

# Campus



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LIFE OF  
BRECHJE  
MARÉCHAL

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UT ALUMNUS  
TIM VAN DE RIJDT  
ABOUT CULTURED MEAT



**COLOPHON**

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**Campus Magazine Team**

Ratna Toering (publisher),  
Maaïke Platvoet (editor-in-chief),  
Michaela Nesvarova (magazine coordinator),  
Ditta op den Dries-van Baaren (editor),  
Sandra Pool, Rense Kuipers,  
Jelle Posthuma, Stan Waning,  
Laurens van der Velde,  
Kees Wesselink, Maurice Essers,  
Hilde Luiten.

**Other writers who contributed to this issue**

Wiendelt Steenbergen,  
Hiska Bakker.

**Photos by**

Rikkert Harink, Eric Brinkhorst,  
Frans Nikkels, Christiaan Krouwels,  
UT Archive, Laurens Morel,  
Lotte Sliedregt, FC Twente Media.

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Or email to: [alumni@utwente.nl](mailto:alumni@utwente.nl)

Contact & tips for editorial team  
[utoday@utwente.nl](mailto:utoday@utwente.nl)

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FOREWORD



**READER SURVEY**

This is the eighth edition of Campus Magazine that you receive from the University of Twente. The magazine first came out in May 2020, which caused quite a few headaches back then because we were in full lockdown.

Yet Campus was also very welcome at that time - when we all worked and studied remotely - because the magazine is made to inform and connect. By writing stories about education, research, entrepreneurship, student life and alumni, we bring different members of the UT community together.

This underlying principle is very important to us. Sometimes we add a bit here and there. Such as more diversity in the subjects, but also in the people we interview. The content of Campus should speak to everyone; students, academic staff, support staff, alumni, but also the business community and external relations. Of course that means that one edition might be more successful than the other.

After eight issues, we are very curious about your experiences with Campus Magazine. That is why a reader survey will take place at the beginning of January, among a pre-selected group of readers who will receive the survey by email.

We especially want to know what you value the most. This leads to questions such as: do you read everything or just a certain section? And what about the different categories - do you have a favorite, or not at all? But also: does Campus make you curious? Does it call you to action? My personal favorite question: What would you change or improve if you were editor-in-chief of Campus Magazine? Don't be shy!

We will publish the results in the next edition. If you have not received an invitation to participate in the survey, but would still like to say something about Campus, please send an email to [utoday@utwente.nl](mailto:utoday@utwente.nl). We look forward to your opinion, so that we can make even better versions of this magazine in the future! •

**Maaïke Platvoet**  
Editor-in-chief of Campus Magazine



# COULD ROBOTS SOLVE STAFF SHORTAGES?

SECURITY GUARDS AT SCHIPHOL AIRPORT ARE IN SHORT SUPPLY AND THE HEALTHCARE SECTOR IS ON THE VERGE OF COLLAPSE DUE TO STAFF SHORTAGES. ARE ROBOTS THE ANSWER TO ALL THESE JOB VACANCIES? UT EXPERTS SEE GREAT POTENTIAL IN THE NEAR FUTURE, BUT ALSO MAKE SOME CRITICAL OBSERVATIONS.

The job market is tight. Many companies and institutions are struggling to fill vacancies. CBS recently calculated that there are only 100 job-seekers for every 133 vacancies. Things are no different in Twente. In two years' time, the number of vacancies at Twente employers doubled to around 11,300, according to the latest Twente labour market monitor. For several organisations, the shortages lead to stagnation: companies are cutting back production despite market demand for their products, the hospitality industry is reducing its opening hours and in the educational sector, the structural shortage of teachers leads to increasingly full classrooms.

'The COVID-19 crisis has had a major impact on the job market, as did the period of economic recovery that followed,' Linda van Asselt points out. She is a UT alumna and programme manager at the Twente Board, a partnership between the educational institutions, government and entrepreneurs of Twente. 'The staff shortage is by no means a temporary or new problem, but it's now become very apparent. The population has been ageing for quite some time and will continue to do so for several decades. This makes demographic development an important factor – if not the most important one – in the growing labour market shortages. This is true for Twente, but certainly on a broader scale as well.'

Van Asselt says that technology, including the use of robotics, will play an important role in reducing the staff shortage. 'But with technology everywhere, there will be challenges ahead: both for the technicians who develop it, but also for everyone who has to work with it. That is why we are concentrating our efforts across a very broad range of areas: from better embedding IT and technology in education, starting from primary school, to retraining and upskilling people already on the labour market.'

## DISTANT FUTURE

But where are we today? Will we see robots teaching in classrooms or working at hospitals in the near future? According to Suzanne Janssen, assistant professor of Organisational Communication, such a future is still very distant. In 2018, she was awarded a Veni grant for her research on 'robots as colleagues'. The current use and impact of social robots in particular is still limited, Janssen argues. 'The capabilities of social robots are mostly seen in a laboratory setting. The role of such technology in an organisational context, at a company or institution, is very minor.' For now, these kinds of robots are mainly used as support or gadgetry. 'To say: look at us being innovative. So far, industrial robots have had the biggest impact on employment, for example in

the automotive industry. But I find this technology less interesting for my own research, as these robots hardly interact with humans.'

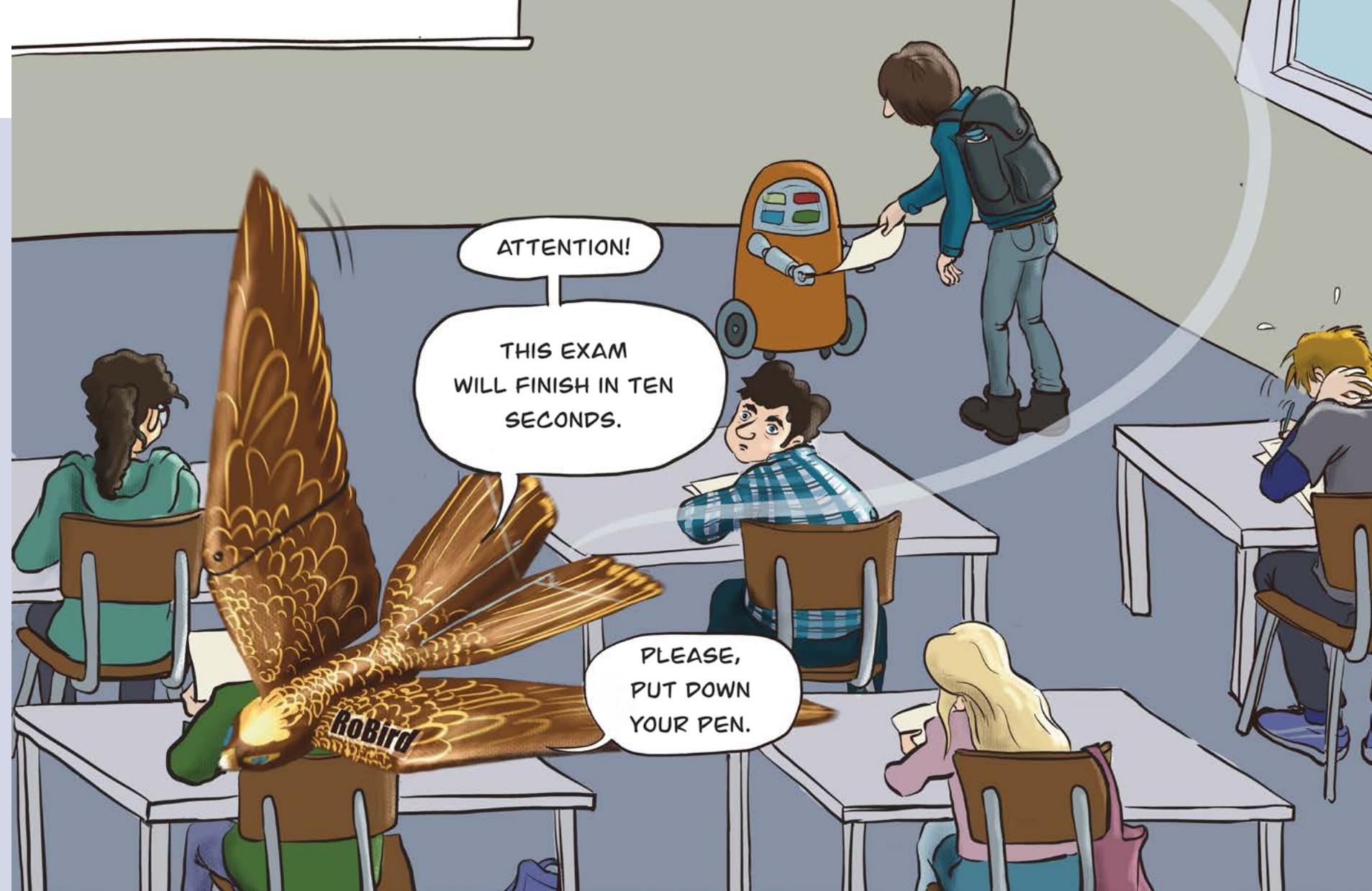
It is very unlikely that the future vision of a robot taking over all human tasks will be realised in the short term, the assistant professor continues. In reality, robots often learn only one or a handful of very specific tasks. Moreover, it by no means makes sense to automate everything. 'The use of a robot can be much more expensive than employing low-cost workers. As a result, introducing a robot does not always make good business sense either. In addition, there are all kinds of ethical questions to consider, take healthcare for example. And would you want to fly in a plane that has no human pilot on board, only a robot?'

Janssen says most people continue to rely on human labour for the time being. Therefore, a less holistic view of robot use is more valuable, the assistant professor argues. 'Above all, we should look at the different tasks a robot can perform. Distributing medication in a nursing home could be a perfect job for a robot, but we might want to leave the actual care of patients to nurses.'

## PEOPLE WILL STAY IN CONTROL

Sarthak Misra, UT professor of Surgical Robotics, is an expert on robots in healthcare, in minimally invasive surgery in particular. Together with his team, he runs the Surgical Robotics Laboratory, which has laboratory facilities at both the UT and the University Medical Center Groningen (UMCG). The aim of the laboratory is to develop new robots and techniques to access difficult-to-reach places within the human body. 'We're developing microrobots as well as larger snake-like robots. Our technology allows us to make procedures less invasive, more accurate and faster. Much of the hardcore research and engineering work is done at the UT, while clinical testing of prototypes takes place in our lab at UMCG.'

As to whether his robots will solve the staff shortage in the future, the professor dares not say. But according to Misra, a clinician will be better able to concentrate on the procedure, thanks to a robot taking over simple tasks. As a result, fewer assistants will be needed in the future. Robots can also help in training new clinicians, the professor adds. 'A relatively young surgeon can perform complicated interventions sooner with the help of a robot, because many tasks will be automated. This allows us to





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train clinicians faster, which in turn helps solve the staff shortage.' During surgery, the clinician stays in control, the professor stresses. 'A doctor will always be the one making the crucial medical decisions; a robot is not capable of making a series of complex analyses – the technology is not quite there yet. But when it comes to very precise and repeatable tasks and recognising patterns, a surgical robot can be of immense help.'

Above all, robots allow for better patient care, Misra argues. And better healthcare ultimately leads to fewer patients and fewer support staff needed to care for patients. This reduces pressure on the healthcare system, thus being possibly the most important contribution made by robots in solving the staff shortage. 'Take open-heart surgery, for example. After such an operation, the patient faces a long recovery. Surgical robots allow us to make the procedure less invasive, reducing the amount of time a patient has to stay in hospital. That means less nursing care and lower costs.'

Misra's microrobots should also lead to better, personalised care. In addition, the microrobots can be put to good use in prevention and early diagnosis, making people less likely to end up in the hospital for long periods of time. 'Using microrobots is basically like swallowing the doctor,' the professor explains. 'Our micro-robots can have sensors and medications for on-site diagnosis and deliver drugs precisely at the diseased area within the body. This can be done without causing damage to healthy tissue.' However, Misra emphasises, the technology is not yet ready to be applied in everyday clinical practice. 'We're still far removed from having fully autonomous microrobots performing interventions in our bodies. Hopefully, this will become a reality in the future – maybe in my son's lifetime. That's my dream.'

