

Bright minds, better future

HIGHLIGHTS

AUTUMN & WINTER

18/19

“The whale puts
plastic waste in
the spotlight.”

Marleen van Rijswick
Professor of European
and Dutch Water Law



Utrecht University

ABOUT HIGHLIGHTS

Highlights is published twice a year to give Utrecht University's Dutch and international contacts an impression of what has been achieved over the past six months.

Utrecht University is a leading international research university with innovative academic teaching programmes. Our education and research are characterised by our ground-breaking interdisciplinary approach.

This publication provides information about the university's four strategic research themes: Dynamics of Youth, Life Sciences, Pathways to Sustainability and Institutions for Open Societies. Building on these themes, the university has created fourteen focal points of research ('hubs') where science meets society to address pressing social issues.

Thanks to this interdisciplinary approach and our culture of collaboration, Utrecht University is able to achieve innovation, new insights and social impact.



When you graduate from Utrecht University, you leave with a degree that you can present with pride to an employer. We train independent thinkers who are not only well-versed in the latest developments in their fields, but also accustomed to looking beyond disciplinary boundaries. Enthusiastic professionals who have something real to offer society.

That is not to say, of course, that these graduates have nothing left to learn when they complete their studies. Our rapidly-changing society calls for lifelong learning and, as a university, we have a key role to play in this. After all, we ourselves are constantly working on educational innovation, and our world-class research is constantly revealing new insights.

And that is why we are expanding our postgraduate education with the new LifeLong Learning programme. We want to create an identifiable, inspiring programme that is well-matched to the requirements of professionals. This is why we are collaborating with business, government and alumni, and focusing on lecturers who want to provide continuing education. At the end of last year, Professor Wieger Bakker was appointed Dean of LifeLong Learning. He has the task of further developing our range of training for professionals over the coming two and a half years, so that we can enable people who are no longer studying or working with us to develop their talents and contribute to a better world. Read more about the programme in this edition of Highlights.

The Executive Board

Anton Pijpers, Annetje Ottow and Henk Kummeling



ON THE COVER

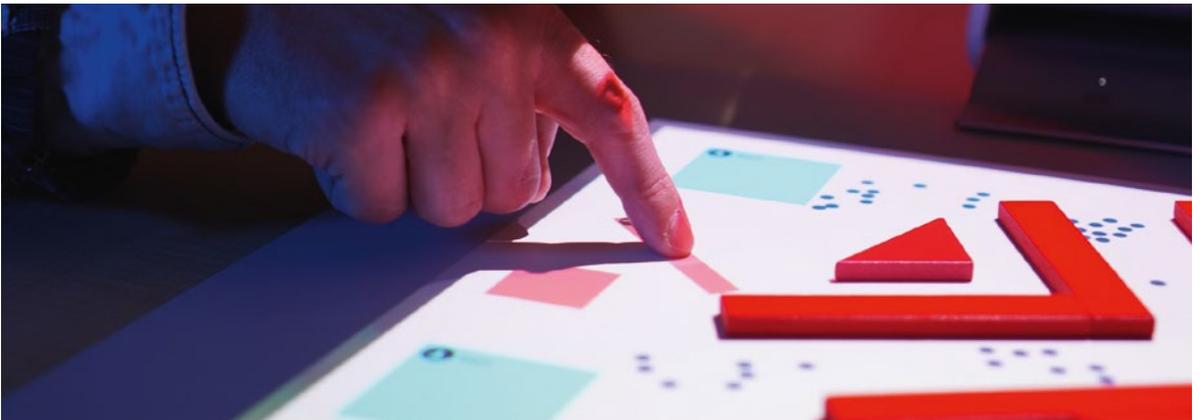
Since January, a gigantic plastic whale has been on display leaping out of the water of Utrecht's Catharijnesingel. 'Skyscraper' was designed for the Bruges Triennial by the STUDIOKKA ARCHITECTS firm and brought to Utrecht by Marleen van Rijswijk, Professor of European and Dutch Water Law. By using the whale to grab people's attention, Utrecht University wants to share knowledge about rivers, oceans, water and everything related to them. "The whale spotlights a problem that we don't usually see: the plastic waste that we're all allowing to end up in the environment," explains Van Rijswijk.



Science Park joins efforts to achieve healthy urban living.

Utrecht Science Park should become a low-traffic area, with an attractive centre providing space for catering outlets and shops. The number of housing units on this campus for both students and first-time buyers should double from 2,500 to 5,000 in the near future. This is the objective set down in a document produced jointly by the university,

university of applied sciences, medical centre and several companies. As the landowner, the university was the initiator of this future vision for Science Park. The partners have been working on the idea for the past two years, together with numerous student organisations, companies, institutions and lobby groups.



