering new aspects or revising our theories. That’s why my enthusiasm never fades.’

Why did you choose the university?

‘Due to its reputation and the quality of its education, Utrecht University was the logical choice for me. The professors have a great deal of teaching experience and convey their messages effectively. An academic course approaches research studies from a variety of perspectives, which helps you to understand the different points of view held by others in your field. Utrecht University also issued me an accredited certificate upon completion, which was a vital consideration for me.’

Listening, hearing and absorbing

Sharing insights and experiences is important in the field of Biology. It is also a central concern of the course at the Faculty of Veterinary Medicine. ‘Our profession is a global network. For the health of people and animals, it’s important that we share our experiences at a large scale and continue to educate ourselves as individuals. It doesn’t matter whether you are 40, 50 or 60 years old, it’s important to keep your mind active and be prepared to listen, hear and absorb new information.’

Epidemiology of Animal Infectious Diseases

START: 22 May 2022
DURATION: Two weeks, meeting on five workdays per week
COST: €1,385

Infectious diseases are a major cause of illness in not only animals but people as well. In this course, you will learn techniques and theories related to veterinary epidemiology and animal infectious diseases.

Laboratory animal science

START: 28 March 2022 & 13 June 2022
DURATION: 80 hours
COST: €2,150

The well-being of laboratory animals is a primary concern when conducting animal trials. In this government-recognised course, researchers like yourself will learn why the three Rs (replacement, reduction, refinement) are so important when designing or conducting animal trials.

Want to keep learning?

Visit uu.nl/professionals for our full range of Continuing Education programmes.
Science

**Animal-free education**

Ever dissected your own lab rat as a science student? Or removed a beating heart from a frog? Not too distant a memory for most scholars. But for today’s students of life sciences at Utrecht University it seems like a lifetime ago. Nowadays, they can explore every layer of the anatomy of a rat using virtual reality, learn to perform examinations with a life-like plastinate of a dog, or practice microsurgery on noodles and flower petals. These innovations offer new ways to learn about life, without the use of laboratory animals. And not just for students.

**Not rats, but avatars**

‘Every year, 10 million animals are used for scientific purposes in Europe, of which 200,000 are used for education and training purposes — though this is most likely an underestimation. The animals are used by veterinarians in training, life sciences students, PhD students, technical support staff and researchers who are practicing anatomy, research skills or surgical techniques’, says Daniela Salvatori, Professor of Comparative Anatomy and Physiology at Utrecht University.

“There is another way”, says Salvatori. “Our students are the alumni and professionals of tomorrow: now is the time to train them for a world where the use of laboratory animals is not the norm.” That’s why, together with computer scientists from UMC Utrecht and Utrecht University, she has developed the Avatar Zoo — a range of 3D holographic models that students can use to study animal anatomy without ever dissecting an animal. With virtual-reality goggles, students can explore and interact with the blood vessels, the skeleton or the organs of a hologram, and practice suturing techniques as often as they want. There are already avatars of a rat, mouse and fish, and the Avatar Zoo will soon be expanded with a dog, cat, cow and sheep.

And this is not the only educational innovation that was borned in Utrecht. The Centre for Excellence for Haastin­

**Easier and cheaper**

‘It’s easier, cheaper and more animal-friendly than working with laboratory animals’, says Van der Zwan. “Working with laboratory animals requires a lot of organising and it’s becoming increasingly difficult to arrange. I had already read about a different approach. Flower petals seem ideal to work with: if you press too hard, you immediately see a print. And noodles are easily broken, you have to be very careful with them; that’s a good training for surgeons.’ The simple alternatives make the exercises a lot more accessible. ‘And if you make a mistake, you just get a new noodle. You would never do that with a rat’, says Van der Zwan.