**INTELLIGENCE**

In short, the full robotisation of healthcare is still some way off. In fact, care personnel will remain indispensable. But what about the manufacturing industry, a sector that traditionally leads the way in introducing new technology? Ian Gibson is a professor of Industrial Design Engineering at the UT, and is also scientific director of the Fraunhofer Innovation Platform for Advanced Manufacturing (FIP-AM@UT). Among companies, he has noticed a growing interest in robotics as a solution to the tight labour market. 'Remarkably, this mainly concerns sectors that employ a relatively large number of highly skilled personnel, where it would take a lot of time to fully train a machine operator, for example. Companies are concerned that if these people leave, productivity will drop and it will be difficult to find suitable replacements.'

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According to Gibson, robots are expected to become prevalent in the workplace soon. They also developed some demonstrators for industrial manufacturing at FIP-AM@UT, which allow companies to see very concrete possibilities for the near future. However, Gibson also makes a critical observation. 'If we take a look at the impressive machines made by Boston Robotics, the world-leading mobile robotics company, or the developments in autonomous vehicles, you'd think we're almost there, and that it's just a matter of developing the applications. But that's something I've been expecting for 30 years now. Apparently, things are never quite as simple as they seem.'

Gibson argues that the biggest robotics developments in the manufacturing industry are those in the field of intelligence. 'In the early days of industrial robotics, the automated task was separated from the human environment to minimise the risk to humans. Sensors were developed primarily for performing the robotic task and not for monitoring other things in the immediate environment. Nowadays, there are more and more robots that can monitor other things in addition to their primary task, in order to adapt to disturbances in the workspace. I have the impression that we're getting pretty close to robots with limited decision-making capabilities that can function alongside human operators in an industrial environment.'

**CULTURE**

It is precisely this continued development of intelligence that may lead to robots working increasingly with rather than alongside humans in the future. Such collaboration will change the culture within an organisation, Janssen knows. Employees will be given different roles and responsibilities. 'We've seen this in studies on the introduction of the Da Vinci robot in hospitals, for example. This robot is a sort of extension of the surgeon. Because of the robot, the surgeon is far away from the patient, which gives nurses more autonomy and responsibility. The surgeon's role changes from a team leader to more of a solo specialist. In addition, the small group that is able to work with the Da Vinci robot differentiates itself from other employees in the hospital, changing the dynamics within the organisation.' Janssen herself conducted research into the introduction of robots at Utrecht University, among other things.

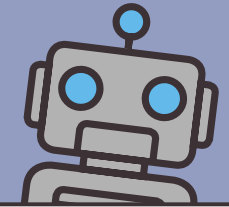
'My research group consisted of cleaning staff, who were provided with a robot vacuum cleaner. However, the introduction turned out to have little effect on mutual relationships and cooperation. Things only really get interesting when new technology permanently affects an organisation, as was the case with the introduction of the Da Vinci robot. That's when the culture of an organisation really changes.'

For most companies and institutions, this is not yet on the horizon, argues the assistant professor. 'Every profession consists of a tremendous number of small tasks and activities. Take the US company Amazon as an example. They use robots in logistics to move orders around a warehouse, but the packing of a parcel – a fairly simple task – is still done by humans. So far, robots have mainly been used to alleviate workload. It's incredibly difficult to automate an entire job position with several tasks, not to mention all the duties of a nurse or teacher. But in the future, robotisation will definitely affect professions. People need to prepare for this by learning new skills.' Meanwhile, the assistant professor also makes a critical observation. 'If it were really that easy for us to replace people with robots, wouldn't we already have done so on a much larger scale?'

Perhaps expectations are too high. As the UT experts' stories show, robots are not going to solve the staff shortage any time soon. New technology provides alleviation and support, but when it comes to performing a multitude of complex tasks... humans remain irreplaceable. •



# TWENTE ROBOTS IN THE WORKPLACE



**ROBIRD** is perhaps one of Twente's most well-known robots. It is the result of research by Stefano Stramigioli's UT department for Robotics and Mechatronics. This robotic falcon was initially developed to chase away real birds at airports. It was first deployed at an airport in 2017. The robotic bird can also be used in agriculture or as a surveillance robot in the security sector.

**RAVI THE ROBOT**, a creation by UT researcher Edwin Dertien, is currently starring in a theatre production. The robot – which still has to be operated by Edwin behind the scenes – plays one of the leading roles in a musical family show.

Although **ROBOTTEAM** Twente's football robots have yet to triumph over a real football team, the student team hopes that their annual participation in the RoboCup will ultimately lead to a victory over a human team by 2050.

In 2017, UT researchers introduced **STORMRAM 4**, which at the time was the smallest and most accurate 3D-printed biopsy robot in the world, according to its creators. Because Stormram 4 is made of plastic, the robot can be used in an MRI scanner. Taking a biopsy during breast cancer examinations in an MRI significantly increases accuracy.

In 2013, **FROG** (Fun Robotic Outdoor Guide) made its first appearance as a tour guide at the Royal Palace in Seville, Spain. The robot's role was more than that of a mobile audio guide, using augmented reality to project information and adjusting its tour based on the emotions that could be read off visitors' faces. Frog was part of a European research project involving UT professor Vanessa Evers and her team.

Say goodbye to dirty windows thanks to the window-cleaning robot developed by UT spin-off KITE Robotics. Using a clever algorithm, the robot can find its own way across large surfaces of glass. **KITE** is doing well and has already established a substantial customer base.

**PIRATE**, that is the name of the snake-like robot UT researchers have been working on for many years. The robot should facilitate the inspection of complex tubing systems by doing it both faster and more accurately than a human could.

**ROBOT ZENO** can be found in the classroom. The robot is the result of a European collaboration by UT and helps children with autism recognise their own facial expressions and cope with emotions.

University of Twente has bundled its expertise in robotics into the Robotics Centre, which will officially launch this spring. More information: [www.utwente.nl/robotics](http://www.utwente.nl/robotics)





## RISING ENERGY PRICES

Increasingly higher energy prices are also affecting UT students and employees. The human resources (HR) department is coming up with a support package for UT employees who are in or at risk of distress due to the inflation and increased energy prices. The most notable tool is an anonymous helpline, which people can use to confidentially discuss their financial troubles. HR also hopes to rapidly launch a survey on the extent and nature of the problem among employees.

Housing corporation De Veste has informed campus residents that gas prices for the last three months of 2022 will increase enormously. The price will be roughly ten times more expensive, resulting in a hefty surcharge for students in 2023. •

## ESPORTS LOUNGE OPENED ON CAMPUS

Predator Esports lounge has been officially opened at the University of Twente. Serving as the centre for all gaming and esports enthusiasts, the lounge is located in The Bastille, in a space formerly occupied by restaurant De Stek. It offers gaming booths, a large bar and many fast computers. Thanks to this project initiated by Student Union, Blueshell Esports and Esports Team Twente, the UT is now the first university in the Netherlands with its own gaming lounge. •



## UT RESEARCHER PUBLISHES IN SCIENCE MAGAZINE



UT researcher Florence Metz co-authored an article published in Science Magazine this autumn. The piece analyses why countries react so differently to energy crises, such as the one caused by the war in Ukraine. 'I'm a political scientist, so it is rather exceptional for me to have a publication in Science', says Metz. She is an Assistant Professor of Governance Resilience at the University of Twente. She has a background in political science and public policy and her research focuses on the policies that governments adopt and why they do so. •

## PETER-PAUL VERBEEK NEW RECTOR OF UVA

After thirty-five years, university professor Peter-Paul Verbeek bade farewell to the UT. As of October 2022, the Philosophy professor serves as the new rector magnificus of the University of Amsterdam (UvA). 'It almost feels like disloyalty to leave a place where you've been treated so well for 35 years', said Verbeek. 'I love it here in Twente and I'm definitely not leaving out of discontent. I have absolutely nothing negative to say about the UT. But the position of rector at the UvA was simply an offer you can't refuse.' •



## RENOVATION OF CITADEL

The renovation of Citadel is almost complete. After months of work, the building has changed beyond recognition, with more light and an improved climate system. The renovation started in the summer of 2021.

Several renovation scenarios were reviewed during the planning process in 2020, and the final decision was to partially strip the building. The outer wall, window frames and cable ducts have not changed. Inside, on the other hand, everything has been renewed, including all the glass, roofing, ceilings and insulation. 'Everything was upgraded to today's new-build requirements. That way, the building can be used for many years to come,' says project leader Stef Migchelbrink. •







## 'IT'S THE HUMAN SIDE OF THE JOB THAT DRIVES ME'

Susanne Wichman has been UT's Secretary General for almost five years now. We ask her five questions about her role and duties.

### 01

#### WHAT DOES YOUR ROLE ENTAIL?

'A popular misconception is that people see me as the fourth member of the Executive Board. That is emphatically not the case. As Secretary, my role within the university is directing and connecting, especially behind the scenes. I try to ensure at all levels that issues, dossiers and processes progress in the right way. That means switching gears a lot, coordinating, giving direction and above all, offering advice. I do this not only for the Executive Board, but also for all kinds of committees and bodies, including the Supervisory Board. In addition to my role as UT's Secretary, I'm also Director of General Affairs. This service includes the Internal Audit department, the Ombuds officer, the Diversity, Equity & Inclusion team and our Integral Safety Manager, each with their own role at UT.'

### 02

#### WHAT ARE THE MOST VALUABLE ASPECTS OF BEING SECRETARY FOR YOU?

'The job title implies that it is primarily about reporting. And that's part of it – in a way, as secretary, you build up the collective memory of the organisation. However, it's the human side of the job that drives me. I like to bring people together and try to create mutual understanding within the organisation. In doing so, I prefer to ask questions rather than give answers. That way, I encourage people to arrive at answers themselves.'

### 03

#### THE CURRENT EXECUTIVE BOARD HAS BEEN OPERATING IN THIS COMPOSITION FOR OVER A YEAR NOW. HOW IS THAT GOING?

'Very well. All three of them are very interested in each other's dossiers. Another thing that strikes me is that there is not much managerial distance with this board – less so than with previous boards. They're right at the centre of the organisation; they offer a sympathetic ear and are accessible, approachable and prepared to place themselves in a vulnerable position. If things are not going well, it is brought up. As a result, others also abandon their diffidence and speak their minds.'

### 04

#### WHICH DOSSIERS ARE YOU SPECIFICALLY WORKING ON AT THE MOMENT?

'Among others, diversity, equity & inclusion, social safety, a student well-being program and recognition & rewards. These are themes that are somewhat overarching in nature and run like a common thread through other topics and processes within the university. This is particularly true of social safety, a topic that seems more socially urgent than ever this year. As a university, you follow along with that.'

### 05

#### WHAT APPROACH WAS TAKEN?

'Strengthening our support structure. We've had study advisers, HR advisers, confidential advisers and a complaints committee for many years, but no Ombuds officer, Diversity, Equity & Inclusion team or Integral Safety Manager yet. Now, the task is to further bring together and coordinate the support structure we've built up. However, we explicitly do not opt for a single point of contact for everything concerning social safety, except for acute emergencies. In my opinion, that would only raise the threshold for people who are primarily looking for a sympathetic ear. We do ask ourselves within the support structure whether we see common threads, whether people are able to find their way to the help they need and whether they are actually getting help. And what's important is that we continue to talk to each other, with trust and credibility as a basis.'

# CAMPUS QUOTES

The brightly decorated coffee corner adorned with pictures of my head completely escaped my notice while on my way to my office in the morning, even though I passed right by it. But it wasn't until I discovered that my own room was filled with balloons and garlands that the penny dropped: my 25th anniversary at the UT! Why, thank you, thank you very much. In fact, they were way off. They hadn't counted the first two-and-a-half years, for HR reasons. But that's a minor detail; delayed presents and cake are more than welcome too.