VIRTUAL BALLS THAT PREDICT CROWD FLOWS

A year ago, computer science researcher Dr Roland Geraerts and his associate Eric de Wilde launched the start-up uCrowds. The business, which sought affiliation with Utrecht Holding and incubator UtrechtInc, produces unique software that simulates the movement of large crowds under different conditions. Previous users of the software include Schiphol and the Grand Départ of the Tour de France in Utrecht. Game developers are also expected to show an interest. The company uCrowds is a spin-off of ten years of research. As Geraerts says, "Our strength is and will continue to be the link with scientific research. Not only is our software state-of-the-art, but it will always keep developing."



“We researched the sense of solidarity among people in Utrecht.”



Madelijn Strick
Social psychologist

Assisted by Professor of Public Management and Behaviour, Lars Tummens, a group from the Utrecht Young Academy (UYA) undertook research among 902 people from Utrecht in order to boost their sense of solidarity and reduce prejudice. The result was a video entitled “Utrecht zijn we samen [Together we’re Utrecht]”, which the UYA

produced in collaboration with the city council. The research shows that groups that watched the short film showed more solidarity than groups that had not watched the video. “Watching the film also led to a considerable reduction in prejudice”, said Madelijn Strick, the social psychologist who ran the experiment.

uu.nl/filminterventie

WE WANT TO BE LEADERS IN THE FIELD OF OPEN SCIENCE

The university has launched a programme to facilitate and promote open science among academics. According to the Executive Board, this is “based on the conviction that scientific research will be better able to play its role in contributing to solutions to complex problems if knowledge is shared as much and as quickly as possible.”



uu.nl/openscienceprogramme



'Mr Wet and Mr Dry' win UU Publiprize

▲ Erik van Sebille (l) and Niko Wanders (r).

Erik van Sebille, an expert in the plastic soup and ocean currents, and Niko Wanders, an expert on drought, have jointly won the UU Publiprize award. The prize is awarded by the university and is designed to encourage Utrecht academics to take part in social debate via the media. Wanders and Van Sebille are affiliated with Pathways to Sustainability, and their research is aimed at achieving a more

sustainable world. “Whereas Wanders always storms the media world when prompted to do so by current events, Van Sebille is always ready to go out and ensure that the plastic soup makes the headlines, even when there doesn’t seem to be an immediate reason for this,” said the jury. The pair were dubbed ‘Mr Wet and Mr Dry’ in the course of the jury’s deliberations.

uu.nl/publiprize



RECOGNITION FOR INCLUSIVE THINKING IN THE MEDICAL SECTOR

On 20 September 2018, Avin Ghedri received the ECHO Award in the university education category. Avin won the award for her activities in the Medicine degree programme and UMC Utrecht, which bridge the gap between groups from Western and non-Western backgrounds. Her work ranges from successful blogs and teaching at secondary schools to organising in-house meetings. The jury praised her approach: “Avin involves both patients and medical staff in promoting inclusive thinking in the medical sector.”

◀ Award winner Avin Ghedri (in the middle) posing with Annetje Ottow and Minister of Education, Culture and Science Ingrid van Engelshoven.

MORE ATTENTION NEEDED FOR STUDENTS WITH DISABILITIES

On 8 January 2019, Richard Horenberg, chair of the Platform Onbepoort Studeren (Unimpaired Studying Platform), received the first Diversity & Inclusion Award. Members of the platform come up with ideas on accessibility issues at the university and give advice to students with disabilities. The platform also runs a buddy programme that links students with disabilities to fellow students. Richard, who is studying Medicine, is one of the founders of the platform. "This award is a milestone in everything that we've achieved to date and all that's to come. This year, we also want to focus on students who are in the final phase of their studies, which includes traineeships, work placements and workshops."



uu.nl/diversity



CHILDREN FROM DISADVANTAGED AREAS INTRODUCED TO THE UNIVERSITY

On 17 December, Utrecht University and IMC Weekendschool Utrecht signed a cooperation agreement to strengthen their collaboration and give inquisitive young people an opportunity to get to know the university early on. IMC Weekendschool Utrecht brings children aged 10–14 from disadvantaged neighbourhoods into contact with professionals from various fields. Utrecht University holds classes, for example on veterinary medicine, and makes the Utrecht University Hall available for a festive graduation ceremony. Joyce Parlevliet, lecturer at the Department of Farm Animal Health: "The faculty of Veterinary Medicine has been working with IMC Weekendschool Utrecht for more than 12 years; we teach classes in the second year. Arend Schot and I have also worked with the 'Weekendschool On Tour' for refugee children."