**Better for students**

What if students actually have to learn how to work with animals? Even in the Laboratory Animal Science course — which covers the basics for anyone working with laboratory animals — the use of animals can avoided during the first steps. ‘We practice handling animals with Ikea mice, for example, and learn how to stitch on an inner tube of a bicycle’, says medical biologist Jan van der Valk, who until recently was the head of the Utrecht 3Rs-Centre, which aims to stimulate the development, acceptance and implementation of methods which can Replace, Reduce and Refine (the 3Rs) animal experi­

**‘Laboratory animals are not the gold standard’**

And the same applies to research: working with laboratory animals does not always yield the best results. ‘Laboratory animals are not the gold standard. It is time for academic journals to realise this too, and no longer require or support the verification of results using laboratory animals’, says Van der Valk. ‘I have high expectations for the next generation of students, and I believe they will put an end to the current routine and way of thinking. We shouldn’t take animals as a starting point in medical research, but humans.’

Want to learn more about animal-free innovations in education and research? Check out the longread here: uu.nl/en/organisation/in-depth/animal-free-science-next-level
In addition to her work as a neuropsychologist and psychodiagnostic staff member, Sophie de Heus also volunteers with the Dutch Society for the Protection of Animals.

So how did you end up choosing your degree programme? My grandfather developed Parkinson’s at a fairly young age. As a result, I spent a lot of time in nursing homes for people with neuropsychological disorders. I thought it was really interesting and wanted to understand it better. For me, Neuropsychology was a logical choice.

Did you actively prepare for your career during your time at university? While I was a student, I also worked in the hospital the whole time. I started out changing beds and then worked in various departments. Besides that, I also worked as a receptionist and management assistant at a rehabilitation centre. All those part-time jobs taught me how hospitals and the medical world work — which is really coming in handy now.

What made you decide to volunteer with the Dutch Society for the Protection of Animals? There was work for me at the hospital three days a week, so I had time left over. I always wanted to do something with animals, and happened across the position of coordinator for the Animal Buddy project by chance. Now I supervise around 50 volunteers who help people with limited social circles and budgets take good care of their pets.

Is there any overlap between your volunteer work and your job in the hospital? The people we help through the Animal Buddy project are often dealing with chronic illness or mental health issues. In the hospital, patients often say they don’t want to go to a nursing home because they don’t want to give up their pets. The well-being of people and animals is often closely intertwined.

What was the biggest challenge you faced in finding a job? I was offered a job at my internship organisation, but it meant I had to write my thesis and graduate in less than ten weeks. That was a fantastic opportunity, but also really stressful.

What’s next? Ideally, I’d enrol in the healthcare psychology programme in a few years and then go on to specialise in clinical neuropsychology. My ultimate dream is to have final responsibility for or head up a department in a hospital.

Sophie de Heus (26) has been working as a neuropsychologist and member of the psychodiagnostic staff in a hospital since she graduated with a Master’s in Neuropsychology. She also coordinates a team of volunteers for the Dutch Society for the Protection of Animals’ Animal Buddy project.

‘The well-being of people and animals is often closely intertwined’
Pain-free surgery

**1920**  
Anaesthesia, the full sedation of people and animals, was once a brand-new technique for performing surgeries without pain. In the 19th century, physicians used substances like nitrous oxide (laughing gas), ether and even chloroform. Later, these were replaced by more manageable gases that made it possible to control the duration of the anaesthesia with increasing precision. This also served to further reduce the risk for patients. This glass slide from around 1920 shows a dog being treated at the former Small Animal Clinic. Prof. A. Klarenbeek (1888–1972, to the left of the image), together with a colleague, administers anaesthesia to a dog using a positive-pressure anaesthesia machine. This device delivered an anaesthetic made from a blend of chloroform and ether. It was administered manually using a bellows and a pocket watch was used to record the time. These were later replaced by machines.