After more than 27 years, I still very much enjoy working at the UT. Perhaps my publications in U-Today sometimes give a different impression, because *Was sich liebt, das neckt sich*\*. The need to share your work enjoyment with others differs from person to person. After a successful meeting, a colleague would sometimes cheerfully ask: 'Didn't you all have a great time?'. Occasionally, some people, including myself, would awkwardly mutter something like 'oh yeah, sure'. I clearly belong to the vast majority of wet blankets who enjoy their work, but rarely express it on their own accord.

However, there are also times when the feeling of having an amazing job at an amazing place overwhelms me, and I, being rather introverted by nature, would like to share this with you. When that happens, I'm usually not actively at work myself, but I can taste the atmosphere on campus. I walk down the Diagonal in Carré and weave through groups of excited students who just had or are on their way to classes. Cycling across campus, I see a student lying on the ground trying to photograph a tiny object placed on a surface of cardboard. A few other students look at it with fascination and make comments. Remarkably well-dressed parents carrying a bouquet of flowers, siblings, and sometimes a grandfather or (more often) a grandmother, are in a rush to be on time for a graduation ceremony. Seated on the bench near the Koelcirkel, I see students studiously tinkering with a mysterious object made of wood, cardboard, PVC pipe, aluminium foil and metal wire. They point the contraption at the Horst Tower, and what happens next...? I truly have no idea.

\* Teasing is a sign of affection



I overhear snippets of conversations that tell me something about what's on students' minds, whether it be about their studies, the student life surrounding it, or their personal lives. Maybe I'm just getting slower, but I have a strong impression that young people have started talking faster and faster over the years, so the information density has increased. Here are a few quotes. The funniest: 'How long have they been married?'. 'I don't know, they're your parents'. The most intriguing: 'It's only in the bedroom that you can tell he's Christian'. The most thoughtful, during a tutorial: 'You're awfully quiet, you're not saying anything. Are you okay?'

It's the students, who entrust our university with their education for a number of years and who come and go, generation after generation, that make the university a unique and dynamic workplace. Whenever I need a pick-me-up, all it takes for me is a walk across campus and through the buildings. •

**Wiendelt Steenbergen**  
Professor of Biomedical Photonic Imaging





# GEO-HEALTH RESEARCH KNOWS NO LIMITS

COVID-19, ACCESS TO SAFE WATER, TICKS, OBESITY, IMPACT OF HEATWAVES... ALL OF THESE TOPICS HAVE BEEN 'PUT ON THE MAP' BY SCIENTISTS AT THE GEO-HEALTH RESEARCH GROUP OF THE UNIVERSITY OF TWENTE. 'THERE IS NO LIMIT ON TOPICS THAT COULD BE EXPLORED WITHIN GEO-HEALTH,' SAYS PROFESSOR JUSTINE BLANFORD, THE HEAD OF THE CHAIR AT THE FACULTY OF GEO-INFORMATION SCIENCE AND EARTH OBSERVATION (ITC).

**T**he relatively new research chair links health and disease in space and time, studying where and when diseases occur, and helping us understand why they may be prevalent, who may be affected and how to address the problem. 'It applies to human diseases, but also to plant and animal diseases,' clarifies professor Blanford. 'It allows us to look at the given issue across different temporal and spatial scales, and to figure out what the drivers are and how to minimize the risks.'

'Geo-health is very important, because having things 'on the map' makes it much easier to keep track of what is happening,' continues Blanford. 'Just think of the COVID-19 pandemic. Thanks to geo-spatial technologies, there were already tools in place that allowed us to capture how the disease was spreading.' Ultimately, scientists can produce knowledge that decision makers can also apply for prevention. 'It's not only about mapping diseases,' says the professor. 'We have also done studies on access to healthcare and water. Having access to facilities makes it much easier for people to participate in prevention. For example, we looked at accessibility to COVID-19 vaccine centres in the Netherlands by bicycle, and how this might change once the centres started shutting down.'

Another coronavirus related study looked at how we could use wastewater surveillance to predict outbreaks at a municipal level.

'We conducted a study using data on COVID-19 infections and viral load of coronavirus in wastewater, analysing their associations in space and time,' says Carmen Anthonj, Assistant Professor of Water, Health and Decisions at ITC. 'We concluded that wastewater surveillance can indeed serve as a very suitable tool to predict future outbreaks, indicating in advance where there might be high numbers of patients. This is a nice example of how we can use geo-health data and analysis to inform public health-related decision making and targeted interventions.'

## WATER AND HEALTH

Anthonj's Tenure Track chair focuses on the links between water and health issues, and the use of related data to inform decisions. 'I mainly look at topics that are connected with the United Nations Sustainable Development Goal (SDG) #6: access to water and sanitation for all, and SDG 3: good health and well-being for all at all ages. I look at how water, sanitation and hygiene (WASH) infrastructure and behaviors can promote human health and how they can impair human health,' explains the scientist. 'I look at how WASH can prevent water-related infectious diseases. I study how the situation differs in different regions and among different populations in low-, middle- and high-income countries. Likewise, I look at water and health from a broader perspective, in order to understand implications of flooding on WASH and health infrastructure.'



'This theme always sounds easier than it is,' stresses Anthonj. 'Access to water – sounds so simple; but WASH marries so many different topics: access to water, quality of the water, type and state of sanitation facilities, waste management infrastructure, personal hygiene and, related to all of these, people's risk perceptions and resulting healthy or unhealthy behavior. WASH combines information about physical infrastructure, but also social sciences. Even if the infrastructure is great, people need to know how to use it.'

'It is quite complex,' says Carmen Anthonj repeatedly. The need for research and solutions to the challenges is, however, very straightforward. 'It all comes down to this,' states the scientist. 'In 2019, according to the Joint Monitoring Programme of UNICEF and WHO, there were 2.2 billion people on this planet lacking access to safe drinking water. Half of global population lacked access to safe sanitation. There were 3 billion people lacking access to hand washing facilities with soap. And more than 670 million people who practiced open defecation, meaning they had no access to restrooms. This is all connected to disease exposure, and ill-health. Every day, more than 700 children under the age of 5 die due to diseases resulting from the lack of WASH services. WASH to us might sound like nothing to worry about; but it is a major cause of death worldwide.'

And access to WASH differs across space – and time, adds the assistant professor. 'If decision-makers have the right information, they can improve access to WASH to prevent diseases, and promote health when and where needed. Our job as researchers is to make sure that there is data, that the data is understandable, and that it reaches those who have the means to improve the situation.'

**WASH IN SCHOOLS**

'Access to WASH is a human right,' says Kasandra Mingoti Poague, PhD candidate working with Carmen Anthonj. 'I work with WASH from the social perspective focusing on minorities living in vulnerable situations.' Her PhD research focuses on WASH and its connection to COVID-19 in schools in Brazil. She aims to see if schools have suitable WASH infrastructure to deal with the COVID-19 pandemic and other future pandemics – and therefore what we could do to make schools more resilient for the future. 'When we think of access to water and sanitation, we often only consider the household environment. However, children spend a large portion of their day at schools and they need access to the same services there. With COVID-19 we could clearly see that diseases impact population

groups differently. When it comes to students and pupils, it also impacts their cognitive development, which is why we need to consider the situation in schools.'

'I have a background as an environmental engineer, and I see a huge value in geo-health,' adds the doctoral candidate. 'Engineering is often separated from medical expertise and public health knowledge, but we need to combine everything in order to properly assess how WASH links to diseases.'

**HEATWAVES**

'Geo-health has a huge potential. Looking at a problem in a spatial way is very important for understanding and visualizing the patterns,' agrees Carolina Pereira Marghidan, UT Master's student who has been researching heatwaves and its impact on human health. 'We know that heatwaves are increasing on a global scale; and we know that heat has impact on health. The well-known example shows that the 2003 heatwave in Europe caused over 70,000 deaths. We know this, but there is a lack of research and data on the connection of heatwaves and health in low- and middle-income countries, and especially African countries.'

Marghidan's research has focused on Mozambique, one of the poorest countries in the world – and one of the countries prone to many climate risks such as cyclones, floods, and droughts. 'The risk of heatwaves is not on the radar in Mozambique,' says the student. 'My goal was to increase our understanding around heatwaves and their impact on health. I started by looking into when, where and how heatwaves occurred in Mozambique in the past thirty years, using a newly developed high-resolution temperature dataset. I wanted to see if they were forming a pattern, if they were getting longer or stronger, and more common.'

'In geo-health, it's important to not only do research country-wide, but also to zoom in on smaller areas, to see where the problems are the strongest,' adds Marghidan. Her research concentrated on Maputo, the capital city of Mozambique, for which she created a vulnerability map. 'I took different vulnerability factors, such as very high and low age, lack of green spaces in the area and so on. Based on these indicators, I could show which areas of the city might be most vulnerable to heatwaves. This could help local decision makers to come up with targeted strategies. For example, if you want to raise awareness among older adults, you can target specific neighborhoods with high concentration of elderly inhabitants, you know where you

could provide more water stations and so on. Such an index can help target a whole range of interventions.'

Carolina Pereira Marghidan was able to establish that there is a significant increase of heatwaves in Mozambique. 'Unfortunately, we don't yet know their exact impact, because there are many challenges with regards to the availability and quality of health data,' she says. Running into data challenges is not an uncommon hurdle within geo-health research. 'Which worries me a lot. Only the full picture can serve the most vulnerable people. Heatwaves are a silent disaster. You can't see the damage directly with your own eyes, and so it is harder for people to understand the risk. That is why the impact of heatwaves are always underestimated, especially in low-income countries. Recognizing the link between climate and health is still very recent and the knowledge that heat causes health problems is very low in Mozambique. It's a hot country, and so the local people don't necessarily recognize the climate is changing, that the temperatures are rising, and that they are becoming more

vulnerable. Local doctors might not even recognize that certain health problems are caused by heat. We need to urgently know the full gravity of the situation so that we can take appropriate action.'

**LABOUR SHORTAGE**

Indeed, there seems to be no limit on topics that could be explored within geo-health – as evidenced by the variety of research at the UT alone. The scientific field has a lot to offer, but oftentimes its potential isn't realized. 'Unfortunately, geo-spatial sciences is still missing from a lot of epidemiology and public health curricula, and so it is not being used to its full potential in different fields,' says Justine Blanford. 'We are trying to change that at the UT. Last year, we launched a geo-health course to bridge the gap. It allows public health professionals and epidemiologists to learn about geo-spatial tools and how they can be used for different aspects of health. Geo-health can bring a lot to the table. To address different health risks you need spatial and temporal data so that we can start to understand the full picture.' •



**i**  
FROM LEFT TO RIGHT  
Kasandra Mingoti Poague  
Carolina Pereira Marghidan  
Justine Blanford  
Carmen Anthonj





KISHORE SIVAKUMAR

## 'TEACHERS PRACTICALLY HAVE TO BE IT EXPERTS'

WHAT MAKES A GOOD TEACHER? WHERE DOES SOMEONE GET THE PASSION AND INSPIRATION TO PRESENT SOMETIMES DRY MATERIAL IN AN EQUALLY FASCINATING AND UNDERSTANDABLE MANNER? IN THE 'MEET THE TEACHER' SERIES, WE INTRODUCE YOU TO UT STAFF MEMBERS WHO ARE TRULY DEDICATED TO EDUCATION AND HAVE A STUDENT TELL YOU ABOUT THEM. IN THIS EPISODE, STUDENT MILAN GOMES IN CONVERSATION WITH KISHORE SIVAKUMAR (29).

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As Sivakumar talks about and reflects upon his classroom performance, Milan Gomes nods along during moments of recognition. The 21-year-old University College ATLAS student has attended numerous of Sivakumar's classes and shares the outlines of his vision on education. He recalls a particular lecture by Sivakumar on brainwaves. Complicated subject matter that he could not really relate to. 'But as a teacher, Kishore is very good at taking difficult subject matter back to basics, so that everyone has a proper understanding of the content, and then delving deeper into the topic with the students. If you have that skill as a teacher, you really make a difference.' This puts a contented smile on his teacher's face. 'Thanks, Milan.'