uu.nl/imcweekendschool

UNIVERSITY TEACHING AWARDS

“The winning teachers are involved with their students”

The University's Executive Board annually awards two teachers for excellent teaching: the Outstanding Teacher Award and the Teacher Talent Award. This year Niels Bovenschen, teacher at the faculty of Medicine, won the Outstanding Teaching Award. Marij Swinkels, teacher at the Faculty of Law, Economics and Governance received the Teacher Talent Award. The jury selected both winners for their involvement with their students and the way they challenge them to reach beyond what they thought was possible. The lecturers were nominated by their own students via the student associations.

Students describe Niels as a passionate teacher and researcher. “The confidence and the responsibility he gives, makes you feel worthy.” In the case of Marij, the jury was impressed by “the innovative ways she encourages students to think critically.” The winners were announced during the annual Education Fair on March 7th. They receive their award during the Dies Natalis of Utrecht University.



“Our social responsibility doesn't end when 25-year-olds graduate.”



Wieger Bakker
Dean of LifeLong Learning

“Lifelong learning is becoming a normal part of our education: it's no longer a question of whether we're going to do it, but how we tackle it,” says Professor Wieger Bakker, who was appointed Dean of LifeLong Learning at the end of last year. Utrecht University shares the government's ambition to help adults acquire the knowledge and skills they need to remain sustainably employable on the labour market. “It's a continuous learning process: people enter the labour market at a basic level and do a number of jobs. They want to stay inspired and so to keep learning, which means we'll encounter them at various stages in their careers.”



“Dutch youth is happy, but pressure at school is increasing.”

**Gonneke Stevens**Associate Professor of
Interdisciplinary Social Science

Young people in the Netherlands are still happy and contented with their social relationships, but there are also some worrying developments. They are experiencing ever-increasing pressure from schoolwork, they are using condoms less often, while 15 and 16-year-olds still drink a lot of alcohol.

On Wednesday 5 September 2018, Gonneke Stevens, project leader of the HBSC (Health Behaviour in School-aged Children) research study, presented the report on the well-being and health of Dutch youth (aged 11 – 16) to Paul Blokhuis, Secretary of State for Health, Welfare and Sport.

uu.nl/schooldruk

"WE WILL HAVE TO DIG DEEPER TO UNCOVER YOUNG PEOPLE'S HIDDEN CONCERNS"

**Marloes Kleinjan**
Youth Mental
Health Promotion

We still know too little about the mental health of young people in the Netherlands. Several studies have shown that Dutch youth are among the happiest in the world, but we cannot yet answer basic questions such as "How many young people suffer from depression?". There is a vulnerable group affected by mental health disorders that currently remains hidden. "I believe that we have to do something about this situation. If our research can help to identify this group, we can improve treatment and improve their mental health."



“Play among humans has not been studied extensively and not at all among chronically-ill children.”



Heidi Lesscher
Neurobiologist



Sanne Nijhof
Paediatrician, UMC Utrecht

Chronic diseases such as cystic fibrosis, arthritis and cancer negatively influence children’s development. The survival rates of children with a chronic disease are increasing, but how can we enable them to grow up into happy and resilient adults? Researchers from various disciplines will

study play in order to improve the developmental and psychosocial outcomes for these children. Based on our knowledge about the importance of play from research in rats, play may be key to reducing the negative impact of disease in young patients.





“We want a better understanding of the interaction between young children and their parents.”



Carolin Junge
Assistant Professor
of Developmental
Psychology



Carlijn van den Boomen
Assistant Professor
of Developmental
Psychology

How do young children shape the interaction with their parents, and how can this be measured in practice? In past research, Junge and Van den Boomen looked at how children respond to seeing and hearing certain stimuli, but not at how they affect interaction with their parents. Together with an international group of researchers, Junge and Van den Boomen will work on the approved interdisciplinary EU project SAPIENS (ShAPIng the social brain through Early interactionNS).



“It may sound paradoxical, but our research shows that more complexity can bring solutions closer.”



