WUR from within: straight, sharp, transparent

No 03

Resource

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The journalism platform for all at Wageningen University & Research

Inappropriate behaviour at universities on the rise

Resuscitation course for student athletes

Replace lab animals with models and cells

Marine Sciences very popular

Resistance spreads fast with sex

New code of conduct

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These animals are **UGLY BUT USEFUL** p.14

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FOREWORD

Frankness

You may not always see it, but *Resource* is also a nurturing environment for talented youngsters. Our student editors are a diverse bunch of WUR students of different ages doing a wide range of degrees and from different cultures, all of whom want to learn journalistic skills at *Resource*. Some are reserved, others outspoken and one or two a quiet force. They are our eyes and ears, telling us what is going on among students, a key target group for our magazine. What they all share is youthful frankness.
During a meeting of our editorial staff, during which we discuss the topics we want to address — from science to the organization and from education to student issues — we came up with the idea of putting the Supervisory Board in the spotlight. That was partly because of the demand by student protestors for a more democratic university administration — 'without private-sector bigwigs in the Supervisory Board'. An interview with board member Kirsten Schuijt (director general of WWF International!) therefore seemed a good idea. What does the Supervisory Board do exactly and what do they think of the students' criticism? But unfortunately we didn't get permission. 'Not appropriate', we were told by the secretariat.
It is a shame there always comes a point when you lose that youthful frankness.

Willem Andrée
Editor-in-chief

Read the latest news and background stories at resource-online.nl

SLIME

The south wind has now largely blown the surface clean again, but in recent weeks the pond between Orion and Forum has been completely green. There is still some thick brown and green slime in one corner. This is the water fern (*Azolla filiculoides*). 'A nice plant but it has a tendency to take over,' says aquatic ecologist Marten Scheffer. 'It usually goes away again of its own accord, though.' The fern is an exotic plant from South America. It lives in symbiosis with the cyanobacterium *Anabaena azollae*. This lets the plant reproduce vegetatively very rapidly. RK

Photo Guy Ackermans

Marine Sciences very popular

The new Bachelor's degree is even more popular than predicted before the summer break.

The degree programme is so popular that the timetable had to be changed only one week before the start of the academic year, says programme director Karen Fortuin. 'There were too many students for the lecture room we had planned for the 'Introduction to Marine Sciences' course, in part because students doing other degrees can take that course. So one week before the start, we had to move the lectures from two in the afternoon to half past four.'
Fortuin gave the first lecture herself. 'I was pleasantly surprised by how actively involved and enthusiastic the students were so late in the afternoon. The students are dedicated, which is really nice. It has been a positive start, with both students and staff very energized. So yes it's crowded, but we're off to a good start.'

No competition?

Marine Sciences is the first university Bachelor's programme to focus on the marine domain. Enrolments in Marine Sciences don't seem to have been at the expense of enrolments in Biology and Environmental Sciences, says Fortuin. 'We expected they would form the main competition within WUR. But that seems to be OK given the enrolment numbers, which are on a par with last year. I see that too as good news.' LZ

On their first excursion, the new Marine Sciences Bachelor's students went out onto the mudflats of Den Oever to observe the soil life at low tide ✦ Photo Dagmar Fehrmann

Big increase in reports of inappropriate behaviour at universities

In the past four years, the number of reports of inappropriate sexual behaviour at universities has increased markedly. This is the conclusion of the radio programme *Argos* based on a survey of all Dutch universities. Regional newspaper *De Gelderlander* has also published news of abuses at Radboud University.

The *Argos* survey shows that the number of reports to confidential counsellors at universities more than doubled in four years from 141 in 2019 to 300 in 2022. The total number of reports of inappropriate behaviour (including non-sexual behaviour) was 4652 in the same period. That is a lot more than the number of formal complaints. Only 80 formal complaints were submitted in those four years, representing less than two per cent of the reported incidents.
With reports increasing by a factor of three (from 69 to 225 reports), Radboud University is the organization with the biggest increase in undesirable behaviour. The university in Nijmegen was also in the news because of two specific cases of inappropriate behaviour.

Sharing

Last week, *Argos* covered the story of how 'a leading professor of Psychology' crossed a line with a female student. This weekend, *De Gelderlander* revealed a formal complaint had been submitted (and upheld) against the rector magnificus Han van Krieken. The incident, dating from 2017, concerned inappropriate sexual remarks made to a female colleague. That almost no one knew about it was because the complaint had 'inadvertently' been left out of the summary of complaints in the annual report, says the university.
De Gelderlander announced it would be publishing another article this week about inappropriate behaviour at Radboud after talking to 20 women. So far, no one seems willing to talk about the incidents at WUR, as *Resource* has discovered.
If you do want to share your experiences with Resource (anonymously if wished) for an article on the background and patterns of inappropriate behaviour at our university, send an email to the editors. We guarantee discretion. resource@wur.nl ME

Radboud University has seen the biggest increase in reports

See also page 12 for an article about WUR's new social safety code of conduct.

8605

No fewer than 8605 people applied to take part in the citizen science project Schimmelradar ('fungal radar'). Five hundred of them will get a trap that they can hang up to catch spores of the fungus *Aspergillus fumigatus*. The project aims to map resistance in the fungus (see resource-online.nl *Fungi: gotta catch 'em all!*). RK

'Big agro' story ignores nature-inclusive agriculture

Banks and companies in the farming sector are more likely to emphasize high productivity and innovative agriculture in their communication than point to nature-inclusive agriculture as a possible solution. That is shown by an analysis by Wageningen Environmental Research and Wageningen Economic Research, commissioned by the Ministry of Agriculture. The researchers examined the message about key concepts such as 'good agriculture' and 'future prospects' in newsletters, brochures and flyers produced by these organizations. In addition to the text, the researchers also looked at the images: a photo of grassland full of herbaceous plants sends a different message to one of a uniform field of ryegrass. The analysis revealed six distinct storylines. Of the six, the one most favourable to nature-inclusive agriculture was the least common, whereas the most frequently seen storylines were the ones furthest removed from nature-inclusive agriculture. ME

Student athletes get resuscitation course

There is a shortage of first aiders who can help when someone has a cardiac arrest. That is why 40 Wageningen student athletes are getting a free resuscitation course.

The training is an initiative of student sports club SWU Thymos, student volleyball club WaHo and AED Foundation Wageningen. Luca Smit (20), Animal Sciences Bachelor's student, did the first course. 'We learned how to connect up a defibrillator and we practised resuscitation on mannequins. Resuscitation is an important skill: it could help you save someone's life. I hope I never have to use this skill but if it's necessary, I can do it.'

I hope I never have to use this skill but if it's necessary, I can do it'

After the course, Smit immediately registered with the Dutch resuscitation alert network HartslagNu. People who are registered get an alert if someone in the vicinity needs to be resuscitated. 'It's strange that members of the public normally have to pay for this course, especially given the shortage of first aiders. This is quite an obstacle for young people in particular.'

Free

Molecular Life Sciences Master's student Dirk Wevers (24) is one of the people behind the project. After he did a resuscitation course with AED Wageningen, he heard there were not enough people in Wageningen registered with HartslagNu and capable of performing resuscitation. 'Thymos requested funding from the Wageningen Sports Council to be able to offer this course free of charge. We are currently in discussion with the Sports Council to see if we can arrange a second round of courses after Christmas.'

Wevers says everyone benefits from a good resuscitation network. 'A while back, a lad of 17 collapsed on a hockey field in Wageningen. He survived thanks to rapid resuscitation.' LZ

The first trainees in action • Photo María Joaquina Acosta

Higher education in the election manifestos

The election manifestos of the Dutch political parties pay plenty of attention to students. With the aid of the Higher Education Press Agency, *Resource* summarizes the main topics addressed in the draft manifestos.

Basic grant

The basic grant is back as of this academic year, but some parties are offering to make it more generous. BIJ1, Forum voor Democratie (FvD), BoerBurgerBeweging (BBB) and Party for the Animals (PvdD) want to increase the grant. The PvdD talks of 475 euros per month for students living away from home while BIJ1 wants to make the grant dependent on the income of the parents and student.
The VVD, which was part of the coalition that abolished the basic grant in the first place, now wants to 'keep it for all students'. The Socialist Party (SP) thinks that 'everyone who wants to and is capable of doing a degree must be able to do so without impediments and without getting into debt'. If it's up to the SP, students — and adults who want to retrain — will get a higher student grant. Retraining is a topic that also appears in the VVD's manifesto. The party calls it 'essential for personal development and economic growth'.

