Bright minds, better future

“We will soon be able to treat burn victims by printing new skin.”

MSc. Ouafa Dahri
Master’s student Biofabrication
Education and research at Utrecht University play a huge role in important academic breakthroughs and social debate. In this edition of The Highlights, you can read about subjects including a new approach to youth traumas, treatments for auto-immune diseases and our contribution to the debate on disparity in society.

Utrecht University likes to take the lead. Not only in interdisciplinary top-class research, but also (and perhaps mainly) by giving a new generation of students a broad-based education through small-scale teaching in a diverse and inspiring community.

High-quality university education starts with expert lecturers, who are trained as both researchers and lecturers. Utrecht University achieves this level of expertise by systematic evaluations and inspections of teaching and by instilling a culture of educational innovation.

These highlights give an impression of the efforts made by our staff. It is striking that we are getting better at pooling our resources with a large group of social partners. We are pleased with this progress, as this will ultimately enable us to rise to the challenges facing the human race today.

The Executive Board,
Anton Pijpers, Annetje Ottow and Bert van der Zwaan
Recently appointed as Distinguished Professor, Dr. Bert Weckhuysen intends to experiment with a combination of education, research and social applications in the field of Catalysis, Energy and Sustainability.

“I think it’s essential to link fundamental research to possible social applications, but it will only succeed if we are also able to combine academic research with new forms of teaching. My passion is to understand the working mechanisms of catalysts, so that we can use various raw materials to create new, better materials for a more sustainable society. I want to pass on my passion to the next generation of researchers.”
The university presented two student awards during the opening of the Academic Year last September.

Roos Ykema, student of Environmental, Natural Sciences and Law, won the Exceptional Extracurricular Achievements Student Award for her WelnU initiative that provides language lessons for refugees. Maarten Bransen, alumnus of the Master’s programme in Chemistry and Physics, won the award for the best Master's thesis. Roos: ‘It’s obviously great to win this award, but still the main aim is to help refugees get on.’

“‘We are buoyed by the positive reactions of refugees and volunteers.’”

Roos Ykema
Winner Exceptional Extracurricular Achievements Student Award

[uu.nl/studentenprijzenuu](http://uu.nl/studentenprijzenuu)
“Does money make you happy?”

Oscar Gelderblom
Professor of History

“We want to study how the Dutch organised their finances in the past, and chart the financial history of the Netherlands.” These are the words of historian Prof. Oscar Gelderblom. He and his team, together with the NTR public service broadcaster, are rummaging through people's attics in search of old cash books. The six-part TV series Kasboekje van Nederland, broadcast on Dutch television (NPO 2) from Wednesday 28 March, tells the story behind the cash books.

uu.nl/kasboekje
In cooperation with NTR service broadcaster.

COMING OUT DAY 2017

On 11 October 2017, Coming Out Day, Utrecht University, Utrecht University of Applied Sciences and the Anteros LGBT student society organised a mini-conference. The event’s motto was, Raising the profile of sexual diversity in higher education and the city of Utrecht.

uu.nl/comingout
In November 2017, the European Green Office (GO) Summit took place at Utrecht University. The GO Summit is an annual event for students and staff members of GOs. They are brought together to establish a strong network and to expand the GO movement, an international movement of students and staff engaged in moving higher education towards sustainability. This year, Utrecht University welcomed 91 participants from 19 GOs and 6 initiatives in six countries to connect, learn together, share ideas and gain inspiration. Eva Gotges, Green Office Maastricht: “We were really inspired to improve catering and learn from the experience of Green Office Utrecht, where the caterer is now their strong ally in achieving sustainability goals.”

greenofficemovement.org
uu.nl/gosummit

“We take our responsibility regarding the transition to a sustainable society seriously.”
Anton Pijpers
President of the Executive Board

Utrecht University was one of the first universities in The Netherlands to sign the sustainable procurement manifesto. Dutch ministries, provinces and municipalities were among the earlier signatories. By signing this document, the university commits itself to taking into account the effects on people and the planet when buying products and services. “The university wants to take on its responsibility in the transition to a sustainable society,” says President of the Executive Board Anton Pijpers, “not only by developing, sharing and applying academic knowledge, but also by working towards the sustainable operation of the university and the campus, and involving staff and students in this process.”

uu.nl/duurzameinkoop
“The first butterflies drank dinosaur tears.”