Maarten Hajer
Professor of Urban Futures

At the ‘Pathways to Sustainability’ conference, held on 24 January 2019, almost 500 participants, some 55% from within the university and 45% from other universities, ministries, business or NGOs, listened to a wide range of keynote speeches. From a memorable, heart-felt speech by Diederik Samsom and an articulate plea for new diets from the Green Protein Alliance director Jeroen Willemsen, to a more philosophical and reflective take on the sustainability challenge by Harvard professor Sheila Jasanoff. The afternoon break-out sessions were based on different formats and featured engaging conversations about various sustainability challenges. The final panel discussion was the highlight of the event, with a debate on how the university needs to change in order to meet today’s sustainability challenges.



“The LettuceKnow project will yield important information about the growth processes and resistance of lettuce.”



Guido van den Ackerveken

Professor of Plant-Microbe Interactions

With funding of almost 6 million euros, the LettuceKnow research project will ensure that lettuce becomes more resistant to pathogens and climate effects, and that it can be grown more effectively in new cultivation systems. Led by Guido van den Ackerveken, research groups from Utrecht University, UMCU, Wageningen and

Leiden will chart the properties and genetic data of 500 wild and cultivated types of lettuce. “Together with the companies involved, we’ll employ the useful properties that are detected to cultivate new and sustainable types of lettuce, which will eventually end up in our salads”, explains van den Ackerveken.

A portrait of Linda Senden, a woman with glasses and a leopard-print shirt, smiling. The background is a blurred indoor setting.

“The Network enables us to have a real impact on gender equality law, policymaking and enforcement.”

Linda Senden

Professor of European Law

Utrecht University will be coordinating the European Gender Equality Law Network for the next four years. The network is an extremely important advisory body to the European Commission. It comprises equality experts from

36 countries, who report on all of the problems encountered when implementing EU gender equality law in daily practice. Senden is one of the chairs of the Gender & Diversity Hub.

WE NEED STUDENTS WHO ARE EAGER TO FIND SOLUTIONS TO THE WORLD'S MOST PRESSING PROBLEMS



Why are populist political parties growing in popularity? Should we be concerned about this? How has migration developed, and how has it contributed to shaping healthcare and education policy over time? To help address our world's biggest challenges, we need experts who are able to approach societal issues from various perspectives. With this in mind, Utrecht University has launched a Bachelor's in Philosophy, Politics and Economics (PPE), an interdisciplinary programme with academic foundations in the research area of expertise of Institutions for Open Societies.



“Unfair judgements fuel radical beliefs, extremist behaviour and terrorism.”

Kees van den Bos

Professor of Social Psychology and Empirical Legal Science

Why do people radicalise? How and when do they start sympathising with terrorist acts? Last October saw the launch of a book entitled *Why People Radicalise* written by Kees van den Bos. The book is the first systematic review

of all the available scientific literature on these subjects. Van den Bos is one of the chairs of the Security in Open Societies Hub, which specialises in topics of security, terrorism and the rule of law.

A close-up portrait of Marianna Tryfonidou, a woman with short, wavy brown hair, smiling warmly. She is wearing a white lab coat. The background is softly blurred with warm, golden light spots.

“The ultimate goal is to translate our research into treatments for people and animals.”

Marianna Tryfonidou

Professor of Regenerative Orthopaedics

“There’s still no good treatment for chronic back pain,” says Marianna Tryfonidou. “Major surgery can help, but it’s by no means always enough.” This is something that the Professor of Regenerative Orthopaedics wants to change, first for dogs and later for people. She has established a consortium of twenty partners for this purpose, and won a 15 million-euro grant from the European

Commission’s Horizon 2020 programme. The plan is to use specially-cultivated stem cells to develop a treatment that can rejuvenate problematic intervertebral discs. “In five years time, it will be shown that this treatment method is safe, and the first clinical steps will be taken for dogs with back pain,” says Tryfonidou.



“Fertilisation in the oviduct delivers embryos with better characteristics for producing offspring.”

Bart Gadella

Associate Professor, Faculty of Veterinary Medicine

Test-tube fertilisation is a commonly-used technique for treating infertility and the production of embryos in both humans and livestock-breeding. In a natural context, fertilisation takes place in the oviduct; this is more efficient and produces

embryos with better characteristics for producing offspring. Gadella has designed a 3D bovine-oviduct-on-a-chip culture system, allowing fertilisation to take place that is more like the natural situation than test-tube fertilisation.

“An important first step in the development of new antibiotics.”