Tuition fees and borrowing

The VVD wants to reduce tuition fees for degrees in subjects where there is a shortage of workers. The PvdD prefers to reduce tuition fees for everyone while BIJ1 wants to abolish tuition fees altogether. The CDA wants to promote flexible degrees where students pay tuition fees per credit. The VVD would like students to be able to do different modules at different universities.
Volt advocates the introduction of an interest rate ceiling of 2.5 per cent on student loans. BBB thinks it's not right that students should pay interest on the student debt and the CDA wants to make it easier for graduates to get rid of their student debt.

Degree language

According to the PVV, internationalization 'has turned Dutch into a marginal academic language.' That is why all Bachelor's programmes should be in Dutch only and why an upper limit should be placed on the number of foreign students admitted to Master's programmes.
Bachelor's programmes at any rate should be in Dutch, agrees the VVD ('unless the labour market demands otherwise') and GroenLinks-PvdA ('education in English only for degrees where there is no alternative'). The SP would like it to be possible to do and complete every degree programme entirely in Dutch.
CU is happy to see talented internationals come to the Netherlands but doesn't see the country 'as a place of education for every student who applies'. That is why education should be offered in Dutch.

No more 'cash per student'

PSome parties wonder whether the current system, in which universities get funding dependent on the number of students (who graduate) is still viable. The CDA thinks the focus should be less on student numbers and more on the university's social task. The FvD and CU also want changes to how education is funded, with student numbers playing a smaller role. The VVD agrees: it thinks academic and applied universities should work together more and focus less on 'competing' for student numbers. BIJ1 is more specific. It wants to abolish the bonus per graduating student, and believes higher education should get more money anyway. That would let universities turn down cash from the fossil industry and thereby increase their independence. DV/HOP

Not all draft manifestos were available at the time of publication. Scan the QR code for the latest information, including on topics such as internationalization and research funding.

Photo Guy Ackermans

Models and human cells instead of lab animals

Traditionally, the safe limit for humans of toxic substances is determined by conducting trials with animals. But toxicologist Tessa van Tongeren discovered such risk assessments can also be done with the aid of a computer and human cells.

From a scientific perspective we might be able to replace some animal tests by methods that don't require lab animals. 'But it's also a social issue. As a society, we need to get used to not doing animal tests.' ◆ Photo Shutterstock

'We expose lab animals to varying doses of a substance. Then we investigate the effect of each dose on an organ, for example. Ultimately, we want to determine the maximum dose without a harmful effect,' explains Van Tongeren. 'In addition, we want to know how much of the substance actually ends up in the blood or in an organ.' This data is then used to calculate the safe exposure limit for humans.

'A computer model lets us determine the safe dose'

The results with lab animals can't always be assumed to apply equally to humans. And some forms of illness in humans are difficult to determine in animals. Then there are the ethical, economic and legal considerations pushing scientists to reduce animal testing or find substitutes. Van Tongeren, who received a PhD in Toxicology in early September, studied how to determine the toxicity — and consequently the safe limit — of a substance without using an animal's body. She did this for hormone-disrupting substances suspected of having androgenic and/or oestrogenic effects.

'What are termed bioactivity tests can be used to identify possible harmful effects. In these tests, we use human cells that have been modified to give them an androgen or oestrogen receptor. We also gave these cells properties that meant they emit a light signal if a substance binds to these receptors. Then we measure the intensity of the light signal: the more light there is, the more harmful the effect.'

Computer model

The exposure can be determined with the aid of computer models, says Van Tongeren. 'These days, it is possible to simulate a human body on a computer. You input the sex, age and illnesses, for instance, and then you get a prediction for a very specific population of the concentration of the substance in the blood if someone gets a certain dose of the substance.'
It works the other way round too.

'If the bioactivity tests tell us what concentration of a substance causes a harmful effect, we can translate that dose into concentrations in the blood. The computer model then lets us predict what exposure dosage is required to get that concentration in the blood. That lets you determine the maximum dose before you get this effect — the safe limit.'
According to Van Tongeren, that means that from a scientific perspective some animal tests can be replaced by methods that don't require lab animals. 'But it's also a social issue,' she says. 'As a society, we need to get used to not doing animal tests. And the legislation needs to change.' DV

[Live&Learn]

A botched experiment, a rejected paper: such things are soon labelled as failures in the academic world. As for talking about them – not the done thing! But that's just what WUR scientists do in this column. Because failure has its uses. This time, we hear from Eric Schranz, professor of Biosystematics. Text and illustration Stijn Schreven

'When I became a full professor, I was 38, which is quite young to be running a chair group. I felt very lucky to be given the opportunity, but it was very demanding as well. I compare it with juggling: as a scientist you keep three balls up in the air, and as a manager suddenly there are 10. Then you're bound to drop a few.
After my Vidi grant, I was rejected for a big grant three times in the space of two years: first the ERC Consolidator grant, then the Dutch Research Council's Vici grant twice.
I was surprised at how painful that was. Not so much the rejection as the consequences. The university trains you to shine as a specialist, like some kind of superstar. I had to let go of that ambition. Soon after the rejection I was told I needn't take part in a consortium as one of the partners didn't consider me a big name in my field. Suddenly, a door had closed for me.
Veni-Vidi-Vici creates the impression that there is a single route to the top, but that's not the case. In search of alternative routes, I asked my boss Ernst van den Ende (then the director of Plant Sciences) for advice. You don't have to be a superstar, he said, we need community builders in the sciences as well. Not everyone can be a star player like soccer ball player Messi or basketball player LeBron James. It's really all about collaboration.

'According to a partner I wasn't a big name in my field. Suddenly, a door had closed'

The setback helped me to embrace my strengths, the version of myself that I had always been: a real team player. I love connecting people. Training PhD students and watching assistant professors grow gives me just as much pleasure as publishing an article in a top journal. I hadn't realized that beforehand. Success is broader and it's about meaningful work, being of value in your job and for the people around you.'

Sex explains rapid spread of resistance

Fungi reproduce both asexually and through sex. Sexual reproduction leads to a recombination, or crossover, of properties. Generally, the number of crossovers is limited. However, the fungus *Aspergillus fumigatus* has an average of 30 crossovers per chromosome, as a Wageningen study headed by Eveline Snelders shows.

The 30 crossovers are a genetic world record. To put it in perspective: in humans, crossovers occur three to four times per pair of chromosomes. The result of this large number of crossovers is that fungal sex leads to a complete makeover of the *Aspergillus fumigatus* genome. It's like cutting the deck of a pack of cards 30 times.
The sexual cycle of the *Aspergillus fumigatus* was only discovered in 2009, says Snelders. 'Sex explains the diversity we see in the fungus's genomes. That variation can't be explained by asexual (clonal) reproduction. But how does that diversity come about? Is it a question of not much sex and a lot of recombinations each time, or lots of sex with just a few recombinations each time?' Now we know it's the first option.

World record

Snelders and her team crossed two different fertile colonies of the *Aspergillus fumigatus* fungus and analysed the genetic composition of 195 offspring. After excluding other forms of recombination, they arrived at a new world record for the number of crossovers. The large number of recombinations has significant consequences for the development of resistance in the fungus.
Azoles have long been used to treat fungal infections, but *Aspergillus fumigatus* has developed resistance to them. The research by Snelders shows this resistance can develop after having sex just once because of the large number of crossovers. That means resistance can spread very rapidly in the case of this fungus. RK

The art of class management

Why does one teacher have the class hanging on his or her every word, while another's lessons frequently deteriorate into boredom and chaos? Often, the key is class management. How prospective teachers can get a grip on that is the subject of the thesis with which Tom Adams got his PhD in mid-September under the supervision of Perry den Brok (professor of Education and Learning Sciences.)