### LEARNING COACH

Both share the view that the role of teachers - especially those at university institutions - is changing, although they both have finer points to add. According to Sivakumar, it is not so much that the role is changing, but that today's teacher has to be more versatile than ever before. He believes that just imparting knowledge is not enough. They must also assume a leading role and provide more depth. According to Gomes, it's not just about being more versatile; above all, the teacher's role has become more complex. This is something he has also noticed with his mother, who is a teacher at an educational institution. The teacher's primary task - imparting knowledge - is also her main concern, he says, but he believes that qualities such as responsibility and coaching competences are increasingly important. 'And think of all the systems teachers have to manage and keep updated. They practically have to be IT experts.'

Sivakumar has been employed at the UT for over two years and has been buzzing around campus like a busy bee since his very first day at work. The diligent researcher - born and raised in India - is not just an avid teacher - both at ATLAS and the BMS faculty - he is also almost halfway through his PhD studies. His research focuses on the development of new pedagogical designs and tools at the intersection of educational sciences, engineering education and philosophy of science.

### INSPIRATION

Sivakumar has put a lot of thought into the question of what makes a good teacher. According to him, it is very important for a teacher to know when they are making a difference. Inspiration plays a central role in this regard. Not just in traditional teaching, but especially in contact with students. He draws this conclusion

based on his own experiences as a student. When he was a young student, he had many teachers who were able to explain things in a clear way, but did not connect with him the way other teachers could. So where lies the difference? In their inspiration. According to Sivakumar, you can only inspire others as a teacher if the subject matter you are explaining also greatly interests you personally. Only then can you be deeply passionate.

He believes that inspiration and passion are also the core values that make the difference between a good and an even better teacher. Being transparent. What do I stand for as a teacher? Which direction do I want to take? According to Sivakumar - who previously studied in Madras and Paris - every teacher makes a difference in their own way. But in terms of his own measure of success, he only feels useful when he can 'make a little impact' on society through a student.

### EXPRESSION

Leading, inspiring, engaging. Sivakumar feels that the qualities by which he tries to stand out are best conveyed through non-verbal communication. As a result, online teaching was extremely difficult for him - especially during the lockdowns. And it still is. He considers himself a teacher of interaction and expression. Suddenly, all that was no longer possible. He recalls one final class of a semester when he finally got to teach his class face-to-face again. Gomes - who nods affirmatively and smiles - was also part of this class. It was only then that he realised the importance of expression. Because that particular class was unlike any previous one, he says, even though the subject matter hardly differed.

Striving towards innovation, enthusing students with new concepts and information, or even experimenting with emerging forms of instruction, such as blended learning. These are things that make Gomes happy as a student. And what Sivakumar enjoys most - even though he knows it is a huge cliché - is when a student has a Eureka moment. When someone gets a twinkle in their eye, or starts smiling when the penny finally drops. Playing a small role in students' acquisition of knowledge, that's what I do it for.' •

*'Kishore is very good at taking difficult subject matter back to basics'*

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BRECHJE MARÉCHAL

# 'IF WE CAN'T DO IT, WHO CAN?'

'MAKING ENVIRONMENTALLY FRIENDLY CHOICES DOESN'T REQUIRE MUCH EFFORT FOR ME,' SAYS BRECHJE MARÉCHAL (47), ENVIRONMENT & SUSTAINABILITY POLICY OFFICER AT THE UNIVERSITY OF TWENTE. INDEED, CARING FOR NATURE SEEMS TO COME NATURALLY TO HER; BUT - AS SHE MENTIONS HERSELF - SUSTAINABILITY CAN MEAN MANY DIFFERENT THINGS. 'I AM TRYING TO MAKE THE UT MORE SUSTAINABLE, BUT THAT IS NOT ALWAYS TENABLE FOR ME.'

**T**here wasn't one specific reason as to why Maréchal became interested in sustainability. But there was a moment. A moment when a teenager in Brabant decided to stand up for the environment. 'When I was about sixteen years old, a teacher at school attempted to make a joke about throwing waste in nature,' she says. 'It made me angry and I told him that it wasn't cool, that you should take care of the environment, not destroy it. In my memory, the entire class turned around when the teacher asked me to repeat what I had said. I considered just being quiet, but in the end I dared to stand up for what I believed in. And I have never stopped since.'

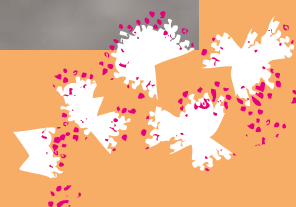
Evidence would suggest this to be true. When offered a coffee in Starbucks during the interview, Brechje Maréchal first checks if the beverage can be served in a ceramic cup. The answer, sadly, is no. No ceramic cups are available. 'Then I'll stick with my water,' responds the Policy Officer. She also doesn't own a car, prefers to cycle everywhere, has been a vegetarian for almost thirty years, and shops locally at the open-air market to minimize the use of plastic packaging. 'All this is quite easy for me. Making environmentally friendly choices doesn't mean getting less, it just means being conscious.' This is a lesson that can be applied anywhere, as Maréchal knows from her very diverse life experiences.

## ALL AROUND THE WORLD

Honduras, Colombia, USA, Philippines... These are only a few countries on the list of Maréchal's past residences. In fact, Twente, where she has lived for seven years now, is the longest lasting homebase she's had since leaving her parents' house. Her love for new challenges and exploring different corners of the world might have started during her 'personal development trip' to Kenya in 1996. 'When I was studying in Wageningen, I decided to switch study programmes and focus on the tropics, but I had never been to the tropics before. So I went backpacking in Kenya. Overall it was an amazing experience. Back then, there was no email, no mobile phones, credit cards barely worked. I was volunteering at an organic farm, where I didn't understand the local language. During this trip, I learnt how to deal with loneliness – it helps you not to limit yourself and deprive yourself of experiences.'

A couple of years later, Maréchal did an internship at a research institute in Colombia, where she also met her husband. ('He is from Wales, but he was working there at the time.') The next trip was to Honduras, to work on her thesis. 'I was living in the middle of nowhere, four hours away from anywhere, in an area with only radio contact. I was studying erosion in farmers' fields, but also the





*‘If you can, choose the option with the least environmental impact’*

perception of farmers, because I saw that they didn't necessarily speak the same language, or used the same terminology as scientists did. I think that was the first time I realized how important it was to find a common language. It's the same with sustainability. You might be having a discussion about a sustainability issue, but you both might be talking about something totally different. For me, sustainability refers to responsible use of resources and minimizing emissions. But that is still too abstract for many people.'

'I have lived in many different places. We moved around a lot mainly due to my husband's work – he is professor in Spatial Agriculture and Food Security. I worked in many different areas - community development, teaching, research and outreach. I got my Master's degree in the Philippines, where I also worked at a research institute on sustainability in the rice value chain. It's so valuable to have these experiences,' says Maréchal. 'It's so important for young people, students, to be exposed to different cultures. At the same time, at the UT we encourage people to be conscious of how they travel. A lot of the CO2 footprint of the UT comes from people's commute and from business or study travel. If you can, choose the option with the least environmental impact. Take the train within the 800 km radius. We ask people to consider alternatives, but we also try to facilitate these alternative options. We want to make it easier for people to make the more environmentally friendly choice. All the effort shouldn't just be coming from the employees, we need to facilitate this. Yet, everyone can make choices that make it easier to be more sustainable. For example, if you are organizing a conference, don't organize it near an airport, organize it near a train station. And offer hybrid attendance.'

#### FROM POLICY TO ACTION

In her role at the UT, Maréchal is the programme manager of the Sustainability, Energy and Environment (SEE) programme which was set up mid-2018 to structurally work on improving the SEE performance of the university. Based at the Campus and Facility Management department, she also manages the environmental permit and works to meet all requirements associated with it. She jointly coordinated the working group on sustainability for the new UT strategy Shaping 2030, participated in the Shaping Expert Group on sustainability and developed the sustainability policy for operational management.

'When someone from my running group shared this vacancy at the UT, I thought this job was written for me. I had a lot of ideas. In my position I focus on making plans to meet the sustainability ambition of the university, collecting information and providing transparent reporting. A large part of my job is to kick-start sustainability projects. I drafted the sustainability policy using a lot of input from many colleagues and students. Sustainability is now on the agenda at the UT, but it needs to be integrated throughout the organization. To make real changes, we need support and input from the faculties and departments. As the sustainability team, people sometimes expect that we know everything and can be involved in everything, but we can't be everywhere.

Everyone needs to consider sustainability aspects when they take decisions or plan projects.'

'I feel that a lot has changed at the UT since 2018, when I started working here,' says Maréchal. 'We have achieved a lot in making sustainability visible. The next step after policy making was developing implementation plans. We needed to translate our goals in to action. We have set our ambitions and now we focus on making progress. With the current high energy prices, there is even more incentive to be conscious of our energy consumption. Becoming a sustainable organisation is not a straight path. We try, fail, try again and succeed. The last thing we want to do is greenwashing. We want real progress but sometimes we can only take small steps, because the organisation isn't ready yet for big steps. I find that very hard. Yes, we focus on where we can make the most impact – energy and mobility -, but besides impact you need support in the UT community. And for that, you also need to focus on visible measures that may look like small steps. For example, work lunches recently became vegetarian as default. Continuing to take many small steps leads to large steps being realised.'

#### TIME AND COMMITMENT

Overall, Maréchal is happy with her decision to settle down in Twente. 'I had a bit of a reverse culture shock when we moved here. People assume that because you are Dutch, you know how to arrange everything, but I didn't even know how to rent a house. I was overwhelmed by all the choices in the supermarket, I wasn't used to shopping like that anymore. But I like living here. You can cycle everywhere and it's very easy to reach nature.' Being in nature is something she'd like to do more of these days. 'I'm very driven, but I'm also demanding – also with myself. I am working too hard. I am trying to make the UT more sustainable, but I should not forget to be sustainable for myself. I was also a board member of the GroenLinks party for a long time, but I stopped. I realise I have to take more care of myself. I try to take more time for sports, reading books – in summer in a hammock in the garden -, growing a few vegetables and enjoying life.'

When it comes to her wishes for the future, Maréchal wants to see the UT realize its sustainability ambitions. 'And I want to contribute to that, but I also want to make sure that I deal with myself in a sustainable way. I want to find more balance. The state of the world is affecting me, but I need to appreciate all the small steps to stay motivated and to believe that change is still possible. I know that many people in the sustainability field struggle with the same feelings. People have so many worries and priorities nowadays. How can we put sustainability on the top of their agenda? You need to make sure that they have time – physical time - but also just time to think. We need to allow people at the UT to commit time to sustainability. Because we can't adjust or lower our ambitions, not with the current state of the world. We are a university. If we can't do it, who can? Let's take a leading role.' •



# HIGH-FLYERS

With an actual circus on campus, students and former members of Cnødde celebrated their 50th anniversary in October. Ever since the 1970s, the College, as the members refer to their club, has been the ideal sanctuary for young gentlemen who don't just come to Enschede to study. The aim of the yellow-sweatered members is to excel in everything student life has to offer. To the outside world, it might seem a little loud and boastful – but hey... what do they know? Run any former Cnøddian through Google's search engine and you will find a glorious LinkedIn page that frequently lists 'CEO' as a job title. For the past 50 years, Cnøddians have been rising above themselves. They're true high-flyers, aiming for the sky. It is only in their own circus tent, when the Cirque de Cnødde reaches its peak, that they have to accept one lady soaring above them. But judging by the looks on their faces, they don't seem to mind at all. •





# CLAIRIFY CLEARS AWAY THE SMOG IN OUR BRAIN

FRESH AIR IN EVERY OFFICE SPACE. THAT IS HOW START-UP CLAIRIFY AIMS TO CONQUER THE WORLD. UT ALUMNUS WIM KAMERMAN, ONE OF THE FOUNDERS, TALKS ABOUT THE COMPANY'S JOURNEY. 'BECAUSE OF COVID-19, AIR QUALITY WAS SOON AT THE TOP OF THE LIST.'