Bas van de Schootbrugge
Assistant Professor of Palaeoceanography

The very first butterflies did not live on the nectar from flowers; they survived by drinking the tears of dinosaurs and the sap secreted by trees. This is the striking conclusion drawn by an international research team headed by Timo van Eldijk and Bas van de Schootbrugge from Utrecht University, who discovered the oldest fossilised butterfly remains ever found.

uu.nl/mottenenvlinders
For a long time, Jan van Brederode was famous for being a fiery, aristocratic, religious maniac from the Late Middle Ages.

But Mediaeval specialist and Distinguished Professor Frits van Oostrom has rehabilitated him in his book *Nobel Streven* (Noble Endeavour), by examining his improbable life in the minutest detail. Van Oostrom was awarded the *Gouden Penning* prize by the Royal Flemish Academy of Belgium for Science and the Arts for his book. This is an annual award presented to someone who has made an important contribution to the dissemination of science and art. Van Oostrom is the first Dutch citizen to receive it. His work stands out for the way it combines popular appeal with academic gravitas. Van Oostrom: “If I’d written it as a novel, the critics would almost certainly have said: ‘His imagination’s got the better of him.’ But this really happened.”

“*The book is an ode to the story of the past.*”

Frits van Oostrom  
Distinguished Professor

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But Mediaeval specialist and Distinguished Professor Frits van Oostrom has rehabilitated him in his book *Nobel Streven* (Noble Endeavour), by examining his improbable life in the minutest detail. Van Oostrom was awarded the *Gouden Penning* prize by the Royal Flemish Academy of Belgium for Science and the Arts for his book. This is an annual award presented to someone who has made an important contribution to the dissemination of science and art. Van Oostrom is the first Dutch citizen to receive it. His work stands out for the way it combines popular appeal with academic gravitas. Van Oostrom: “If I’d written it as a novel, the critics would almost certainly have said: ‘His imagination’s got the better of him.’ But this really happened.”

uu.nl/nobelstreven  
uu.nl/fritsvanoostrom
The Centre for Academic Teaching (CAT) pools all the expertise and current initiatives at Utrecht University relating to educational innovation and the development of lecturers - from novice teachers to educational leaders. Manon Kluijtmans, Academic Director of the Centre: “Fortunately, teaching is gaining in status as a part of an academic career. We want to be a catalyst for exchange between lecturers, stimulate and support them in their personal and professional development. More and more lecturers are finding their way to the Centre for gaining and sharing knowledge, training, research and support in matters of educational innovation.”

uu.nl/cat

“Lecturers are the key to our students’ success.”

Manon Kluijtmans
Director of The Centre for Academic Teaching
“Sustainability is our collective wake up call. The challenge is to tap into our imagination and think of pathways towards sustainability.”

With these words Maarten Hajer, Professor of Urban Futures and Scientific Director of the strategic theme Pathways to Sustainability, opened the annual Utrecht University sustainability conference, held at TivoliVredenburg on 9 February 2018. This year's program focused on transdisciplinary research. Nearly 500 scientists, policy makers, consultants, directors, students and advisors participated in the event and learned from local, national and international experts. With the Pathways to Sustainability programme, Utrecht University will invest in collaborations with societal partners. President Anton Pijpers said: “It is an invitation for bright minds to work on a better future.”

uu.nl/ptsconference
An ambitious project has been established in the north-west area of Utrecht: the circular transformation of the historical Werkspoorkwartier industrial district. Here, a consortium of building owners, developers, SMEs and Utrecht knowledge institutions are working together to create an inspiring development area in Utrecht for creative entrepreneurs. Utrecht University scientists are supporting and evaluating the transformation and the Utrecht Sustainability Institute is coordinating the project. Ernst Worrell, Professor Energy, Resources & Technological Change: “We have the unique opportunity at Werkspoorkwartier to develop tools that measure the impact of the circular economy. This helps us to make better choices, for the environment, the city and its citizens.”

Financially supported by the European Regional Development Fund (ERDF).

Biofuels can play an important role in combating climate change. However, biofuel production often requires the use of new agricultural land. This results in the loss of natural vegetation, such as trees that naturally store CO₂ as they grow. Therefore, opinions on the long-term positive impact of biofuels vary. Utrecht University scientists have developed a method to evaluate global and local biofuel availability, and the long-term effects of its production. Detlef van Vuuren, Professor in Integrated Assessment of Global Environmental Change: “If we only grow biofuel crops at locations that lead to meaningful reduction of CO₂ emission, production will be restricted to around 30 exajoules per year. That is one third of global energy consumption for transport.”