Class management is an umbrella term for everything teachers do to create a productive learning environment. Adams' interest in the underlying learning process was driven by both academic motives ('There wasn't much knowledge about it') and practical ones: as a teacher and researcher on the Fontys teacher training programme in Tilburg, he noticed that novice teachers often have trouble with class management. 'Particularly in view of the increasing shortage of teachers and the big drop-out rate among new teachers – 30 per cent leave education within five years – it's worth finding out how the learning process could be improved,' he states. The theory goes that there are five aspects to class management, explains Adams. 'That sounds quite straightforward, but classroom dynamics make it trickier in practice because the different elements of class management continuously interact with each other: the way you organize the lesson material, your relationship with the pupils, the quality of your lesson material, your own attitude, and so on and so forth.'

Learning plan

Adams studied how class management features in the curriculum of the teacher training programme, in terms of both the theoretical context and the practical skills involved, for example during teaching practice in schools. He also reconstructed the learning process regarding class management of 24 trainee teachers. He found a variety of learning styles: knowledge-oriented, feedback-oriented, inspiration-oriented and practically oriented. Adams used these findings to develop an intervention that gave the learning process a clearer structure in the form of a kind of 'learning plan' for the trainee teachers' final teaching practice period. The plan offered them a choice of options, including lesson observation and discussions, both formal and informal. Nine prospective teachers took part, and they evaluated the intervention as effective: the structured approach helped them to make the knowledge and skills they acquired more explicit. For example, they learned more about (non-verbal) behaviour, 'transition moments' during the lesson, and the interaction between teacher and pupils. As a result, they reported making more conscious use of eye contact, voice and gestures, giving them a calmer, more confident and friendlier presence in the class.

'Brief informal chats with colleagues are incredibly important'

Informal moments

Asked about the most important insight gained from his study, Adams points to the identification of the various components of the trainee teachers' learning process. 'It's not just the theory or the formal evaluation moments on teaching practice that matter, but definitely also the brief chats with colleagues in passing. These conversations are incredibly important. Even in just a couple of minutes, a rich body of knowledge can be shared.' He expands on this: 'It might not be a finding that I'll win the Nobel Prize with any time soon, but the realization that you learn a lot from meaningful informal experiences gives trainee teachers something to hold on to and some reassurance.' ME

Illustration Shutterstock

PhD theses in a nutshell

A nudge in the right direction

You can't look at the development of plants in isolation from their environment, because that development is driven by stimuli from the environment. Thai researcher Yosapol Harnvanichvech entered the emerging field of mechanobiology to study how embryos of the well-known model plant the sand rocket respond to being subjected to small mechanical nudges. Genetically speaking, there is little or no effect, except that phosphorylation occurs at lightning speed (within 5 seconds) at nearly 900 locations on the genome. This suggests, says Harnvanichvech, that a pressure-sensitive receptor-like protein triggers this response. A first in the plant world. What this phosphorylation means remains to be elucidated. *Mechanomics.*
Yosapol Harnvanichvech ◀ Supervisors Joris Sprakel and Dolf Weijers

Healthy eating against diabetes

A healthy diet helps in fighting diabetes. But it's not easy to change your diet permanently. Kristel Polhuis developed a method based on salutogenesis, which lays the emphasis on promoting health rather than controlling disease. Applying the method produced demonstrably good results. The diabetics who took part became more 'food-savvy' and better able to manage their diet and maintain a healthy weight. But not significantly better than a control group receiving standard diabetes healthcare. *Flourish and Nourish.* **Kristel Polhuis ◀ Supervisors Maria Koelen and Marianne Geleijnse**

Cloudy with sunny intervals

The interaction between the sun, cloud formation and the land surface is incredibly complex. Models tend to simplify the picture by assuming that the sun is directly above a cloud. Don't do that, says Menno Veerman. He achieves better (i.e. more realistic) results by calculating the solar radiation in three dimensions. Incidentally, his method shows that the beautiful spring of the Covid year 2020 was not a result of the lockdown: less aviation and road traffic did lead to cleaner air and more solar radiation, but much bigger factors for the sunny weather were low cloud formation and dry air. *Simulating sunshine on cloudy days, Menno Veerman.* **Menno Veerman ◀ Supervisors Chiel van Heerwaarden and Jorge Vilà-Guerau de Arellano**

THE PROPOSITION

PhD candidates explain their most thought-provoking proposition. This time it's Annika Tensi, who received her PhD on 23 June for her research on the economic effects of sustainable innovations on arable farms.

'Predatory journals burn public money'

'From 2021 to 2023, I was an active member of the Open Science Community Wageningen (OSC-W). In this role, I became aware of the different quality standards and business models of academic publishers. It frustrated me that some journals do not have rigorous publication procedures in place. For example, I found a paper in a predatory journal with a publication timeline of less than a month from submission, which made me doubt the thoroughness of the review process and the factual accuracy of the paper's statements. I think this is a concern shared by many researchers. Can serious researchers trust these papers?
Most research funding comes from taxpayers. When research is published in dubious journals and therefore not trusted, isn't that a waste of taxpayers' money? In another scenario, if "bad research" is not filtered out through a thorough review process and is then used by public funding agencies to set up new projects, this burns even more public money. The only benefiting party is the publisher of the predatory journal. Of course, I am not saying that such predatory journals are entirely negative. After all, they publish papers with open access and are accessible to researchers with limited funds, given that the publishing fees are lower than those of other journals. However, as we economists often say, "there is no such thing as a free lunch". In this case, is it at the expense of public money?' NF

New rector

Joshua Wambugu

WUR is looking for a new Rector Magnificus* as successor to Arthur Mol. What qualities and principles should the new 'Arthur Mol' have? With over 200 full professors at WUR, the quality of the potential successors is expected to make for a tough competition. Obviously, the educational and research milestones of the selected candidates will form the basis for the selection process. However, these two key aspects shouldn't be the only prerequisites in the selection. Other things to take into consideration are the candidate's practical knowhow and experience of handling issues of mental health, diversity and inclusion, and equality and equity in the WUR community. Another important point is how they will guarantee continuity in dealing with structural, institutional and everyday racism as well as social safety and respect for all.

'The WUR community's wellbeing should come first for the new rector so WUR maintains its outstanding rankings'

In the recent past, decisions around the admission policy, unequal representation and the remuneration of scholarship PhD candidates have demonstrated bias, discrimination and structural racism at WUR. As WUR's steward, the rector has a critical task to steer the university through all seasons, in good times and bad, through thick and thin. I have had the privilege of engaging with the rector in both informal check-in sessions and formal Council meetings; and I can attest to his dedication to acting in the best interests of WUR and its community. While he has demonstrated resilience by propelling WUR through both good times and tough times, such as the Covid pandemic, there will be plenty of unfinished business for his successor to work on.

The new rector can surely take a leaf out of their predecessor's book. But the successor will need a selfless spirit to maintain and anchor the stewardship role in relation to education, research and sustainability as well as in the interests of a strong WUR community with real advocacy of diversity, inclusion, equality and equity. Finally, the WUR community's wellbeing should come first for the new rector so WUR maintains its outstanding rankings both locally and in the world.

Best of luck to the selected candidates!

*Rector Magnificus is equivalent to the University Vice Chancellor.

Joshua Wambugu (40), from Kenya, is a PhD candidate in the Marine Animal Ecology and Environmental Policy groups. He is a Social Safety Guide with the DARE Project and a member of the project's coordinating team. He loves cooking, hiking and birdwatching.

New code of conduct: what is undesirable behaviour?

Fifty shades of black and white

WUR has a new Social Safety Code of Conduct. Its aim is to 'provide a clear definition of undesirable behaviour' and give 'support to employees and students'. The idea is to have a code of conduct based on how behaviour is perceived rather than how it is intended. The big question is: does the code of conduct achieve its aim?

Text Marieke Enter

What exactly is undesirable behaviour? When are you straying into a grey area and when are you just indisputably at fault? WUR's previous code of conduct did not really answer these questions, as it mainly focussed on describing the ideal situation. So the Social Safety working group wanted a new version that would be clearer on what's okay, and particularly what's not okay, and what the consequences are of crossing a red line.