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It is November 2019 when Wim Kamerman reports for the graduation ceremony of his Business Information Technology programme. As for many alumni, this day marks the end of an era and the beginning of a new one. For Kamerman, that new era began rather abruptly. While enjoying a beer, fellow alumnus Tibor Casteleijn told Kamerman about Clairify, a start-up he had set up with Felix van den Horst during an entrepreneurship minor at the University of Amsterdam. Casteleijn informed Kamerman that they had a spare ticket to Web Summit, a renowned technology conference in Lisbon. When would they leave? The next morning, at 6 am, from Schiphol Airport.

Clairify's founding trio found each other in an Airbnb in the Portuguese capital. They cracked down on an 'invisible problem', says Kamerman. 'When we consider the comfort of our indoor spaces, we basically look at four factors: temperature, acoustics, light and air quality.' And this latter factor in particular has always been overlooked, Kamerman argues. 'In spite of the fact that air quality has a demonstrably negative effect on a person's cognitive ability. Surely everyone has experienced that dull feeling, those moments when you feel like there's smog in your brain. These moments don't just come out of nowhere.'

## COVID-19

With that proposition in mind, the young entrepreneurs set to work. The sensor they built looks like a flying saucer and is capable

of measuring all kinds of things in an indoor space: from CO2 to perceived temperature, particulate matter and aerosols. This sensor is connected to analysis software and building management systems.

And then, suddenly, there was the COVID-19 crisis. 'Because of the coronavirus, awareness of the problem's magnitude grew enormously. Soon, air quality was at the top of potential customers' lists and they started to flock towards Clairify. Maybe not for the reason why we had started the company, but it certainly gave us a boost.'

For instance, CBRE, the world's largest real estate consultancy, approached Clairify for a pilot project. A'DAM Toren, Doctors Without Borders and the University of Amsterdam are also amongst Clairify's clients, and earlier this year, investors OostNL and Rockstart provided a financial boost. The company grew from three founders to a team of nine employees, with a head office and manufacturing environment in Enschede and a sales office in Amsterdam.

## SAYING NO

So everything seems to be running smoothly. Still, Kamerman takes a critical look at the company's developments. 'We're no longer in the phase where it's just three guys with a good idea. If you want to continue growing, you won't survive on sympathy alone. You want customers to come to you for rational reasons, because you offer a proven product that brings added value. There are other – more

commercial – laws that apply here. For us, 2022 was the year to learn how to add the most value to the market. That means developing an extremely solid and scalable value proposition, through which we want to achieve global impact.'

In doing so, the most important lesson is to make choices. 'The biggest danger is saying yes to everything. We prefer to do one thing incredibly well,' says the UT alumnus. For instance, the company made a conscious decision not to make a consumer product for a web shop; instead, Clairify is specifically focused on owners of office buildings. Kamerman explains why. 'In the past, there might have been a split incentive; why would a property owner be overly concerned about their tenants' employees zoning out? However, we believe the spirit of our times and the market are changing. Four walls and a ceiling are no longer good enough for tenants. Therefore, owners have to work on a future-proof property portfolio, and air quality plays an important role in this.'

## SAGRADA FAMÍLIA

Whether Clairify's approach bears fruit remains to be seen. 'Sales cycles in real estate are long. This makes validation difficult as well; we have to be patient.' But for Kamerman, that is what characterises entrepreneurship. 'It reminds me of the Sagrada Família in Barcelona, with all those cranes sticking out of the basilica.'



*'Air quality has always been overlooked'*

As a starting entrepreneur, you're also, in a sense, building while keeping your business running.'

Because even though Clairify is starting to look like a tremendous success story, Kamerman prefers to tell the honest story. 'It's very easy to think that everything is running like clockwork. An outsider sees the big picture, the upward trend. But what they don't see is the daily struggle and uncertainty. The fact that entrepreneurship is a leap of faith, with no guarantee of success. So you better make sure you enjoy the journey.' •

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# TOP SPORT AND STUDIES. DOES IT WORK?

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IN ADDITION TO THEIR STUDIES AT THE UT, THEY PUT IN LOTS OF HARD WORK TO EXCEL AS TOP ATHLETES. EVERY YEAR, THE UT HAS AN AVERAGE OF FORTY STUDENTS AND STAFF WITH A STATUS AS TOP-LEVEL ATHLETES. WHAT BENEFITS DOES THIS STATUS OFFER THEM? BELOW, A GLIDER PILOT, A TOP SAILOR AND AN FC TWENTE FOOTBALL PLAYER TALK ABOUT THEIR GREAT PASSION.

## KAYLEIGH VAN DOOREN (23) Business Administration student, top football player at FC Twente and member of the national team

'Before joining FC Twente, I played three seasons in the Eredivisie for PSV. I combined that with studying International Business Administration at Tilburg University. I was still living with my parents in Veldhoven at the time, but in addition to my football career, I was studying full-time. That was tough in the long run. Keeping those two balls in the air was too much for me. I constantly had to be at my best and that came at the expense of my rest. I would think about school during training and vice versa.

Wanting to take a step forward in terms of my athletic career, I transferred to FC Twente a year and a half ago. I never considered giving up my studies. There are players who focus solely on football, but I find it important to intellectually exercise myself, and I enjoy it too. I need that stimulus. I want to be able to completely immerse myself in something other than football.

I made a deliberate choice to spread my one-year master's programme over the course of two years. I train seven times a week, plus one or two matches. All training sessions are during the day, so I miss practically all of my classes. Every now and then, I can squeeze in an afternoon class or the occasional evening class, but I often have to make up for missed school hours in the evening. It's a shame that it's almost impossible to watch recorded lectures these days. That was an upside to the days of the pandemic: teachers made all lectures available online, which made it easier to understand everything. Now I often have to make do with the slides, but I miss the explanations. The top-level sports scheme offers me flexibility. In May, my preparations for the European Championships with the national team coincided with my exams. Fortunately, I was allowed to reschedule them. What's important in this regard is that the teacher is flexible and willing to cooperate. For example, I can sometimes do a substitute assignment if I can't be present. The responsibility to arrange everything lies with the athlete, so that requires pro-activity on my part. It would be helpful to have a top-level sports coordinator at the UT. Tilburg did have one, but I must say that here, things are at least as well-organised as in Tilburg.



I want to get my master's because I have to think about my life after football. If you can keep playing football until the age of 35, you've done very well. I hope to graduate while playing for FC Twente and have already been in contact with technical director Jan Streuer. There is plenty to do there in terms of management and innovation. Working in the football industry seems like an interesting prospect, be it in the policy sector or as a football agent. I believe it's still difficult for a woman to work in the male-dominated world of football. As a woman, you're more likely to be criticised. Nevertheless, that world does interest me.

My contract with FC Twente runs until the summer. What I will do after that remains to be seen; that also depends on my performance. I'm quite happy here at FC Twente. It's a very welcoming club that performs well and plays to win. I might stay in the Netherlands for a while longer, but I definitely have the ambition to play football abroad.

In February 2022, I was first selected to play for the Dutch national team and next summer is the World Cup in Australia and New Zealand. I really want to be there. I know I have a lot more potential, so I want to keep moving forward. I will focus on that, and the results will naturally follow.' •

*'I miss practically all of my classes'*

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## EMILIE VAN EPS (20) Creative Technology student and top sailor

'My father is a sailing enthusiast. He used to take us sailing from a young age. Although I was brought up on sailing, I only started to grow really passionate about it when I boarded a catamaran for the first time at the age of sixteen. I thought that was really cool. From that moment on, I actively searched out all the sailing camps and races. I was actually kind of a late bloomer: most top sailors start in primary school.

The past few years, I sailed a Nacra 15, a catamaran for competitive sailors. I've now switched to a larger boat, the Formula 18. The great thing about a catamaran is the speed and adrenaline. The boat often lifts out of the water and it's almost as if you're flying. Catamarans are real high-performance boats, quite different from a simple Optimist dinghy. Is it a dangerous sport? If you stay alert, it's not very dangerous. You might suffer a bruise or even a fracture once in a while. But there are no deaths.

I have a regular sailing partner. He handles the sails and I'm at the helm. In races, it mainly comes down to tactics. My strength lies in staying calm. At the start, all boats want to be in the same position, where the wind is most favourable. It gets pretty hectic at times with up to two hundred boats competing, and there are all kinds of priority rules. It's important not to get stressed at such moments, and above all, not to be too shy. If we have the right to a certain position, I will not move aside, not even for a forty-thousand-euro boat.

The training schedule for top-level sailing is pretty intense, with an average of twenty hours a week. During the winter, we spend three weeks at a training camp in Spain. I only train in the weekends; on

weekdays, I study in Twente. I find it quite easy to combine training with my Creative Technology programme. Fortunately, my teachers are flexible and I get certain exemptions. Whenever there's a race, I can always participate. It can be a bit of a hassle sometimes. I remember I had to take a test just before the Round Texel Race. I took it on the beach, with a laptop on my lap, via Microsoft Teams.

### *'Taking a test on my laptop at Texel beach'*

I live in Enschede on campus and I'm really happy there, even if it is a bit far from the water. I try to engage in as many social activities as possible outside my studies. I go out every now and then, but I prefer to do sports. I play football at Drienerlo, I'm a member of surf club Hardboard, I perform theatre sports and I recently started playing spikeball. I also work as a teaching assistant and last year, I was part of student team Solar Boat Twente. I try to work hard at university and not waste time, so I have time for fun things in the evening.

Last summer, we finished second in the Under 21 European Championships. It took place in Italy, in beautiful surroundings. That was quite the experience. Next summer, we're going to the World Championships in Germany. My dream is to sail in the SailGP league, which is sort of like Formula 1 for sailboats. And of course, I would love to go to the Olympics. But finding a good job for later is just as important. My studies are very interesting and technology has always fascinated me. I also plan to work with technology in the future.' •



## JELMER VIS (25) Mechanical Engineering student and top glider pilot

'As is often the case with top-level athletes, I was introduced to my favourite hobby by my father: gliding, in my case. What also helped is that I was born practically next to Hoogeveen airport. Gliding means flying without an engine. There are several different types of gliding, but what I do is fly a very streamlined plane with long wings, gliding from cloud to cloud so as to stay in the air for as long as possible.

I use a plane from the club, but also have a machine of my own. An old model that I fixed up myself. In competitions, the competitors are launched into the air by a tow-plane and then we disconnect and are free to glide. Experience is key in this sport. You're at your peak around the age of 40. The longer you glide, the better you get at reading the sky. The sport doesn't require much in the way of physical effort. Your heart rate is constantly elevated while in the air, so it's tiring, but not physically demanding.

### *'I enjoy my studies and sport too much'*

During competitions, you can make a difference while in the air by using thermals as effectively as possible. The goal is to fly in currents of rising air. That's because thermals make you gain altitude, so you basically glide from thermal to thermal. The ideal weather is sunshine with lots of cirrocumulus clouds. How do you know how to glide?

Mainly by feel and by looking outside. After all, everything in the cockpit is mechanical. I don't have thousands of buttons or complex navigational equipment on board. On the other hand, unlike professional pilots, I don't have an autopilot system on board. What makes the sport tricky? In running, you have a general idea of how fast you can go, but if I miss just a single thermal, I'm through. I'll have to land in a meadow or field somewhere. That's all part of it. Sometimes you read in the newspaper that a plane has crashed, or someone might urgently call an ambulance, even though it was a controlled landing.

As of next year, I will move up to the senior division. The problem is that I won't rank among the national top anymore. In the junior division, I competed in three world championships and several European championships. It will be quite a challenge to beat the competition in the senior division. And if I do make it to the World Championships next year: it will be held in Australia. Getting my plane there is almost financially impossible. A DUO loan is not going to cut it.

In the winter season, I mainly train on the simulator. That is easy to combine with my studies, but when I participate in competitions, I will often be gone for one or two weeks. That's why the top-level athlete status is so important to me. The flexibility and financial support it offers are very welcome. It's a constant puzzle to fit everything into my schedule, but it's doable. Especially because I enjoy my studies and sport too much to give either of them up.