**2017**  
The long coats worn by doctors have given way to standardised, hygienic clothing. The various tasks are divided between multiple doctors, so that each individual can carry out a specific task as effectively as possible. While the patient is under anaesthesia, their condition is monitored closely using sophisticated machines that measure aspects including their pulse, respiration and blood pressure. In this photo (taken pre-COVID, hence the lack of masks), the doctors are about to connect (or disconnect) the patient to the breathing apparatus. The breathing tube is the link between human and device. Either the tube has just been disconnected following surgery, or the patient is just now being made ready for surgery in the operating theatre.
As a child, I lived in Nigeria for five years. Even then, I dreamed of working with wild animals someday. So when, while studying at UU, I had the chance to do a three-month traineeship at a South African wildlife park, I jumped at the opportunity. We helped conduct a study aimed at white rhinos.

Back in Utrecht, my days as an intern were the most fun. Three of us girls would head off to see the farmers, to the pig barns, in the middle of the night. During my doctoral research project, I explored why it’s so difficult to get the rare white rhino to breed in zoos. That brought me back to where I did my traineeship before: Lapalala Wilderness.

We compared the reproductive hormones in the faeces of the white rhinos here in Lapalala with those in the faeces of white rhinos in zoos. It turned out that the menstrual cycle among captive rhinos was disrupted, making it harder for them to reproduce. After my dissertation, I was invited to stay on as research manager at the park.

But I trained as a veterinarian, of course, and that’s what I wanted to be. In South Africa, you have to retake the exams first. It was tough, but I did it. Now I have my own wildlife practice here in the park.

Our goal is to let nature take its course whenever possible. When deciding whether or not to treat an animal, in other words, you consider the park as a whole rather than the individual animal. Except when it comes to endangered species like the rhino, cheetah and African wild dog. If one of those animals is in danger, we go out in the helicopter and treat the animal. But if you intervene too often, you disrupt the balance of nature and the principle of survival of the fittest.

I don’t see myself going back to the Netherlands to stay any time soon. I go to visit once every two years. Ride a bicycle around, see friends and family, do some shopping. But a few weeks is enough. Life is wonderful here, with unspoiled nature all around you and people who are truly doing their best to protect that nature.

South Africa is a country of highs and lows. But those high points make it amazing. I’m living my dream.

Tips

Learn Young

Four scientists and four research projects in four children’s lectures: how did dinosaurs live and what is an animal, anyway? In the spring of 2022, the University Museum is joining UU scientists for a deep dive into the world of animals, their bones, their history and their behaviour. In the latest lecture series from the MuseumJeugdUniversiteit, Anne Schulp, Jelle Reumer, Liesbeth Sterck and Edwin van Leeuwen will talk about their research. A must-see for inquisitive children ages 8 through 12!

Interested in the lectures? Check out the calendar now at umu.nl/agenda. The next lecture is coming up on 10 April 2022.

---

Annemieke Müller (MSc Veterinary Medicine, 2011), is a veterinarian and research coordinator at the Lapalala Wilderness wildlife park in South Africa. She earned her PhD at the University of Western Australia in Perth. Annemieke is married and has two daughters.
**Tips**

**Adopt a former lab animal**

Sometimes Utrecht University and the UM CUtrecht have lab animals they no longer need — for instance, when an experiment is cancelled, or when a mouse or rat doesn’t have the specific qualities needed for a particular trial after all. And what then? You can adopt them. Visit the Animal Welfare Body Utrecht’s website for more information on how to adopt one of these former lab animals, most of which are rodents.

**Laughter and tears**

The book Mama’s last embrace opens with the dramatic farewell between a dying 59-year-old chimpanzee and the UU primatologist Jan van Hooff. This deeply moving moment is recounted by Frans de Waal, also a primatologist in Utrecht and a former student of Van Hooff. De Waal makes a side-by-side comparison of human and animal emotions. He is unable to identify any fundamental difference — which also has implications for how we treat animals.

**On the trail of the dinosaurs**

Thanks to fossilised bones and skeletons, we have a fairly good idea of what dinosaurs looked like. Rather than being green and brown like those in Jurassic Park, they had eye-catching patterns and colourful plumage. Some were as small as a chicken and others were as big as a Boeing 737. New technologies are enabling palaeontologists to gain an increasingly detailed picture of how dinosaurs lived and moved. Prof. Anne Schulp talks all about it in this lecture.