That new code is now out, and was drawn up with input from staff and students. In discussion with them, it proved impossible to formulate incontrovertible lower limits for behaviour for the code of conduct. You tend to fall back on the legal frameworks, which are not always value-free either. So the code of conduct still contains some terms that are open to different interpretations, such as 'malicious gossip', 'unacceptable pressure' or 'deliberate staring'. It underlines that unacceptable behaviour is not something black and white, but is often context-dependent and therefore includes several shades of grey.

Change of perspective

But what *was* kept in this code of conduct was the decision to make the perception of behaviour the benchmark, rather than the intention. In other words, the issue is about how behaviour comes across rather than how it is meant. 'If someone lets you know that you have crossed a boundary for them, you're going to have to care – and have a conversation about it at the very least,' says programme manager Joyce van der Velde, summing up the approach. Getting away with unacceptable behaviour with the excuse that 'it was just a joke' or 'I didn't mean it like that' should be a thing of the past.

WUR is not alone in adopting this new benchmark. Others, including government commissioner Mariëtte Hamer, did the same. She defines inappropriate behaviour as 'behaviour that the other person does not want'. But there has been criticism of this decision too, for example from Nijmegen professor of Public Administration Michiel de Vries, who specializes in integrity research: 'So the other person decides: now you are crossing a boundary for me. I find that problematic. You can't always know what someone else is comfortable with,' he stated recently in an interview with *de Volkskrant* newspaper. Recent examples in Dutch politics - the dubious accusations of inappropriate behaviour levelled at Nilüfer Gündoğan, Gijs van Dijk and Khadija Arib – seem to underline his point: when perception determines how behaviour is judged, there's a risk of unsubstantiated suspicions hanging over people. On the other hand, there are also plenty of examples – not least in the academic world – of how inadequate protection against inappropriate behaviour can be when such behaviour is too rigidly defined. As the Delft planetary scientist Daphne Stam said of the persistent inappropriate behaviour in the faculty from which she recently

resigned: 'It is often things that are not correct behaviour, but are not obviously against the rules. Because there aren't any hard and fast rules at all for many things.'

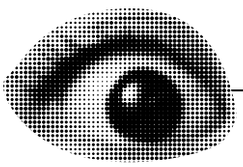
Watertight

Van der Velde agrees that the demarcation of inappropriate behaviour is a tricky issue. 'But I do think that by turning it around, we end up having more of a discussion about what is desirable and what is undesirable than if we keep things the way they are. Because then, quite simply, not enough will change,' she says. 'Besides, the code of conduct is not intended to suggest that if you just stick to it, all will be well. Nor is it a legally watertight document. The main aim of the code is to contribute to a conversation about social safety.' She realizes that a conversation like that might take some getting used to, 'especially for people who have never been challenged about their behaviour before.' So a conversation of this kind should be safe for all parties, she stresses. Because it can be quite painful to be confronted with how your behaviour comes across, whether you intended it that way or not.

Being framed

Van der Velde is not worried that the new 'perception perspective' will be abused, for instance by people inventing experiences of inappropriate behaviour in order to frame an unpopular colleague. 'The code isn't about finding out the truth of a matter. It only says: let people know when you experience their behaviour as undesirable, and discuss it. Often, people can work it out together. If not, you can bring others into it by reporting the behaviour or filing a complaint. Needless to say, such complaints are dealt with carefully and fairly, with a thorough investigation and both sides getting a hearing.'
Van der Velde also has no truck with the grumble that 'you can't do anything these days'. 'The only thing you can't do is behave heedlessly, with no consideration for someone else's boundaries. And they have every right to raise the matter if it does happen. No one else gets to tell you: "Oh no, I haven't crossed your boundaries." You're always the one who decides on that.' ■

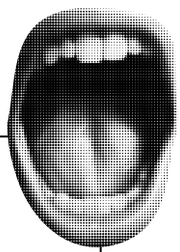
Want to respond to this article or share experiences? Send an email to resource@wur.nl



1

Lost in thought, you stare ahead for minutes. The person opposite you says they feel stared at. Are you crossing a line?

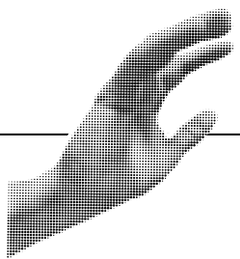
A No, you're just staring into the distance
B Yes, that's what the person opposite you says, right?
C It depends



2

You've made a silly mistake. Laughing, a colleague or fellow student calls you 'an imbecile' in front of everyone. Inappropriate?

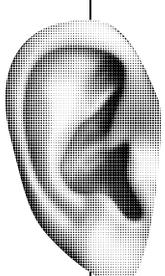
A Yes, I was made a fool of
B No, it's just a joke
C It depends



3

"We're OK, right?" asks someone you're in a conflict with, holding you firmly by your shoulders and giving you a penetrating look. Inappropriate?

A Yes, it is threatening
B No, it is unpleasant at the most
C It depends



4

A colleague or fellow student whispers in your ear that you look really sexy in the outfit you are wearing today. Is that person being inappropriate?

A No, it's a compliment
B Yes, it is sexual harassment
C It depends

Results

It's not always easy to pinpoint the right answer. The code of conduct identifies some zero tolerance behaviours, such as verbal and physical aggression, stalking, threats, sexual harassment and discrimination. Staring, swearing, touching someone or a personal comment, as in these examples, can certainly be considered inappropriate behaviour, according to the code. But it also states: 'Where the line is drawn between desirable and undesirable behaviour is different for everyone. It will therefore always be necessary to carefully and objectively determine whether unacceptable behaviour has actually occurred.' The Code of Conduct can be consulted via wur.nl.

UGLINESS IN THE SPOTLIGHT

Ugly animals are relegated to the sidelines. Unjustly so, says ecologist Francisca Virtuoso, who aims to correct this through her project Love the Ugly.

Text Roelof Kleis

The hyena is not exactly Prince Charming, as most people see it, says PhD candidate Francisca Virtuoso. Sheoften has to defend her decision to do research on such an ugly animal to friends and family. 'The hyena has negative connotations, even among ecologists,' she says.
Personally, she does not see the hyena as ugly. Quite the opposite, in fact, and she finds it an extremely interesting animal as well. Read the first edition of the Love the Ugly blog (abridged version) here to find out more about this species. The series will be published on the Resource website every three weeks, following the same format in every edition: a few fun facts followed by a detailed explanation of the animal's ecological function and the importance of protecting it.

Ugly but useful

That, obviously, is the ecologist's ultimate objective. 'People's preferences for animals should not be driven by their looks, but by their contribution to the ecosystem.' Even ugly animals have their place and function in this world. And the less lovable animals are still worthy of protection.

Even ugly animals have their place and function

Which species will feature in Virtuoso's blog? 'It is not about my personal preferences. I am interested in seeing what others perceive as ugly and whether there is a pattern to be discovered. I have a list in mind, but I encourage everyone to submit candidates. I have a deep interest in which species people find the ugliest and why.'
So, what makes an animal ugly? People frequently interpret a lack of symmetry as ugliness. 'The link between symmetry and beauty has been extensively studied in the domain of psychology,' Virtuoso says. 'Take, for example, the proboscis monkey with its balloon-shaped nose. Or the blobfish. These are species that lack facial symmetry.'
Another reason why a species might become unpopular, according to Virtuoso, is how it is portrayed by the media. 'And I believe Disney has a big impact on which animals are considered beautiful or ugly. Look at what *The Lion King* has done to hyenas!'

The spotted hyena (*Crocuta crocuta*)

The giggly villain from *The Lion King* is often seen as greedy and stupid. But spotted hyenas are one of the most under-appreciated predators in the world.

To kill or not to kill

Despite what most people think, spotted hyenas do not live off of the scraps of other carnivores. They actually hunt a lot more than they scavenge. Spotted hyenas have a bite force almost double that of lions, their strongest competitor. This bite force comes in handy to crack bones and hooves, allowing them to access the nutrient-rich marrow that is inaccessible to most other predators. Working as a team, a group of hyenas can eat an entire antelope in less than half an hour.