Strangely enough, the consequences of the pandemic have been a blessing to me. Digital learning allows me to do a lot of work from Drenthe so I hardly have to be in Enschede. That leaves plenty of room in my schedule for training. My focus is now on graduation and setting new goals for myself in gliding. From the very start of my studies in Twente, my goal was to avoid borrowing and to finish my studies without delay. So far, it's going according to plan, thanks to the top-level sports scheme.' •







UT ALUMNUS TIM VAN DE RIJDT

# 'DANCES ALONG' AT MOSA MEAT

THE CAREER OF UT ALUMNUS TIM VAN DE RIJDT (40) IS ANYTHING BUT RUN-OF-THE-MILL. AFTER WORKING FOR NEWCOM AND GOOGLE, HE IS NOW CHIEF MARKETING OFFICER AT CULTURED MEAT COMPANY MOSA MEAT.

'WE'RE NOT COUNTING ON ANY MASS CONSUMER BEHAVIOUR CHANGE; THAT'S WHY WE CULTIVATE MEAT.'

**I**f you want to understand UT alumnus Tim van de Rijdt, just search for the 'Shirtless Dancing Guy' video on YouTube. The video shows a man dancing at a festival, a bit silly and all by himself. Until, after a few awkward seconds, a second festival-goer starts dancing along. He then calls his friends over to join them and before long, a whole crowd is partying to the music. But how is this translated into the business world? In this case, the 'Shirtless Dancing Guy' is an entrepreneur or inventor with a plan that – at first glance – seems insane, until someone else comes along who believes in the story and starts 'dancing along'.

Van de Rijdt does not think of himself as the first shirtless festival-goer, but rather as the second dancer. This is exactly the role he fulfils at Dutch company Mosa Meat. In 2013, professor Mark Post and food expert Peter Verstrate succeeded in creating the first cultured meat burger. Food critics who got to taste the burger live on television found it quite tasty, but a bit dry (because the meat does not contain much fat yet). When Van de Rijdt heard about the project, he was immediately enthusiastic. 'I offered to help. I did so for a year and a half, from the train and in the evenings, alongside my regular job.'

## CULTURED MEAT

Van de Rijdt has now been working at Mosa Meat for many years. The Limburg-based company uses one minuscule piece of meat from a live cow to make a hamburger via cell multiplication. This means it is real meat, but no animals have to be slaughtered to make it. In recent years, an entire industry has emerged in this 'cellular agriculture', producing meat, fish and leather. Currently, the main challenge is to

produce high-quality meat, on a large scale and at a reasonable price, explains the alumnus. Mind you, the cost of the first piece of cultured meat in 2013 was 250 thousand euros.

On top of that, Mosa Meat's product should have the smallest possible ecological footprint, because that is potentially the greatest advantage of 'cellular agriculture' compared to traditional animal husbandry. 'There are negative climate consequences associated with our current animal husbandry,' Van de Rijdt points out. 'We might start eating less meat in the Netherlands because of plant-based alternatives, but worldwide meat consumption is still growing. This is because meat consumption is directly correlated with wealth increase.'

## PETRI DISH

Compared to slaughtered beef, cultured beef requires 95 percent less agricultural land, generates 93 percent less air pollution and uses 78 percent less water, figures from research firm CE Delft show. An additional benefit: consumers can continue to eat meat. 'With our technology, we're not counting on any mass consumer behavioural change; not everyone will become vegan of their own free will. That's why Mosa Meat makes the same meat, but in a sustainable way.'

But how to turn this into a commercial success? Therein lies a major task for CMO (Chief Marketing Officer) Van de Rijdt. His job is threefold. 'First, I look at where we can offer our meat. At this stage, we're not allowed to sell our burgers just anywhere; even tasting them is a sensitive issue in the Netherlands. I also maintain contact





with potential buyers, such as supermarket chains or restaurant chefs, i.e. the 'sales side'. Finally, I try to draw attention to the product and define the image. Of course, we want to present our meat in such a way that it makes your mouth water. The image of a professor cultivating meat in a petri dish in some obscure laboratory somewhere is not accurate. The place where we produce the meat is more like a brewery.'

#### TWENTE

Van de Rijdt learnt his first skills in communication and marketing in Enschede. In 2000, he arrived at the Twente campus to study Applied Communication Science (TCW). 'I'm a true generalist at heart and was thrilled to have found a broad programme in TCW. Plus, the campus was great; a kind of Center Parcs where I could also study.' Van de Rijdt was, in his own words, an 'academic late bloomer'. 'It was only at the end of my studies that I realised that science allows you to add something to what we already know. That's when the penny dropped for me.'

Even more important was his meeting with Neil van der Veer, founder of Newcom. The research company was part of the TCW programme back then, and specialised in online research, rather than paper surveys. Many TCW students were able to find work at the thriving Newcom. 'After my studies, I spent a few years working as a project leader at Newcom, which by then had evolved into a commercial company. I had a great time working at a young company with all these enthusiastic and ambitious people.'

#### GOOGLE

Although Van de Rijdt was not looking for another job, a new opportunity presented itself in 2008. 'It actually started at the UT, which had one of the fastest networks in the world during my years

as a student. As a result, I developed an interest in everything digital. Purely out of interest, I searched for some information on Google's data centres around 2008. I found out that Google has a commercial office in Amsterdam. Because of my fascination with the company, I decided to apply there. All I could do was hope for the best, but after a seven-month application process, in the middle of the credit crisis, I got the job.'

Van de Rijdt took on various roles within Google, eventually focusing on consumer marketing. 'The people who make it are the core of the company. I found it interesting to form a bridge between the market's needs and the engineers. When it comes to product requirements, there are major differences between countries. A good example is the situation in the Netherlands, where people place great value on public transport and cycling. Other countries are more car-oriented. We were the first country in the world to be able to incorporate all current public transport information on departure and arrival times in Google Maps, to meet the specific needs of the Dutch market.'

The UT alumnus felt right at home working at Google, but as time passed, he felt the urge to pay more attention to 'what the world needs'. Van de Rijdt firmly believes in using technological solutions to tackle major social problems, such as climate change. With Mosa Meat, it is all about sustainable meat. 'But the movement is much broader than that. Consumer behaviour is not changing fast enough and governments are slow to act. This new movement, call it 'hacking capitalism', is aimed at solving problems independently of the authorities and consumer behaviour by means of technology. This development is desperately needed, which is why I started dancing along at Mosa Meat.' •

## COLUMN

Photo: Rikkert Harink  
Text: Hiska Bakker

# PLAYING IN TIMES OF CRISIS

Is life a game? Or is it deadly serious? Take, for example, student pranks that are sometimes dismissed as being frivolous or even inappropriate in our time of all sorts of crises. Think of students walking around with a big wooden mallet slung over their shoulder for days during the introduction. Or with a pink tutu over their trousers. The artwork *The Head* suddenly wearing a tie. Or practical jokes by colleagues.

My final project as a student focused on Pieter Jelles Troelstra's student days. He later became known as a lawyer for the poor and as a socialist politician. He was one of the founders of the precursor of the Dutch Labour Party PvdA. In 1918, a year after the Russian Revolution, he called for a socialist revolution in the Netherlands. But our country wasn't ready for that.

Troelstra studied law in Groningen from 1882 to 1888 and was a member of *Vindicat*, the student association. About a century and a half ago, joining that association was the most normal thing in the world; in fact, it would've been bizarre not to. You would've been branded a nihilist. Troelstra was known for speaking his mind, which is probably why he was put through hell during his hazing. It was so bad that his father and sister urged him to stop putting up with the brutal humiliation and leave the association. He didn't. A month later, the hazing had come to an end. Troelstra, as president of the new pledges, made a speech during the inauguration. He joined as many as ten associations, three of which were drinking clubs. He threw himself into partying. Drinking, debts to landlords, defying authority, drunkenly roaming the streets until dawn: he did it all with abandon. As a matter of fact, he also displayed this passion through his countless poems and ardent pleas for the Frisian language.



So his student days were carefree? No, in newspapers I found there was an entirely different side to him. He wrote critical articles on poverty, hunger, unemployment and the wide gap between the rich and the poor. He endorsed a strike by Enschede textile workers. Under the pseudonym of Piet van Heuvel, a carpenter in Leeuwarden, he published a fortnightly column in the *Friesche Courant* for three years. In those columns, he became increasingly political. Where at first, he would still write about his beautiful nieces or an exciting handball match, over time, he started advocating universal suffrage so that poor people would also get a say in the national administration. So I discovered that even as a student, Troelstra was deeply engaged in the debate about society's injustices.

Meanwhile, he seamlessly combined this seriousness with fun during his student days. In 1938 – during the tense period before World War II when crises were piling up, just as they are now – historian Johan Huizinga published the book *Homo Ludens: man the player*. In it, he argues that play is a prerequisite for our culture. Our civilisation will break down if people deprive themselves of the freedom to put things into other perspectives, to colour outside the lines, to explore different paths. And perhaps that ability to play is all the more crucial in these dark times. The greatest wisdom of all is knowing when you can or should alternate the serious with the playful. Some situations call for utter seriousness. Think of war, poverty, climate and a hundred thousand other forms of misery. But sometimes, you're allowed to play. •

#### Hiska Bakker

Historian, journalist and presenter at Studium Generale



# ' I ENJOY ACTIVISM VERY MUCH. MAYBE TOO MUCH'

**Students or researchers? PhD candidates fall into a category of their own. What is it like to navigate the sometimes lonely road towards a doctoral degree? In this series, we put young academics of the University of Twente in the spotlight. This episode gives the stage to Roberto Cruz Martinez, an Information Specialist, a University Council member and PhD candidate at the UT.**

## WHY I'M HERE

'I came to the Netherlands in 2016 to study a Master's programme in Psychology. I was looking for a quiet and calm place to fit my lifestyle and focus on my studies. I chose the UT solely because of the programme. I'd never been to the Netherlands before and I had no idea what Enschede was like, but from the start I came here with the plan to stay long-term.

The choice to study psychology was always clear to me. I never doubted it. It was the only option. I've always been very interested in humans, in what drives us, how we think. I've become really passionate about the topic, but I didn't want to become a therapist. I had an early interest in social psychology – in what impacts us as a community. I guess that also explains my former activities as a board member of P-NUT (PhD Network of the University of Twente) and now as a member of the University Council. I like reaching out to people.

I've always been very proactive and vocal. Since September 2022, I'm a member of the University Council. I enjoy activism very much. Maybe too much. I know that individuals can make a big difference – for themselves, but also for others. That is my passion and it's a principle at this point. I want my life's work to be more than just

whatever job I have at the moment. I want to participate and actively work toward changing things. Hopefully that also motivates others to become involved. As I'm getting older and getting more experience, I feel that I should try and help wherever I can. After all, it will be up to my generation to be in charge soon.'

## WHAT I DO

'My PhD research is about self-regulation, also known as self-management or self-care when it comes to health regulation. This generally refers to what a person can consciously do to plan their life based on their goals, what cognitive functions or specific behaviours are involved and so on. I focus on how individuals with chronic conditions can take better care of themselves. This covers, for example, patients with heart failure or those recovering from a stroke. And because we are the UT, I research possible interventions with digital technologies. I'm looking into how we can design and use technologies to motivate people and facilitate changes in their lifestyle.

My doctoral research was possible thanks to a scholarship from the Mexican National Council for Science and Technology, but this scholarship ran out in 2021. I needed an extension to continue my research, and so I also started searching for jobs. Luckily enough, I could apply for my current position as an Information Specialist, which is now my fulltime job at the UT. I'm still busy writing my PhD dissertation and I'm still very passionate about it, but I haven't been able to give it much attention lately. I need to engage more. It's become a behavioural problem – and I'm an expert on that, so I know how that goes. The pattern needs to be broken. Everyone has been very supportive and understanding of my situation. It's all up to me now.'