Marc Baldus
Professor of NMR Spectroscopy

“Many of our current antibiotics kill bacteria by making a hole in the outer membrane”, explains Baldus. Thanks to research undertaken in Utrecht, new insights have been gained into the working of a protein complex that maintains the outer membrane of a bacterium. If this protein complex is disabled, the membrane can no longer remain intact and the bacterium dies. This could represent a promising new attack-route for antibiotics. Baldus makes a comparison: “It’s like sabotaging a car in a different way; rather than immediately breaking the engine, you disable the oil pump, so that the car overheats and breaks down by itself.” This new insight may lead to new kinds of antibiotics – no insignificant goal, given that antibiotic resistance is becoming an ever-greater problem.



“We investigate the link between autism and intestinal problems.”



Aletta Kraneveld
Professor of Pharmacology

Preventing autism by adapting the diet of a group of young people at risk: that is the ultimate aim of a major research project involving Utrecht University. The research is backed by 14.2 million euros of funding from the European Commission. There is still no treatment that can prevent or reduce the risk of autism. “It is known that bacteria may

play a role in the development of autism,” says Aletta Kraneveld, Professor of Pharmacology. “But we don’t yet know what the exact link is between this condition in the brain and the intestines.” The research aims to use dietary interventions to reduce intestinal problems, and through this reduce the risk of autism as well.

LARGE BEQUEST FOR UTRECHT UNIVERSITY

Philanthropy is gradually becoming more and more important to science. Last year, Utrecht University received the largest bequest in its history. Ms Johanna Alida van Leerzem left her assets, worth 1.2 million euros, to the university where she studied Medicine in the 1950s. The money will be administered by the Utrecht University Fund. Her generous gift will be used to support clinical scientific research by young researchers in the field of internal medicine.



FIRST-EVER BLENDED CONFERENCE

In order to share knowledge and experiences of Digital Education and boost teaching quality, Educate-it organised the first-ever blended conference: a 'virtual' online pre-conference and a face-to-face event in Utrecht. The conference was organised on behalf of LERU's Thematic Group on Digital Education, and over 500 people from more than 45 different countries registered for the online component. As the keynote speaker and EU delegate Themis Christophidou said: "Let's break down barriers and give all learners a fair chance to make the most of their talents!"

uu.nl/leruconference

HONOURS EDUCATION PROVIDES TEACHERS WITH NEW APPROACHES

Honours teachers create a safe and supportive environment for motivated students, where the latter can push their limits and exceed academic expectations. The aim of the UU Honours Teaching Programme is to train teachers to provide honours education. Every year, about 15 teachers are selected for the programme. They include João Trabucho Alexandre from Geosciences: "I think it is necessary that we, teachers in higher education, continually expand, revise and reflect on our practice. Honours education provides teachers with an opportunity to experiment with new approaches to teaching. When successful, these new approaches can and should percolate through to our regular programmes."

uu.nl/honoursteaching

THE TLL AUTUMN FESTIVAL IS ALL ABOUT TEACHING INNOVATIONS

The Teaching and Learning Lab (TLL) is the Utrecht University hub for experimenting with and researching new forms of education. On 30 November, more than 200 lecturers, students, school pupils, representatives from companies and educational institutions took part in the third TLL Autumn Festival. Isabel Arends (Dean of the Faculty of Science) and Judith Tielen (House of Representatives, VVD), opened the festival and emphasised the importance of educational innovation. The participants could then choose from almost 40 workshops on topics including online tools, virtual and augmented reality and co-creating education with students.

uu.nl/autumnfestival



AGENDA

UUnited music festival

A spectacular event organised by the Parnassos Culture Centre, with a big band, choirs and orchestras consisting of around 450 Utrecht students, staff and alumni.

📅 Thursday 28 March
📍 Tivoli/Vredenburg

uu.nl/uunited

Taal doet meer dinner

Getting Utrecht talking: an opportunity to meet new people from different language backgrounds in order to promote interchange and greater diversity.

📅 Monday 1 April
📍 Academiegebouw/University Hall

uu.nl/taaldoetmeer

The Prince Claus Chair

Dr Veena Srinivasan from India has been appointed to the Prince Claus rotating chair for Development and Equity where she will be working on sustainable and inclusive food production in delta regions.

📅 Tuesday 7 May
📍 Academiegebouw/University Hall

uu.nl/princeclauschair

Utrecht Marathon

The 38th edition of the all-new marathon, made possible with the support of the Utrecht Science Park. Distances of 42, 21 and 10 km. The proceeds will be donated to the Dutch Cancer Society - KWF Kankerfonds.

📅 Monday 12 May
📍 Through the heart of the cathedral city

uu.nl/utrechtmarathon

UUnited music festival



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