Let's talk about sex

Did you know that female hyenas have penises too? Actually, they're known as pseudo-penises, as they are an elongated clitoris used for copulation, birth, urination, but also sociability – hyenas develop erections as part of social greeting ceremonies. This makes it very difficult to accurately distinguish males from females. The females have three times more testosterone in their body than the males. These high levels of testosterone explain why they are more aggressive and more muscular than their male counterparts.

Hyena social club

Hyenas are capable of complex problem solving and have superior social intelligence. They are highly sociable, living in clans of up to 80 individuals, with an extremely complex hierarchical structure. You will rarely see all members of a clan together, though. Spotted hyenas are often found alone or in small groups, and have complex communication strategies. The 'laugh' we all know is only one of more than 10 different calls, and actually means distress, not joy.

Why should I care about a world without hyenas?

Hyenas are not the most popular animals. From their evil laugh and ungraceful body structure they are everything but appealing. But there is much more to these spotted animals than meets the eye. Did you know that although they look more like some kind of big furry dog, they are actually more closely related to cats?

Spotted hyenas are adaptable to different environments and, at times, you can even find them in cities alongside humans. Recent research has shown the economic and health benefits these carnivores bring to communities. By consuming a lot of waste and removing carcasses, hyenas reduce the potential spread of diseases.

Alongside their role as environmental cleaners, they are also considered important cultural and spiritual symbols in some communities. In those cultures, they are not seen as the embodiment of ugliness, stupidity and excessiveness, but represent sacredness and fertility. And in certain cultures, they are even believed to have been the animal that brought the sun to the Earth. A world without hyenas would be a cold and dirty place. ■

Illustration Marly Hendricks

TROPICAL FOOD GROWN IN DUTCH SOIL

Can you grow exotic, tropical and subtropical crops in the Netherlands? Yes, shows research by Martina Huber. And you don't even need to wait for climate change to take effect. A simple plastic roof is all that's needed to grow crops like long beans, bitter melons or Chinese cabbage. Over the summer, Huber grew some 48 different varieties in six plastic tunnels behind Radix. She did this as part of the Breeding for Biodiversity project. The successful cultivation trial ended last Wednesday with a large communal meal. RK

Photo Jasper Zijlstra & Jeroen Verschoor

Interest in boards has fallen since the pandemic, but

BarCo and PartyCo are up and running again

In spite of the additional members recruited to student societies during the Covid time, interest in serving on committees and boards fell. Yet they are crucial for a thriving student society. A year and a half after the last restrictive Covid measures were lifted, enthusiasm for being actively involved seems to be on the rise.

Text Luuk Zegers

'If you're a member of a society, you opt to be on a committee or a board because you want to achieve something and because it's fun,' says Madelon van Vuure, chair of the Wageningen Chamber of Associations (WKvK). She has regular contact with Wageningen student societies and is up to date on what's going on in them. 'In Covid times, you couldn't do much, and you couldn't even go out for a drink together. So why would you sign up for a committee?'

Once the Covid measures were lifted, interest in committees began to increase. 'It happened gradually,' says Van Vuure. 'At first everyone wanted to be free and have no commitments, but interest quickly grew, especially in committee positions. They are a bit less time-consuming than positions on boards.' Filling boards remained difficult. 'A fulltime year on a board means pausing your studies. People feel that's a lot, and that feeling increased after Covid. After all the restrictions, students wanted to enjoy their freedom without any commitments. It's noticeable that filling board positions is still harder, in study associations, sports associations and student societies alike.'

Rising interest

Student societies usually manage to recruit board members but it's harder than it used to be. 'Before Covid, you often had a pool of 14 or 15 candidates that members could vote for to form a seven-strong board,' says Van Vuure. 'Now the period in which people members can come forward as candidates often has to be extended, and there are societies that have to manage with fewer board members for a year. But even though it sometimes takes a bit longer to fill a board, there has been progress. And it's good to see that.'

Farmers' mentality

Unitas chair Niels van de Sande also sees a growing interest in active participation. 'We've certainly had problems with getting motivated volunteers and the members from the two "Covid cohorts" are relatively less active in our society. Covid has had some quite long-lasting after-effects.' But the members who joined last year and are now second-years are very enthusiastic, says Van de Sande. 'Suddenly there's a lot of interest, even for the normally less popular committees. For instance, there were six candidates for the security committee and three for the finance committee. Those are responsible tasks that new members are not often very keen on.'

How hard or easy it is to get boards and committees up to full strength has a lot to do with the society's culture as well, thinks Jesse de Vries, chair of Nji-Sri. 'At Nji-Sri, we have a farmers' mentality: all shoulders to the plough, and organizing nice things without many resources.

The Unitas bar committee in action. ◆ Photo María Joaquina Acosta

That's why we don't have much trouble filling board and committee positions. Of course, you sometimes have to approach people first and push a bit.' But even at Nji-Sri, they've noticed that people are often reluctant to commit themselves initially. 'One of the most frequently asked questions during the AID was: how many commitments are there? That's the spirit of the times, rather.'
The club culture at W.S.V. Ceres revolves around participation too, says president Gijs van der Neut. 'It starts during the AID and the VIT (the society's introduction period, ed.). We explain that you don't have a lot of commitments in Ceres, but we do give new members a nice introduction to the range of options. That way they are quicker to see how enjoyable and worthwhile it is to do other things alongside your degree programme, and to grow in other areas too.' The society's system helps a bit too, says Van der Neut. 'Monday night is club night, for instance. The committees start their meetings around five thirty. Then all 20 committees are together in the bar. After that the fun starts and you go for a meal and a drink with your year group. You go home about 11 o'clock. That system is attractive.'

BarCo or FellisCo

Although there aren't too many commitments, members of Ceres are expected to serve on a committee in their second year. Van der Neut: 'You're either on BarCo (the bar committee) or on FellisCo (the party and lighting committee).' What that means is that second-years are responsible for bar duties and the Thursday parties at Ceres. Each shift is three hours and second-years work four shifts per period. 'In fact, everyone enjoys doing that, but it's necessary anyway to keep the society going,' says Van der Neut. From that start, a lot of members go on to serve on other committees. Van der Neut: 'It's considered an honour to be on an important committee. By doing so, everyone wants to do their bit. In the end, the bar keeps running thanks to the members. For the members, by the members.'

> 'One of the most frequently asked questions at the AID was: how many commitments are there? That's the spirit of the times, rather'

Concern

Notwithstanding the increased interest, several of the chairs have one small reservation: there is concern about the Dutch Batchelor's intake. Van der Neut: 'That is the main target group for student societies, but recruitment seems to be falling. So we're taking a critical look at which committees are vital for a thriving society. Because in the end, you have to be able to fill the committees.' ■

Edible insects: the current status

GETTING THE BUG

Sustainable, cheap, safe inputs are needed before the cultivation of insects can become a profitable sector. 'The main issue is that the law should allow more waste streams to be used as insect feed.' Text Stijn Schreven

It was well over 10 years ago that Teun Veldkamp started researching the use of insects as livestock feed for pigs and poultry. A researcher at Wageningen Livestock Research, he now heads the SUSINCHAIN (Sustainable Insect Chain) project that ends this year. The project aimed at removing the last remaining barriers to a profitable insect-breeding industry. Has it succeeded? On Wednesday 27 September, researchers presented the latest findings on breeding edible insects at the closing symposium of the SUSINCHAIN project.

Hidden ingredient

Westerners still have a great aversion to eating insects. A six-legged creepy-crawly staring up at you from your plate is more likely to disgust you than to whet your appetite. So the researchers concentrated on adding insects in unrecognizable forms to foods that consumers are familiar with. 'We've got six new products in which insects are substituted for another source of protein,' says Veldkamp. 'That is what is new about this project: we have processed insects as an ingredient in everyday meals, in bread and pasta for instance.' The products include 'mince' from mealworms for Bolognaise sauce, a flatbread made from crickets, mealworm falafel and sausage, and a spicy cricket pesto.

Consumer research has shown that the food developed this way went down well with the tasting panels. Veldkamp thinks that insects have a future in Europe in the form of these kinds of everyday products. 'I expect that our project partners, like New Generation Nutrition and Bugging Denmark, will continue to develop these products and launch them on the market.'