Our publication helps us understand where biofuels can be produced in order to achieve a substantial CO₂ reduction.”

Vassilis Daioglou
Researcher at Utrecht University and the PBL Netherlands Environmental Assessment Agency

“We demonstrate the opportunities for upcycling used materials.”

Tony Schoen
Professor & Project leader

An ambitious project has been established in the north-west area of Utrecht: the circular transformation of the historical Werkspoorkwartier industrial district. Here, a consortium of building owners, developers, SMEs and Utrecht knowledge institutions are working together to create an inspiring development area in Utrecht for creative entrepreneurs. Utrecht University scientists are supporting and evaluating the transformation and the Utrecht Sustainability Institute is coordinating the project. Ernst Worrell, Professor Energy, Resources & Technological Change: “We have the unique opportunity at Werkspoorkwartier to develop tools that measure the impact of the circular economy. This helps us to make better choices, for the environment, the city and its citizens.”

Financially supported by the European Regional Development Fund (ERDF).
**INSTITUTIONS FOR OPEN SOCIETIES**

Within research theme Institutions for Open Societies, research is conducted on the formal and informal rules (institutions) of human action. Why do societies develop so divergently? And how do institutions contribute to the formation of open and sustainable societies?

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“Entrepreneurship is a social activity by definition.”

*Harry Hummels*

Professor of Social Entrepreneurship

Harry Hummels is Professor of Social Entrepreneurship. This describes a form of entrepreneurship whereby social and financial aims go hand in hand. His chair is partly funded by Tony’s Chocolonely. “The company is fighting for an end to child slavery in the cocoa industry. It’s generally becoming more noticeable that major companies are doing more to support social or environmental goals. This is pure social gain.” Hummels works for the ‘Social Entrepreneurship Initiative’, an interdisciplinary project that works alongside universities, social partners and companies to promote social and environmental innovation in a commercial way.

[uu.nl/socialentrepreneurship](http://uu.nl/socialentrepreneurship)

In cooperation with SIF (the Social Impact Factory)

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Last September, Utrecht University welcomed excellent scholars from all over the world to the 2017 World Interdisciplinary Network for Institutional Research (WINIR) conference covering interdisciplinary in-depth issues around Institutions & Open Societies.

At the conference, Professor in Innovation Studies Koen Frenken organised a round table, ‘ICT, open societies and new institutions’. The round table raised the question of whether platforms are a new type of institution. It concluded that online platforms, such as Uber and Airbnb, are indeed new institutions: they are companies that organise markets and set their own rules for inclusion and exclusion. Governments should think hard about what their role should be in this new reality. Frenken: “It was wonderful to be at the lively heart of scientific impact around Institutions & Open Societies and academic excellence.”

[uu.nl/winir](http://uu.nl/winir)

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“It was wonderful to be at the lively heart of scientific impact.”

*Koen Frenken*

Professor in Innovation Studies

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Bright minds, better future
Integral insight on the development of broad wellbeing in the Netherlands

Large regional differences in broad wellbeing

In urban areas higher incomes but lower safety
In more rural areas a better environment and higher housing satisfaction

Utrecht University and Rabobank have developed the Broad Wellbeing Indicator (BWI). Unlike the Gross Domestic Product (GDP per capita), the BWI measures and assesses not only the economic situation, but also other factors, such as unemployment, job security, education, health, the environment, housing, safety and happiness. The BWI 2017 shows that economic growth in that year has still not resulted in an equivalent rise in broad wellbeing experienced by Dutch households. While the GDP had in 2016 already returned to its pre-crisis level, this was not the case with broad wellbeing. The BWI also shows the differences between the various regions in the Netherlands. It revealed, for example, that broad wellbeing is substantially lower in the three large Dutch urban areas compared to elsewhere in the Netherlands.
“Better off with modest growth”

Utrecht University places quality above quantity

Slight rise in number of students and good appreciation level

With stability and quality in mind, the university intends to continue operating the ‘quality above quantity’ policy in the years ahead. This means that Utrecht University does not have explicit ambitions to expand and is aiming for a total student population of around 30,000 registered students.