**Out of the lab**

**Know your food**

This spring, Studium Generale will step into the kitchen in search of answers to questions about every aspect of our eating habits. On Monday, 11 April, speakers including ecologist Dr Pita Verweij will talk about food and biodiversity. Our efforts to grow food place a strain on the natural world — that much is clear. But are there ways we could keep eating delicious food while preserving biodiversity at the same time? You’ll learn the answer to this and other questions during this remarkable evening. What’s more, you can join the dinner put together by the chef at restaurant ‘De Zware Jongens’, featuring dishes that are in keeping with the evening’s theme.

**The Utrecht Day of Philosophy**

3 April 2022  On the Utrecht Day of Philosophy, we will join philosophers in exploring the world around us. To be held in TivoliVredenburg, uu.nl/agenda/sg-de- utrechtse-dag-van-de- filosofie (in Dutch)

**Classico Giro Utrecht**

22 May 2022  Ever since the Giro d’Italia passed through Utrecht in 2010, the city has put on this fun cycling race each year. classicogirorecht.nl

**Midsummer’s Eve**

23 June 2022  Midsummer’s Eve will be celebrated in the UU Faculty Club, complete with sparkling wine and refreshing summer beverages. uu.nl/faculty-club

**Test the new UMU**

20 April, 8 June and/or 27 June 2022  Every new museum needs new interactive research activities. Will you help test them? The testing will take place at the Sonnenborgh observatory and museum. uma.nl/nieuws/testdagen- sonnenborgh-2022 (in Dutch)
I was raised to be a carnivore: in my parent’s house, that’s what we were spoonfed... Or perhaps better said, served with a steak knife. My father kept a handful of sheep — whose offspring were sent to the butcher each year — and chickens, whose rooster chicks inevitably wound up in the soup pot. For a little while, we even had two cows. We ate one of them a year later, tongue and all. I could watch the population of an entire pasture cut down, without flinching, without emotion. I visited the slaughterhouse on occasion, where the butcher might proudly say: ‘I’ve got a fantastic Red Pied hanging in back, want to see him?’ The entrails dangled on the hooks, neatly divided by sort — an impressive sight. The blood on the tiles? Sure, that was part of the deal. The stale scent of mortal terror? You didn’t recognise it for what it was.

The kitchens of my childhood smelled of boeuf bourgignon, roulade and lamb stew. While at uni, I ate meat nearly every day: the evening meal sometimes consisted of nothing more than four bratwursts on buns, topped with a bit of lettuce for show. At Mr. Jack’s, the Greek restaurant in the Voorstraat that catered to students, you could get half of Old MacDonald’s farm on a plate for the price of a Saturday paper. Today, it’s been almost two years since I ate meat. The transition was as gradual and easy as falling out of touch with your friends from university. I took the final step (for me, it was resisting the plate of fried snacks at happy hours) in the firm conviction that it was better for the climate. This isn’t a boast and I certainly don’t consider myself an evangelist of vegetarianism. There’s nothing so exhausting as maintaining the moral high ground. It’s simply something that I, personally, began to see in a different light — much like Zwarte Piet or women’s football.

I still have a great deal of admiration for farming as a profession: an ancient form of coexisting with this ‘land of manure and mist’ (P.A. de Génestet). Such a deeply embedded way of life, older than the world’s so-called oldest profession (and, unlike that industry, often done with a great deal of love), cannot simply be outlawed. Such a transition takes time. Time we don’t have, if you ask the alarmists. Be that as it may, the realists reply, the time must pass all the same.

Jan Beuving
Jan studied at Utrecht University for nine years, completing a Bachelor’s programme in Mathematics (2008) and a Master’s programme in the History and Philosophy of Science (2009). After that, he became a comedian and cabaret artist. See janbeuving.nl for his performance schedule.