A guide for upscaling

The prognosis is that the sector will be 1000 times bigger in 2025 than it was in 2019, in terms of both production volume and jobs. In the Netherlands and Europe generally, insect breeders are planning to expand. 'Protix (a firm breeding fly larvae for livestock feed, ed.) wants to expand in this country as well as to other countries. And we also have two large mealworm-breeding companies in the Netherlands: Ÿnsect and Wadudu.'

Veldkamp's research team investigated the bottlenecks for upscaling, and how to address them. They drew up a

'We have six new products in which insects are substituted for another protein'

There is still a widespread aversion to eating insects in the West. ◆ Photo Alamy

roadmap for upscaling and wrote policy recommendations. ‘The main issue is that the law should allow more waste streams to be used as insect feed,’ says Veldkamp by way of a summary. He’s referring to substrates from the waste from catering outlets and supermarkets, and byproducts from abattoirs and manure. ‘A lot of the substrates that companies currently use are waste streams that pigs and poultry can eat themselves. So if you use the insect itself as animal feed, you’re not gaining anything in sustainability terms. We need to look for new substrates. A new project called Safe Insects is studying the safety risks.’ Only when it has been ascertained that these waste streams are safe, and under what conditions that is so, can legislation be relaxed.

Still too pricy

The cost price of a kilo of insects is still too high for fish, poultry and pig farmers to be able to switch from soya or fishmeal as a source of protein, says Veldkamp. ‘We know that you can easily mix five to ten per cent of insect protein into livestock feeds, but it isn’t happening yet.’ Mixed feed companies put together a feed based on the nutritional needs of a particular animal and the lowest price for ingredients. They do not take into account the extra health benefits of insects as feed ingredients, such as better gut health, greater immunity or higher production. In an effort to change that, Veldkamp and his colleagues are providing data that show the benefits. ‘In pigs, poultry and three species of fish – salmon, rainbow trout and seabass – growth or egg production is as at least as good on a diet of insect protein as on soya protein. We’re still waiting for the health results to come in.’

Companies in the insect sector don’t share much information about their production process, nutrition facts or problems

The insect breeders can keep production costs down by sourcing ingredients locally, or by using waste streams that are not suitable for direct consumption by livestock or fish. A company can also specialize in a single stage of the insect-breeding process. ‘It is expensive to have all the expertise in-house. A company like Protix breeds and raises the insects and breeds larvae on waste streams on a large scale under one roof. I foresee that companies will focus more on a single part of the process, as you see in other animal sectors.’

Openness

The insect sector is dominated by large technological companies, and they are not keen to share information about their production process, nutrition facts or problems encountered in breeding. So it is not yet a realistic option for poultry or pig farmers to switch to insect breeding. That slows the development of the sector. By contrast, says Veldkamp, ‘Poultry and pig farmers get together in study groups to learn from each other. So we researchers can help them solve problems.’ But there isn’t yet that kind of openness in the insect-breeding sector. The project is making a start by sharing ‘best practice sheets’ on its website (www.usinchain.eu), with tips based on interviews about the positive and negative experiences of insect breeders. ‘You often learn more from the bad experiences than from the good examples.’ Help with calculations is also available so that entrepreneurs can see how their decisions affect the sustainability of the production process.

Veldkamp would like to see insect breeding grow into a mature livestock sector. ‘Within Wageningen Livestock Research we are working on expanding the field so good use is made of the available expertise on all its facets: breeding, animal nutrition, health and wellbeing, processing and the economics of it. We can’t draw up the legislation, but we can help by providing knowledge and data. We must focus on the things we have control over.’ ■

Insects and the law

There have been a couple of major breakthroughs in the European legislation on using insects as food. Since 2021, six products have been approved as Novel Foods (new foods that Europeans hardly ever ate before 1997) made from crickets, mealworms or locusts. And since the same year, farmers have been allowed to feed fish, poultry and pigs on processed insect protein.

Photosynthesis gets its own institute

This week sees the official start of the photosynthesis institute that was announced during the *Dies Natalis* last year. At that point, it was just an idea plus 62 million euros in sponsorship money. Now, more than a year later, the institute has a name, a director and its first employees. The new institute bears the name of Jan Ingen Housz, the Dutch father of photosynthesis.

Text Roelof Kleis

Former rector Martin Kropff is happy to acknowledge that 'No, I'd never heard of this scientist either. And I studied biology in Utrecht and Wageningen, and went on to work on photosynthesis.' Kropff is the chair of the supervisory board of the new Jan IngenHousz Institute. After his stint as rector in Wageningen, he was the managing director of CIMMYT in Mexico, a large international agricultural research institute dedicated to improving maize and wheat crops in developing countries.

Now Kropff (66) is retired and back in Wageningen, and he plans to spend his time on 'fun things' only. 'This institute is a really nice development.' Those fun things include his involvement with Crop XR, where he also chairs the supervisory board. 'Crop XR is about artificial intelligence and breakthroughs in plant breeding. The headquarters are in Utrecht but Wageningen is a major partner. I can imagine these two institutes developing links in future.'

Jan Ingen Housz (1730-1799).
◆ Illustration The History Collection / Alamy

'THE INSTITUTE AIMS TO ACHIEVE A BREAKTHROUGH IN THE NEXT TEN YEARS IN THE EFFICIENCY OF PHOTOSYNTHESIS'

The sponsorship money consists of 50 million euros from two private financers plus 12 million euros from WUR. That money should let the institute achieve a breakthrough in the next ten years in the efficiency of photosynthesis. That efficiency is low: at most, the plant converts a couple of per cent of the light it receives into usable energy. Increasing the efficiency would boost food production.

The Jan IngenHousz Institute will tackle that challenge with American professor David Kramer at the helm. He starts this week. Kropff says they have got a world leader in Kramer. 'Photosynthesis is a hugely complex process consisting of numerous steps, both photochemical (capturing the light) and biochemical (converting CO_2 into glucose). Kramer has worked on many of those underlying processes.'

Breakthroughs

According to Kropff, Kramer also thinks in terms of systems. 'His approach is to consider the system as a whole before delving into the details. So first assess where the bottlenecks are in the whole photosynthesis process and identify the opportunities for breakthroughs. The ultimate aim is to improve the photosynthesis not of one leaf but of the crop as a whole. The breakthrough is likely to result from a combination of changes rather than improving one single detail.'

It is not yet known which crop the institute will be focusing on. Kramer will be figuring that out over the next few months together with his Wageningen and international colleagues. Kramer and his institute will get a (yet to be determined) prominent place on campus with the Plant Sciences Group. ■

Reactions to WUR's financial support for scholarship PhD students

'A STEP IN THE RIGHT DIRECTION'

Scholarship PhD students whose income has not kept up with inflation and is less than the Immigration Service's norm of 1506 euros a month will get financial support from WUR. What do WUR people think of that? Text Roelof Kleis

Jelle ten Harkel,
Wageningen PhD Council secretary

'We think the compensation is a good move. It is particularly nice to see the Executive Board is taking the risk of helping these PhD students out without waiting for prior approval from the tax authority. I think it will make the PhD process easier for a lot of people; it reduces the stress from struggling to make ends meet. There are huge differences between PhD candidates on a contract and those without a contract. Our council is currently working with the graduate schools to catalogue those differences.
'The financial differences are not so big in the first couple of years of a PhD, but they are after that. The grant remains the same but the salary of a PhD candidate on a contract increases. That difference has become even bigger recently due to the high inflation. Lots of PhD candidates are questioning the differences, given that they do the same work. But it's not just the money. There are also differences in other employment conditions, such as insurance and parental leave. And little things, like not necessarily getting the Christmas gift box. Scholarship PhD students don't get appreciation and recognition within the organization. This measure shows WUR is now listening to their concerns.'

Jingwei Zhou,
scholarship PhD student in Hydrology and Environmental Hydraulics

'I think it's a good initiative from WUR. It means we will be able to maintain our living standards over the next few years. My grant is 1350 euros a month, and since last year I've found it difficult to make ends meet. Nearly all my money goes on day-to-day expenses. So I can't travel much or do leisure activities. I mainly travel during off-peak hours to keep it affordable. I'm definitely pleased to get this extra money from WUR.'