## MY PHD JOURNEY

'I'm very happy that I embarked on the PhD journey, though. It has exceeded my expectations. It might sound like a cliché, but the best part has been the community. I never could have imagined all the different people I'd meet. There are some bad parts, of course. Although I'm usually very positive, there were a few moments when I had to be critical. Being a PhD on a scholarship has its disadvantages. On top of doing research, I had to be busy with a lot of extra things. Around the middle of my PhD I even had to prove to the Dutch government that I had sufficient financial means to stay here, because the scholarship wasn't enough. Recently, I had serious troubles with housing. Often I felt like I was in a gap, like I didn't have enough rights. At one point, I was even considering to leave. When a lot of small things accumulate, it just gets to you. But that's all in the past now.

I see myself staying at the UT. I'm really happy with my job and I see many areas where I can contribute, such as Open Access. I'm passionate about science and how it can improve – and I want to be able to influence that.' •

## ROBERTO CRUZ MARTINEZ

### PhD research topic

eHealth technologies aiming to support the self-management behaviours of patients with chronic diseases

### Work

Information Specialist & Open-Access Specialist at LISA (Library, ICT-Services & Archive) & PhD candidate at Department of Psychology, Health & Technology (BMS Faculty)

### Education

Master degree in Sports Psychology (Universidad Autónoma de Nuevo León, Mexico) & MSc Psychology (University of Twente)

**Originally from**  
Mexico



# UT'ERS ON THE MOVE



**2021**

**LUKAS VAN REMMERDEN**  
**COM**

In September, Lukas van Remmerden started working as a Marketing Specialist at OpenUp. OpenUp is an Amsterdam-based company that specialises in everything related to mental well-being. Recently, OpenUp was named one of the top 10 start-ups in the Netherlands. In addition to his job at OpenUp, Van Remmerden is also working on his own health tech start-up. Van Remmerden studied Communication Science at the UT. •

**2022**

**DEVESH GULHANE**  
**ITECH**

Last August, Divesh Gulhane started as a User Researcher at Philips. He is working in the male grooming products department. Gulhane completed his master's degree in Interaction Technology at UT this year. He also completed an honours programme in Design Track. •



**2022**

**HIDDE ZIJLSTRA**  
**BA**

As of September 2022, Hidde Zijlstra is employed as New Business Developer at Nedap. This summer, Zijlstra completed his master's programme in Business Administration at the UT, specialising in Digital Business & Analytics. Within Nedap, Zijlstra has started working in the Harmony proposition, which is developing a platform for RFID (radio-frequency identification) in logistics. There, the alumnus works to facilitate the implementation of RFID in logistics. •



**2015**

**MARIA ZAPPEIJ**  
**PSY**

In October, Maria Zappeij started her new job at Koninklijke Gazelle N.V. – in the role of HR Business Partner. Zappeij obtained her bachelor's degree in Psychology from the UT in 2015. After completing her master's programme in Nijmegen, she worked as an intermediary at Randstad Groep Nederland and as an HR consultant at Rabelink Logistics. •



**2001**

**NADIR JAMES**  
**COM**

In September 2022, Nadir James became Head of Policy & Advice at De Haagse Scholen. This marks the end of a period of more than 15 years at CAOP (Centre for Public Sector Labour Relations), where she served as team manager and strategic advisor. James completed her first year of the Applied Educational Science degree and her master's degree in Applied Communication Science at the UT. •



**2001**

**MARILYN KLUYSKENS**  
**IE&M**

Marilyn Kluyskens has been working as Senior Change Manager at Australian Retirement Trust since August. In 2001, Kluyskens graduated in Industrial Engineering & Management from the UT. Following her graduation, she spent some time working for the municipality of Enschede. In 2006, Kluyskens moved to Canada, where she continued her career as, inter alia, Change Manager at IBM. In 2012, the alumna moved to Australia, where she worked for numerous companies in the role of Organisational Change Manager. •



**2018**

**JEROEN MONTEBAN**  
**BIT**

Jeroen Monteban has been working at Accenture DACH in Zurich, Switzerland since September 2022. He holds the position of Senior Consultant Cloud Infrastructure, helping clients design and build their cloud infrastructure. Prior to this, Monteban worked at Deloitte in Amsterdam as a Technology Strategy & Transformation consultant. Monteban graduated in 2018 with a master's degree in Business Information Technology. •



**1999**

**ANGELA GALEANO**  
**GFM**

In August, Angela Galeano joined ONErpm as Country Manager of the Andean and Caribbean countries. ONErpm is one of the largest music distributors in the world. Galeano has been involved in the music industry for quite some time, having previously worked at Sound Royalties and Dinastia INC, among other companies. In 1999, Galeano graduated in Geoinformatic Courses from ITC. •

# THIS WAS ALUMNI TALKS 2022

CURIOS FOR MORE?

THE NEXT EDITION WILL APPEAR

ON 6 OCTOBER 2023!



## ALUMNI ASSOCIATION IN THE SPOTLIGHT: BEKADER

Did you know that many programmes have their own alumni association? In these associations, activities are organised for and by alumni. One of these associations is Bekader.

Bekader is the alumni association of Industrial Engineering & Management and Business Administration. Founded in 1983, the aim of the association is to develop and maintain the community of UT Business Administration alumni. This is done, among other things, by organising networking events around the themes of management and entrepreneurship, social events and the annual Bekader Thesis Awards. During the latter event, awards are presented to the best BA and IEM theses. In the 2022 edition, which was very well-attended and convivial, Leander Borggreve (BA) and Thymen van der Poll (IEM) took home first prize.

For more information about Bekader, visit their website [www.bekader.nl/home](http://www.bekader.nl/home)

Would you like to know if your programme has an Alumni Association? Check [www.utwente.nl/en/alumni/your-alumni-benefits/alumni-associations/](http://www.utwente.nl/en/alumni/your-alumni-benefits/alumni-associations/)



# TEAM UP FOR TALENT!

SUPPORT OUR ANNUAL CAMPAIGN 2023!  
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## NANOTECHNIQUE TO FIGHT CANCER

Professor Jai Prakash, engineered therapeutics



## TECHNICAL INNOVATIONS BY TWENTE STUDENTS

Kirsten Bouwman, Student Industrial Design, team manager Solar Team Twente



## YOUNG TALENT FOR A BETTER FUTURE

Omar Bahig, Technical Medicine student from Yemen



## THE SUSTAINABILITY FUND FOR STUDENTS

Joris Harbers, student Technical Medicine, board member Student Union

## POWERED BY UNIVERSITY FUND TWENTE

'From the 'Batavierenrace to Theatresports, from intimate readings and huge parties to conferences and symposiums.' Two examples of events in the past few months that have been supported by the fund. •



In September, Ilse Akkermans, Cyrelle Tenhagen, Ans Vlooswijk and Maudi Sonder won gold in the coxless pair at the European University Rowing Championships on the Yeditepe University campus in Istanbul. •



To add luster to its seventh lustrum, AEGEE-Enschede organized a free laser tag activity in the Sickhouse at Stationsplein for all students in Enschede. After the laser tag game, the evening continued in AEGEE's home pub, Asterion. •

## INCLUDE THE UNIVERSITY IN YOUR WILL

Even when you are no longer around, you could benefit future generations at the University of Twente. By leaving a gift to the University Fund in your will, you will enable new generations of students to flourish and our research to provide a valuable contribution to society. Considering leaving money to the University Fund in your will? We would be happy to discuss the possibilities with you. •

For more information: [www.utwente.nl/en/universityfoundation/donate-folder/leaveagiftinyourwill/](http://www.utwente.nl/en/universityfoundation/donate-folder/leaveagiftinyourwill/)

## DONATING WITH TAX BENEFITS

Do you donate to the University Fund annually or are you thinking of doing so? You can easily enjoy a tax benefit by making your donation a periodical gift. Doing so will allow you to raise your contribution without spending any extra money. •

For more information: [www.utwente.nl/en/universityfoundation/donate-folder/periodic-donations/](http://www.utwente.nl/en/universityfoundation/donate-folder/periodic-donations/)



## NICOLE VERMEULEN WINS MARINA VAN DAMME SCHOLARSHIP

The Marina van Damme Scholarship 2022 goes to alumna Nicole Vermeulen, graduate of International Business Administration (2005). Mariëlle Feenstra, alumna of Public Administration (2002), has received the runner-up scholarship. The jury selected them from 22 candidates on the basis of their ambition, passion and the possibility to take a next step in their career.

Nicole Vermeulen has had a successful career at large companies such as Essent and P&G as well as at smaller companies and scale-ups. She now works as a Supply Chain

Manager at Shell. She has been working there for 10 years on the energy transition and has played an essential role in the Holland Hydrogen project, the construction of a green hydrogen factory in the Maasvlakte. She is also active as a guest lecturer in education and as a mentor in a number of women's networks. In January 2023, she will start as a board member in a solar energy scale-up in Switzerland. Her motivation is to positively influence both diversity and the energy transition in the energy industry and at as many companies as possible. To realize this ambition, she wants to take part in the only accredited training for non-executive board members, in London. She will use the scholarship to co-finance this training.

Mariëlle Feenstra currently works as a postdoc researcher at TU Delft. Her ambition is to have a chair in Gender & Energy Design. Through her foundation 75inQ she aims to bring her knowledge to boardrooms at an accelerated pace. In order to make more impact in those boardrooms, she wants to follow courses at the Erasmus Center for Women and Organizations (ECWO) with the runner-up grant. This also gives her access to the ECWO alumni network.

The Marina van Damme grant was awarded for the 20th time this year by the University Fund Twente and was made possible thanks to a donation from M.A. van Damme-Van Weele. In 1965 she was a PhD student at the Technical University of Twente. •

## ARTIFICIAL FLOWER BY EVA SCHOCKEMÖHLE WINS FIRST NIERFUND EHEALTH VOUCHER

Physical activity is necessary for the prevention of many diseases of affluence. That's why student Vera Schockemöhle developed the Artificial Flower as part of her graduation for the Bachelor's in Creative Technology. The flower opens up if the user becomes active.

The jury considered this to be a creative and innovative concept with a high likability factor, but more validation is needed. That is why Vera wins the first eHealth Voucher, which consists of 5,000 euros plus the support of the Designlab, Novel-T and the UT chair Biomedical Signals and Systems in the further development. The Niers Fund eHealth Voucher is awarded annually to a bachelor's or master's student, PhD or young alumnus (within three years of graduation) who has an innovative idea for an eHealth solution.



The voucher is made possible by the Niersfonds, a Named Fund at the Twente University Fund. The Niersfonds was established in 1988 as a gift from the Overijssel business community at the farewell of the Queen's Commissioner Mr. J.L.M. Niers. •



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**Contact:**  
Maurice Essers, director:  
053 489 3993 or  
[m.l.g.essers@utwente.nl](mailto:m.l.g.essers@utwente.nl)



# 'STUDENTS SHOULD BECOME AWARE OF WHAT THEY HAVE TO OFFER'

WHAT DOES 'SHAPING 2030' MEAN FOR THE STAFF OF THE UNIVERSITY OF TWENTE?

IN A SERIES OF DOUBLE INTERVIEWS, TWO PROFESSIONALS SIT DOWN TO TALK TO EACH OTHER ABOUT THAT. WHERE DO THEIR ACTIVITIES OVERLAP? HOW DO THEY DIFFER? WHAT CAN ONE LEARN FROM THE OTHER AND VICE VERSA?

IN THIS EDITION: PROJECT MANAGER DEMITRIANA MINASSIAN AND CAREER COUNSELLOR WILLEKE STUKKER – JANSEN.

**Willeke:** 'So tell me, who are you? What do you do?'

**Demitriana:** 'I currently work as a project manager for Strategic Business Development. I've been at UT for five years now, first as a student with a pre-master in Industrial Design and a master's in Industrial design Engineering. As a student, I also worked in parallel at the DesignLab and Fraunhofer Innovation Platform. After my graduation I got my first full-time job as a Research Engineer at Fraunhofer Innovation Platform where I worked for two years. Right now, I am the project manager of MISSION, which is a Marie Skłodowska Curie project, funded by the European Union's Horizon 2020 research and innovation programme. The Faculty of Electrical Engineering Mathematics & Computers (EEMCS, red.) is participating and coordinating in the project, whereas there are another nine international partners.'