**TOTAL NUMBER OF STUDENTS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>30,066 (+2.2%)</td>
</tr>
<tr>
<td>2014</td>
<td>30,754 (+1.6%)</td>
</tr>
<tr>
<td>2015</td>
<td>31,259 (+0.05%)</td>
</tr>
<tr>
<td>2016</td>
<td>31,275</td>
</tr>
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**STUDENT INTAKE**

- **BA** = Bachelor
- **MA** = Master

<table>
<thead>
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<th>Year</th>
<th>BA</th>
<th>MA</th>
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<tbody>
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<td>6,553</td>
<td>4,455</td>
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<tr>
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<td>6,403</td>
<td>4,131</td>
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<tr>
<td>2015</td>
<td>6,261</td>
<td>4,046</td>
</tr>
<tr>
<td>2016</td>
<td>6,279</td>
<td>4,585</td>
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</table>

**NUMBER OF DEGREES OBTAINED**

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<th>BA</th>
<th>MA</th>
</tr>
</thead>
<tbody>
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<td>3,754</td>
<td>4,304</td>
</tr>
<tr>
<td>2014</td>
<td>3,930</td>
<td>4,234</td>
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<td>4,146</td>
<td>4,524</td>
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<tr>
<td>2016</td>
<td>4,221</td>
<td>4,340</td>
</tr>
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</table>

**OVERALL RATING**

- **Nationale Studenten Enquete**

<table>
<thead>
<tr>
<th>Year</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>4.00</td>
</tr>
<tr>
<td>2014</td>
<td>3.97</td>
</tr>
<tr>
<td>2015</td>
<td>4.02</td>
</tr>
<tr>
<td>2016</td>
<td>4.06</td>
</tr>
</tbody>
</table>

**STUDY SUCCESS RATE***

- **Utrecht University**
- **National average**

*Percentage of students that graduate within the official time period with no delays.

- 2013: 64% (Utrecht), 66% (National average)
- 2014: 67% (Utrecht), 68% (National average)
- 2015: 67% (Utrecht), 69% (National average)
- 2016: 67% (Utrecht), 70% (National average)

Bright minds, better future
The university’s study success rate is **2% higher** than the national average, and has **risen by 4%** in the last 5 years.

The Executive Board is keen to sustain the modest growth. The market share therefore remains roughly unchanged, resulting in reasonably stable governmental funding. Utrecht University would like to compensate for the above mentioned decrease by attracting more international students, thus ensuring that intake remains unchanged. The Executive Board has, however, expressly stated that this must not come at the expense of quality.

In the coming years, the Board wants to work towards a different ratio of Bachelor's and Master's students. For years now, this ratio has been reasonably stable at Utrecht University, with 2/3 (20,000) Bachelor’s and 1/3 (11,000) Master's students. Leading international research universities often have a higher percentage of graduate students. The Board is keen to focus on slightly increasing the number of Master's students at the university.

This would offer a better reflection of the university's research-intensive profile. The majority of international students currently come to Utrecht University to take their Master's degree.

**Source:** uu.nl/geringegroei
The million-dollar question is: can we distinguish specific aspects in birdsong that also play a role in the way children acquire speech? Zebra finches provide a crucial starting point for studies involving humans. Bolhuis: “It’s important that we learn more about the fundamental principles of learning processes in these birds. How do they learn most effectively? We may be able to apply these findings at a later stage to help children with language development disorders.”

 uu.nl/birdsong

“Linguists often talk about urban stuff”, Nortier knows. “Multilingualism in the city for example is very trendy. Only, up till now, the urban aspect has simply been the background against which research was conducted, while full knowledge of the facts was missing.” Conversely, urban geographer Irina van Aalst once studied the use of public squares by groups of youngsters. The different subgroups mark their boundaries with clothes and music. Nortier: “That language also plays a part in that had never been taken into consideration.”

 uu.nl/languageofthecity

“Studying language in the city this way is new to me.”

Jacomine Nortier
Associate Professor, Sociolinguist

“There are similarities between the way songbirds learn to sing and children learn to talk.”

Johan Bolhuis
Professor of Cognitive Neurobiology

uu.nl/birdsong
“We have observed that the DNA of people who suffered trauma in their youth changes in response. We have found that these changes are related to the way a person copes with stress. However, not everyone who suffers from youth trauma develops adaptive changes in their DNA. In our studies, people who suffered from mental illness did not adjust their DNA to their traumatic experiences.”

Charlotte Onland-Moret
YOUth Cohort manager

YOUth studies covers how children grow up and how young brains develop. How do the aspects involved in that process influence a child’s behaviour? “We measure how the brain grows and develops from pregnancy to around 18 years of age. Our main question is deliberately very broad, as we wish to collect as much high-quality data as possible. This will allow us to create an infrastructure in which we can carry out high-quality scientific research for many years to come. Other researchers will be able to use our data to answer all kinds of scientific questions about the development of children.”