Han Zuilhof,
professor of Organic Chemistry

'I'm pleased the Executive Board has now tackled this. In the last few months I've been paying the extra money from my own pocket, on the basis of 'put your money where your mouth is'. But of course the amounts add up and my actions therefore needed the support of my boss, aka Mrs Zuilhof. It's fine if the costs are partly at the expense of the PhD bonus. That way, you link the costs to the financial benefits. This support also tackles one aspect of the notorious 'China' article that appeared this spring in *Resource*. That is really good and deserves our gratitude. I hope other aspects will be tackled too so that Wageningen Campus can remain constructively welcoming to everyone with their thoughts (expressed out loud) and writings, regardless of their country of origin. In my opinion, One Planet refers not just to the amazing research institute on campus but also to the fact that we can only resolve the major problems facing us as scientists by working together, across disciplines and nations.'

Claudius van de Vijver,
head of the PhD programme at graduate school PE&RC

'Has WUR done the right thing? I can't give a whole-hearted yes or no. I find it strange that errors made in the past have to be put right in this way. We should have been more alert in the past and done better at checking whether the grants being paid comply and continue to comply with the IND norm. I think it's good Wageningen is now taking responsibility and making sure scholarship PhD students have a decent standard of living and aren't struggling. Of course the underlying issue is whether you should align scholarship students with the PhD students who are employed. I think that is partly why the Executive Board took this decision.
'The Board is demanding all grants comply with the IND norm from 1 January, including the inflation adjustment. I don't think that will put off scholarship PhD students. We are number one internationally for agriculture and environmental sciences. The grant-issuing countries are glad they can send their PhD students to Wageningen to get knowledge and expertise.'

David Meijer,
WUR Council interim secretary

'It's good to hear the Executive Board is doing this. It's a step in the right direction. But of course it is still a weird situation when your close colleague, who is doing almost the same work, gets paid so differently. Even so, I'm surprised by this decision. Before the summer break, the WUR Council was told the Executive Board was working on it but the decision would depend on getting approval from the tax authorities. Now it seems they haven't waited for that, which is strange. It's good they are prepared to take the risk but I do wonder whether they should first have asked the WUR Council to approve this decision. I will encourage the new members to put questions about this.'

Photo Shutterstock

Cash for scholarship PhDs

Scholarship PhD candidates are not employed by the university; they depend on a grant they get from their country of origin. WUR has over 500 such PhD students, a fifth of the total PhD population. The grant must be more than the norm set by the Dutch Immigration and Naturalization Service (IND), the minimum amount it thinks is needed to live off. The IND won't issue a visa if the grant is less. But due to the high inflation, many scholarship PhD candidates have been on grants under the IND norm for some time. Now the Executive Board is going to tackle the situation, even though the tax authority has not yet approved the proposed solution.
The grants will be supplemented up to the most recent IND norm, applicable as of 1 July. The supplement applies until the end of the PhD, with a maximum of four years.
In return for this gift, WUR requires the granting organization to make sure the PhD candidates' grants grow in line with inflation as of the next calendar year. The scheme is expected to cost WUR between 2 and 2.5 million euros. Some of that money will come from the PhD bonus that chair groups get for the successful completion of a PhD project.

THINKING WITH YOUR GUT

Our guts and brains communicate with each other — that is something the science agrees on. But exactly how that works and what we can do with this information is still uncertain. Can our behaviour be explained by the combination of bacteria in our guts, our microbiomes? Text Dominique Vrouwenvelder

This summer a group of mainly British researchers published a paper on the differences in the microbiomes in children with an increased risk of developing an autism spectrum disorder. They asked Wageningen experts for help with interpreting their data. One of them is Clara Belzer, an expert in the field of microbial diversity, molecular genetics and the microbiome of the digestive tract. *Resource* talked to her about the implications of the British study.

Does the microbiome play a big role in our behaviour?

'Yes, intestinal health plays a big role in behaviour and behavioural problems, but we are still not sure whether we can relate this to the bacteria in our gut. Anyway, the microbiome certainly plays a key role in the digestion of our food. Diet is important for a lot of physiological processes in our bodies, from the way our brains function to the way our muscles are formed. The better your physiological health, the better you feel, the calmer you are and the less stress and anxiety you suffer. I know a lot about the micro-organisms in our guts. They are all minor miracles. We could try to make use of our bacteria by getting them to produce substances from our food that we benefit from and that improve our health, like the neurotransmitters GABA and serotonin.'

What can those bacteria do for our health?

'We know that there is an exchange of information between your gut and your brain, via the gut-brain axis, but we don't know exactly how it works. We also know that there are a lot of neurones in your gut. The gut uses these to process a lot of stimuli that can create feelings of hunger and satiety, as well as feelings of pain, discomfort and happiness. For example, it has already been proven that the substance butyrate, produced by gut bacteria, can reduce pain in the gut. And the microbiome also produces neurotransmitters such as serotonin and GABA, which are known for their regulating effect on our emotions. We don't yet have much idea of how these substances produce a reaction in our bodies. In our lab, we study bacteria that produce GABA, butyrate and other useful substances with the help of the food we eat. We are curious as to which bacteria do that and how they do it.'

What do we know at this point about this information exchange?

'The problem is that we're not sure which processes in the abdomen have an effect on the brain, since the bacteria in the gut do not get into the brain themselves. They can't pass through the intestinal wall. What might be possible is that these gut bacteria convert our food into small particles such as vitamins, neurotransmitters and other metabolites which can get through the gut wall. These substances could then end up in our blood.

‘We know that there is an information exchange – via the gut-brain axis – between your gut and your brain but we don’t know exactly how it works.’
◆ Illustration Valerie Geelen

‘THE MICRO-ORGANISMS IN OUR GUTS ARE ALL MINOR MIRACLES’

But it isn’t clear yet how these metabolites can affect behaviour and whether they themselves can maybe reach the brain.’

Does our behaviour change if our diet changes?

‘People with stress, for example, or people on an autism spectrum can indeed benefit from a change of diet. Their symptoms can be reduced or even disappear. And we also know that people on an autism spectrum often have bowel problems. The microbiome with all its bacteria plays a big role in the digestion of food, but the microbiome also changes if our diet changes. There will be components in our diet that can boost the production of useful substances like butyrate and GABA by bacteria.’

So we don’t just think with our guts, but also with what we eat?

‘You can draw an imaginary triangle between behaviour, diet and microbiome. The connections between these three are still unclear. We can correlate the microbiome with diet, and diet with behaviour. But there is an ongoing discussion now as to whether we can correlate the microbiome with behaviour. The effects we observe could also come from a change in diet.’

Then diet cannot yet be used to help people with behavioural problems?

‘The difficult thing is that people with a particular form of obsessive behaviour don’t all have the same physiology and don’t all behave in the same way. That makes these links difficult to study. Besides, the autism spectrum itself constitutes a broad range of symptoms, and everyone’s microbiome is different.’

What are you working on now?

‘We want to investigate the effect of diet on the behaviour of children with ADHD. Can you reduce the symptoms without having to use medication? We’ve submitted an application for funding.
There are many aspects to the interaction between your brain and your intestines. The microbiome isn’t a medicine in its own right. It’s about a balance between the clinical picture, diet and the role, not yet fully understood, that microbes play.’ ■

Freshers in Waga:

THIS IS HOW TO BE A REAL LOCAL!