I also support a colleague with DIH-HERO, a project that tries to accelerate innovation in robotics for healthcare, which is also funded by the EU and is led by EEMCS. It has been in motion for three years already and has funded more than sixty projects through different calls. Those are my main work activities, but I am also involved in the service council of SBD and some other internal initiatives.'

**Willeke:** 'That sounds interesting, and where are you from?'

**Demitriana:** 'I'm originally from Cyprus but also half Armenian. And I did my bachelor's in the UK. Currently, I live with my partner and our dog, a black mini schnauzer. It is a pandemic puppy.'

**Willeke:** 'A pandemic puppy?'



**WILLEKE STUKKER-JANSEN**

Career Counsellor at Centre for Educational Support

**DEMITRIANA MINASSIAN**

Project Manager at Strategic Business Development



**Demitriana:** 'Yeah, when we all had to work from home at the beginning of the pandemic, we saw a good opportunity to raise a puppy as it should be raised. This way it didn't have to stay home alone. We could help her to get used slowly to longer periods alone. And what about you, who are you?'

**Willeke:** 'I work as a career counsellor at Career Services, which is part of Student Affairs Coaching and Counselling (SACC) and the department of CES. As Career Services, we help students in the process of completing their studies and starting up their professional career. If they wish to find a job, we offer guidance in finding out what the options are and where to find opportunities, based on their preferences, future dreams and interests. But we also help bachelor students in choosing a master track that really matches their personal profile and ambitions. Furthermore we offer study choice tests and workshops on career related topics and skills.'

**Demitriana:** 'That must be very helpful for many students.'

**Willeke:** 'It is! Career Counselling has been running for four to five years. It was initially started by my colleagues Hemo Oumenad and Jacqueline Eenkhoorn, but they rapidly found out there were many students in need of support. They had to expand. And now, we are a team of four.'

**Demitriana:** 'What would you say is the biggest challenge that students are facing?'

**Willeke:** 'It depends a bit on the background. In general, the biggest challenge students may face is getting a picture of the kind of jobs there are in their study direction and whether those are what they are aiming for. They've done this long study track to get their master's degree and then it's often not clear what to do with it. It may take a while, an open mind and a lot of creative thinking to find the right fit. I am happy to be able to support in this search.'

We also try to help companies. A lot of companies are seeking knowledge workers or engineers. We contribute to all kinds of projects aiming to make the connection between our students and companies easier. Since the student population is getting more diverse every year, companies may have to change as well to become more inclusive and overcome a language barrier or visa requirements.'

**Willeke:** 'I was also involved in the Shaping Expert Group on inclusion. I really liked the research we did. How inclusive is UT? I believe we still have some way to go on certain topics. As an international student, did you feel welcome at the start here?'



**Demitriana:** 'I started in the first year that the bachelor programmes made the switch to English. In my premaster I did a few bachelor courses, this transition made it a bit chaotic. There are also simple things like different councils in the university only being facilitated in Dutch. That automatically excludes international people from participating, contributing and being involved. Or even some events and articles only being published in Dutch. Of course, you can learn Dutch, but that is a process and takes time. Sometimes, people forget that learning another language takes a lot of effort. But I do see a lot of steps the university has taken. There can always be more, but I do appreciate the progress I see.'

**Willeke:** 'You also studied in the UK, was it completely different?'

**Demitriana:** 'Yes, it was completely different! One of the culture shocks I had when I came to the Netherlands from the UK, is that everything at the university in the UK was so structured. There was a guide for everything. You knew exactly what to expect. You knew how to find an internship, how the interview was supposed to go, how to dress and how you are expected to behave. Here everything is more unclear, but also in a way that it is more flexible as well. Some things are more intuitive, but that also creates a lot of uncertainty. Job interviews here made me ask myself questions like 'How formal is formal?' and 'Is a suit too much?'. I'm not always certain what people expect from me. The master's programme was way more flexible than my bachelor's in the UK. I had more choices; there were so many possible combinations of courses. However, that also created a lot of

uncertainty and stress on ensuring you are making the right choice and right combination. I was used to 'checklists' for everything. What would you say that freshly graduated students are missing before they enter the job market?'

**Willeke:** 'Self-confidence. Not knowing whether you are capable enough to start as a professional in the field is often experienced as stressful. This can cause a lot of doubt. Students should become aware of what they have to offer.'

**Demitriana:** 'I recognize that! I find it a big challenge to present skills I know I have but that are not certified. During my studies, I got to explore many different topics that are not 100% related to my study. But then I felt very self-consciousness to say 'Hey I know about this!' when I didn't have a class to show for it.'

**Willeke:** 'Proving you have certain skills can be difficult. To overcome that, we have a STAR exercise in our module. Think of an achievement you are proud of and describe the situation, task, actions and role you had. It's a difficult exercise. The right example doesn't always pop up in your mind especially if you haven't got a lot of experience. But it might be something very small. You don't have to have been president of a board, it can be something like stepping out to do a side job.'

**Demitriana:** 'It was very nice to learn about your work. Do you have any other interests besides work?'

**Willeke:** 'Yes, I am into crafting like knitting and painting. And this week I'm starting a course on ceramics. I'm a bit curious about how that will go. But I love making things with my hands.'

**Demitriana:** 'I experimented with making candles. And a few weeks ago I tried self-drying clay. It was a kit I found. It is very meditative.'

**Willeke:** 'Yes definitely! I also enjoy decorating my own home. We just built a new garden building for me to work in. And I enjoy decorating it a lot! Thinking about how I want it to look. In the past, I used to sing as well. But during the pandemic, that stopped and I haven't picked it up again. Do you have any other hobbies?'

**Demitriana:** 'I dance in a competitive team. We're dancing in different competitions throughout the year all over the Netherlands and we train a lot. I went back to it last year after I stopped for a while. But last year I asked myself why I actually stopped. So I looked for a dance school and joined a team. It felt strange, but it was a very good move for me.'

**Willeke:** 'Sounds like a great hobby, you can express yourself and it is a nice combination of exercise and music.'

**Demitriana:** 'Yes and I really like music too!' •

## MORE STORIES

You can find more double interviews with various members of the UT community in the previous editions of Campus and online.

You can read more stories here: [www.utwente.nl/our-story](http://www.utwente.nl/our-story)





OUR OFFER



# TACKLING GLOBAL PROBLEMS AT LOCAL, NATIONAL AND INTERNATIONAL LEVEL

The challenges society faces today are complex and far-reaching. More than ever, they call for the collaboration of many different, complementary stakeholders. At ECIU University, of which University of Twente is a partner, our vision is to help solve these complex challenges and make society futureproof by collaborating at local, national and international levels.

In order to realise this, ECIU University and University of Twente adopt a new approach to research, learning and innovation. We bring together students and scientists with government, businesses and citizens to identify urgent, definable problems across all societal domains, from transport and mobility to the energy transition or a smart circular economy. We then form international, multidisciplinary teams

and help to solve complex societal problems through a challenge-based approach. Do you work for a public or private organisation and would you like to make an active contribution to this new learning programme? Then we are looking for you! Marike Boertien (Novel-T, University of Twente): 'We see challenges as an opportunity to build long-term relations within our ecosystem. Students, researchers and stakeholders working together to solve a challenge is a powerful mix of creativity and innovation and we hope you want to join us.'

**We would definitely like to get in touch with you as a challenge provider**



## WHO WE ARE

The European Consortium of Innovative Universities (ECIU)

- 12 universities, one open community
- 12 inspiring campuses in multiple European cities
- 12 connected regional ecosystems of universities, businesses and civic society
- 12 partners offering countless combinations of education, research & innovation opportunities
- 12 challengers of conventional thinking
- One transformational approach to on- and offline education, research and innovation

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OUR OFFER

# SHAPE NEW OPPORTUNITIES BOTH FOR YOURSELF AND FOR OUR SOCIETY

BE A PART OF A LEADING TECH UNIVERSITY THAT IS CHANGING OUR WORLD FOR THE BETTER

Your job will make a difference by helping the wider UT community towards meaningful breakthroughs, for example at our cutting-edge research institutes, the MESA+ Institute for Nanotechnology, the TechMed Centre and the Digital Society Institute.

WORK AT THE INTERFACE BETWEEN TECHNOLOGY AND SOCIETY



FIND YOUR JOB [UTWENTECAREERS.NL](https://utwente.nl/careers)

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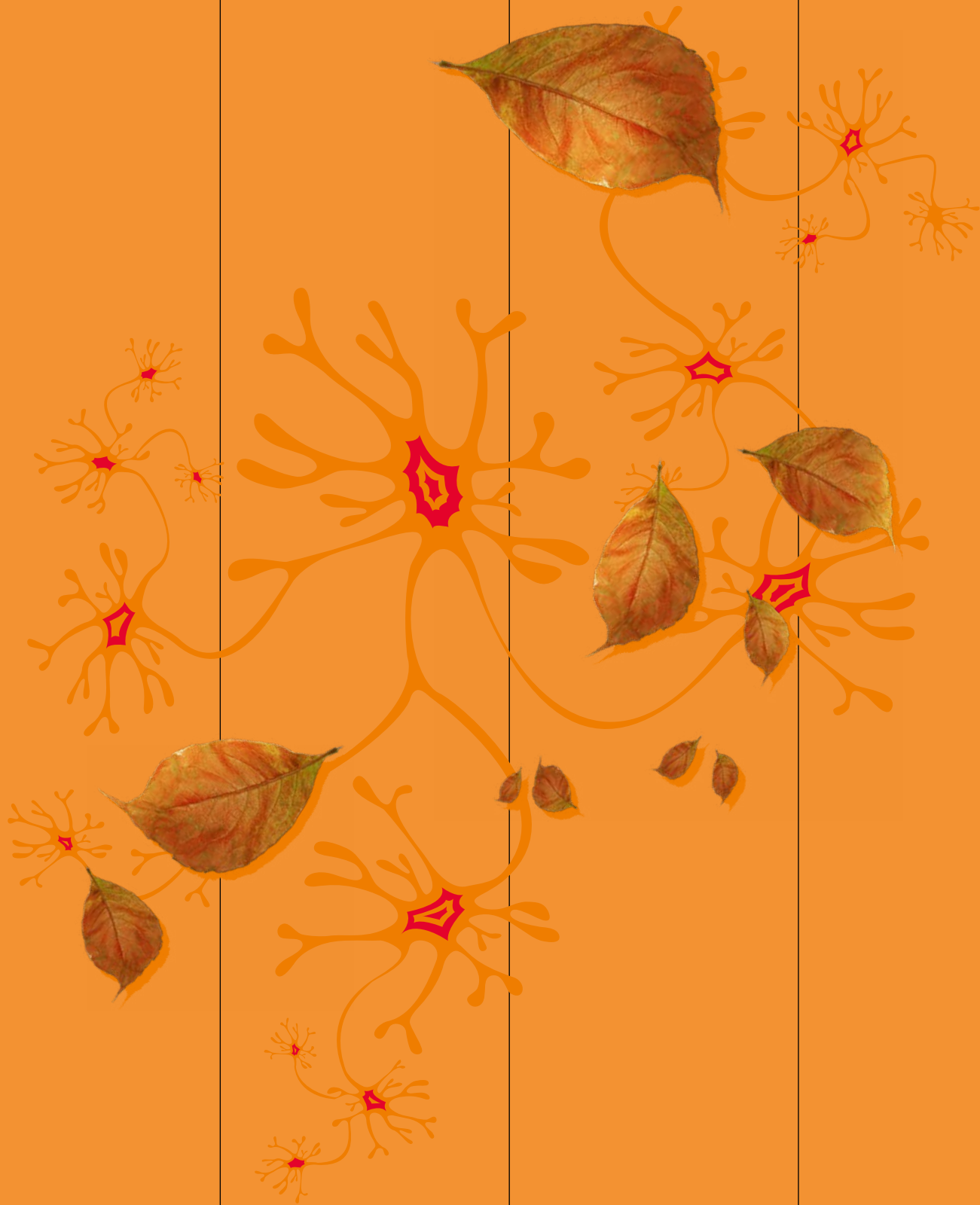
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