Marco Boks
Psychiatrist Brain Centre Rudolf Magnus

“If your DNA doesn’t change in response to trauma, the risk of depression is higher.”
Utrecht scientists start biobank with living breast cancer cells

Scientists, led by Prof Hans Clevers (Utrecht University, UMC Utrecht, Hubrecht Institute & Princess Maxima Centre for Pediatric Oncology) and Prof. Edwin Cuppen (UMC Utrecht), have set up a biobank with living tumour cells from more than 150 breast cancer patients. The biobank enables research into tissue and genetic features of breast cancer tumours (organoids), and gives rise to information regarding the specific characteristics of breast cancer. This way, the mechanism of action of various medicines can be tested in a personalised way, without directly exposing the patient to the treatment.

"A testbed for new technologies to map out air quality."

Roel Vermeulen
Professor of Environmental Epidemiology

Thanks to the rapid pace of innovation in the field of inexpensive sensors, ICT and big data, we will soon be able to measure and interpret our living environment in a radically different way. In order to accelerate this development, Utrecht University and the National Institute for Public Health and Environment opened the Living Environment Innovation Lab on 19 September 2017 at Utrecht Science Park.

"This innovation lab offers a testbed for new technologies for measuring the environment and related health effects", says Roel Vermeulen, Professor of Environmental Epidemiology and Exposome Science at the Institute of Risk Assessment Sciences at Utrecht University. "With these new technologies, researchers, government agencies and citizens will be better able to map out air quality. They will allow us to collect scientific knowledge in order to implement new policies and interventions, while at the same time contributing to the social debate about our living environment."

uu.nl/biobank

uu.nl/livingenvironment

Bright minds, better future
Annelien Bredenoord wins the *Publiprijs* 2017

Professor of Ethics of Biomedical Innovation Annelien Bredenoord won the *Publiprijs* 2017. The prize is awarded by the university and is designed to stimulate academics to take part in social debate through publications in the press. Bredenoord attracted a great deal of media attention for comments regarding the effect of medical innovations, such as stem cell therapy, reproduction technology, big data and biobanks, on patient care and society. “I think it’s great that the university awards the *Publiprijs*. It’s a signal to its researchers that publishing results and knowledge is a worthy and important aspect of the academic process and a core responsibility of any university”, says Bredenoord.

“Conveying the results of knowledge is a core responsibility.”

Annelien Bredenoord
Professor of Ethics of Biomedical Innovation

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Utrecht students win gold at iGEM competition

Every year, thousands of students worldwide take part in iGEM, a synthetic biology competition in Boston, USA, where engineering meets biology.

Undergraduate students from over 300 international teams come together in what is the apex of their year-long efforts. These teams are challenged with solving real-world problems by building genetically engineered systems using standard interchangeable biological parts called BioBricks within living cells. In 2017, Utrecht University sent its first team to the iGEM competition – the largest synthetic biology competition in the world. The team excelled at their debut and won a gold medal.

Utrecht University • HIGHLIGHTS
AGENDA

FROM 1 APRIL TO 30 NOVEMBER
Year theme Botanical Gardens
From basic tuber to turbo-beetroot
How and when did people start farming and what has been the effect on culture and nature? An exhibition and an ‘edible’ walk through the Science Park garden.

uu.nl/botanischetuinen

FRIDAY 4 MAY
Reading and Remembrance Service
In the afternoon, the Executive Board and students will lay a wreath at the University’s War Memorial in the University Hall, and in the evening Studium Generale has organised the 4 May reading, this time delivered by philosopher and publicist Maxim Februari. The title is: Will human rights survive the digital era? (in Dutch)

sg.uu.nl/agenda/2018/4-mei-lezing

APRIL TO AUGUST
Student life in Utrecht since 1945
An exhibition at Het Utrechts Archief on Hamburgerstraat features 330 photographs of student life in Utrecht after 1945, exploring a variety of student matters including flats, jobs, societies and campaigns. The exhibition accompanies a new book on the subject.

Entrance is free.

ddm.works/studenten-leven

MONDAY 3 SEPTEMBER
Start of the Academic Year ceremony
The official opening of the Academic Year in the Domkerk, followed by a reception in the University Hall.

uu.nl/organisatie/profiel/traditie-en-historie

Botanical Gardens, “From basic tuber to turbo-beetroot”
An exhibition and an ‘edible’ walk through the Science Park garden.