The AID is far behind us and you've survived your first few weeks on campus. Do you know your way around the uni pretty well by now, but still feel a bit out of place in Wageningen? The student editors at *Resource* know the feeling and collected some tips to help you get your bearings both on and off campus. Illustration Ilja Bouwknegt

Local activities

Activities and contacts outside the university can help you feel more of a connection with Wageningen. Loads of events are organized in the town at which you can meet your fellow Wageningers, such as a dinner on the dyke, and games nights or musical nights at the library. You can find a handy overview on uitinwageningen.nl
Femke van den Dries

Market

There's a market around the big church in the middle of Wageningen every Wednesday morning and Saturday. The perfect place to pick up local vegetables, buy fish and taste cheeses while chatting with the fellow students and townspeople who happen to be standing next to you. The Wednesday market is the biggest: besides food there are all kinds of stalls with things like fabrics and clothing. **Mario Martens**

Open parties

Wageningen is a conventional little town but of course it's a student town too. Although the canals, the surrounding countryside and the cafés have their charm, it's the students that liven the place up. Especially on Thursday evenings at the 'open parties'. You can go to a different party every week and get to know the true Wageningen culture. Because there is nothing more Wageningen than dancing the night away and then sitting bleary-eyed in the lecture hall at 8.20 the next day. **Linde Klop**

Cook together

A potluck dinner is always nice, but making your food together from scratch is also a great way to get to know your new friends! Find someone with the biggest kitchen and organize a cookout. That way you can get to know your friends' living situation, exchange snippets of information about your culture, and blow your mind with flavours you never knew existed. **Kevin Aditya Prathama**

Marktplaats Wageningen

Apart from Wageningen Student Plaza, people get rid of things they don't want on Marktplaats or the Facebook group 'Wageningen Weggeefhoek'. Often you go to collect what you're buying in neighbourhoods where not many students live, and that helps you get to know the town a bit better (even if you do need to consult Google Maps). Plus, it's a nice way to get to meet people from outside your circle. **Femke van den Dries**

Pub quiz

The best way to savour Wageningen's social life while impressing your friends as a fount of irrelevant knowledge is the Pub Quiz at The Doctor. In this café on the market square, the air is thick with rivalry every Tuesday, when different groups compete for the title of the smartest. And afterwards you can celebrate victory or drown your sorrows with a nice drink and good music. **Linde Klop**

You encounter all the flavours of the world in our WUR community. Senna Janssen, a PhD candidate in Agrotechnology and Food Sciences who recently won the Great WUR Bake Off, shares her recipe for a mango apple crumble pie.

Flavours of WUR

Mango apple crumble pie

Senna Janssen
a PhD candidate in Agrotechnology and Food Sciences

'Baking is one of my passions and I like to design new recipes. Here, I've made a variation of the traditional Dutch apple pie for you.'

Dough

1. Mix butter, sugar and salt, add the egg and flour and mix.
2. Knead to a dough.
3. Put the dough in the fridge for 30 min and pre-heat oven to 180C.
4. Roll out the dough into a sheet 0.5cm thick.
5. Cover the bottom and sides of a baking tin (24cm diameter) with the dough.
6. Spread 1 to 2 spoonfuls of custard on the bottom.

Mango compote

1. Defrost the frozen mango and heat it in a pan with the sugar and lemon juice. Blend the mixture to a puree.
2. Take a bit of the puree and mix in the corn flour, add to the pan and heat until the puree thickens.
3. Chop the fresh ripe mango into small pieces, add to the puree and heat for 2 minutes.
4. Let the mango puree cool.
5. Soak cranberries in warm water for 10 minutes and then strain the water.

Filling

1. Peel and slice the apples.
2. Fill the baking tin with layers of apples, mango compote and cranberries.

Crumble

1. Mix the caster sugar, almond flour, flour, custard powder and salt. Cut the butter into small cubes.
2. Knead the butter into the dry mixture with your fingers until it gets crumbly. Add the sliced almonds.
3. Divide crumble over the fruit filling.
4. Bake at 180/160C for 60 minutes until golden brown.

Ingredients:

Dough
- 300g self-rising flour
- 200g butter (at room temperature)
- 100g white caster sugar
- Half an egg
- Pinch of salt
- 1-2 tbsp custard

Fruit filling
- 6-7 apples
- 1 ripe mango
- 250g deep-frozen mango
- 1 tbsp lemon juice
- 30g caster sugar
- 1 tbsp corn flour
- 120g dried cranberries

Crumble
- 75g butter (cold)
- 75g brown cane sugar
- 75g almond flour
- 105g wheat flour
- 1 tbsp custard powder
- 30g sliced almonds
- Pinch of salt

Which dish reminds you of home? Share it with *Resource* so we can all enjoy it! resource@wur.nl

You see the most fabulous-looking people and the coolest outfits around the Wageningen campus. In this feature, we shine the spotlight on one of them every two weeks. This time, Alejandro Thérèse Navarro (29), a researcher at Plant Breeding.

'I like to take a garment that's out of the ordinary, and build the rest of my outfit around it. I have a great collection of bowling shirts and Hawaiian shirts that sometimes make me look like a 1980s dad on holiday. They're colourful, funky and sometimes a little campy. I combine a statement piece with more work-appropriate clothing. For work, I want to look presentable but I don't want to look exactly like the rest. So this is a great solution for me.

For a long time, I struggled with feeling like I did not fit in. I was always a little different. That's partly why I now dress the way I do. I learned to accept what makes me unique, and to be more openly out there, which I do partly through my style. I teach and supervise here at WUR too, and I think in this way I can also show the people I teach and supervise that you don't always have to conform to the norms for a 'corporate' image.

I get my unique items of clothing from second-hand stores, where you can find items that aren't extremely basic. This shirt is from a small vintage store in Utrecht which has its own rack of strange shirts – perfect for me. Sometimes the shirt looks ridiculous at first glance, but it's a bit like a game for me. It's like dressing up: how can I create an outfit with this? I think in the end it's always about finding a signature piece you can work with.' IB


Photo *Resource*

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Long-term parked bicycles will be labelled on 1 March / 1 September and collected on 1 April / 1 October.

April | October
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IN MEMORIAM

GAB VAN WINKEL

We received the sad news that our former colleague Gab van Winkel passed away Thursday, 14 September after a tragic accident.
Gab was closely involved in the Wageningen PhD programme until his retirement in September 2021. As secretary, he was involved in the WIAS graduate school from the start. He subsequently expanded his research area to the entire PhD population of WU. He represented WU nationally and internationally and presented clear and well-thought-out analyses on, for example, the quality assurance of dissertations or the careers of Wageningen PhD alumni. Even after his retirement, Gab was still working on this. He wanted to compile his results in a popular science book for a broad audience about the Wageningen doctoral degree programme in a national and international context. Gab also enthusiastically gave workshops on scientific integrity back when this subject was much less known than it is today. Gab was known as a calm, honest and friendly colleague.
We wish Gab's loved ones a lot of strength with this unexpected loss.

On behalf of WUR,
Janneke van Seters
Wouter Hendriks

Colophon

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One of Wamelink's grow boxes with rye and pea plants. Musk was not impressed: 'The money would be better spent investigating fish farms on Mars.'
◆ Photo Guy Ackermans

MUSK WANTS SUSHI ON MARS

Billionaire Elon Musk plans to live on Mars. He has asked Mars horticulturalist and WUR researcher Wieger Wamelink to figure out whether anything other than vegetables can be grown on the planet. 'Nobody likes vegetables,' says the tech billionaire.

Wamelink has gained an international reputation for his research on crops grown in Martian soil. He has successfully grown carrots, peas and tomatoes. But they just happen to be the products space pioneer Musk hates. 'Nobody likes vegetables,' says Musk.

Now the richest man on Earth has asked Wamelink to investigate whether cows, salmon and tuna could survive on Mars. Musk eventually intends colonizing Mars through his space company SpaceX. But he'd prefer it if he had steak and sushi to hand there. Musk would also like doughnuts and diet coke to be on the Mars menu. 'It would be good if these things could be produced on location,' says Musk when asked. 'Doughnuts taste best when they're fresh, and it's simply not practical to fly down to Earth every time you need to restock on coke.' Not sustainable either, but apparently the billionaire doesn't have much affinity with that topic.

Wamelink has been playing 'hard to get' so far. He sees the filthy rich American as a possible sponsor, but is not a sushi fan himself. To get used to the idea of a lengthy trip in a spaceship, the ecologist has been spending time as of last week at the new Spacefarming exhibition in the Evoluon museum in Eindhoven. 'It's not a real spaceship but it does at least look like one.'

'It's not practical to fly down to Earth every time you need to restock on coke'

Musk seems determined to get Wamelink involved in SpaceX. He was recently spotted in Eindhoven in the vicinity of Evoluon, chewing on a sausage roll. Musk said he was 'on a mission'. 'I'd like to die on Mars —not during the landing of course. But if I'm going to live out my days on the planet, I will need to have some decent food. That's where Wieger comes in.'