# Radbode #1

Staff magazine Radboud university medical center

# September 2017

**Speak your mind!** Four colleagues on getting used to Dutch life

# Understanding addiction

A Dutch-Indonesian education program

# Stamppot or rice?

Fine-tuning the menu for exchange students

Mihai Netea and Jos van der Meer:

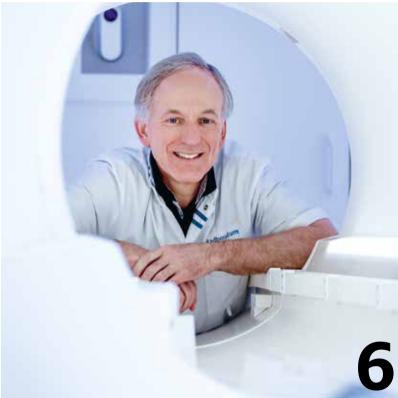
Special edition

# **Everyone needs an inspiring mentor**

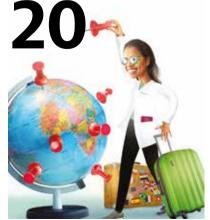
Radboud umc

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**ETHICS** – Is strict legislation holding the Netherlands back when it comes to research on embryos? No, says Simone van der Burg. But it does raise ethical questions.

SCIENCE - HIV is on the rise in Indonesia, due to the 30 intravenous use of opiates. Psychiatrist Arnt Schellekens explains how addiction care and addiction medicine could help to counteract this negative trend.

**RESEARCH** – In the summer of 1990, young Romanian medical student Mihai Netea met professor Jos van der Meer, who gave him the opportunity to do research in Nijmegen. Twenty-seven years later, Mihai hopes to establish a center for cutting-edge research in Romania. An interview on the importance of inspirational mentoring.

FACTS AND FIGURES – Why do you need a BSN number? What insurance is obligatory in the Netherlands? And just how many bikes do Dutch people own? Find out the answers to these and other questions!

**RESEARCH** – Thirty years ago dentist Jo Frencken developed a procedure to fill cavities without using a drill. His work recently won him China's most prestigious award for science, as well as many other international acknowledgments. Jo explains how it all started in Tanzania.

# AND MORE

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# **Radboudumc**

This English version of the Radbode is presented to you by the internationalization committee of Radboudumc. The internationalization committee is tasked with the coordination and continuity of the internationalization policy of Radboudumc in the fields of education, research, patient care and the support services. With this special dition of the Radbode we want to pay tribute to the international community that is part of Radboudumc. Thank you for all your hard work!

# Personalized healthcare without borders

Welcome to the very first English edition of Radbode. Its publication is timely, as it reflects both the growing numbers of our international staff and students, and the strategy of Radboud university medical center for the years to come. An international approach is already the "new normal" in our research. Many of the issues that contemporary science seeks to address are simply too complex to be solved by a single researcher or institute. Therefore, the majority of the studies that we undertake are international initiatives, enabling researchers to benefit from expertise and resources across borders. We partner with institutes all over the world, such as the Institute for Research in Biomedicine in Barcelona and the Kilimanjaro Christian Medical University College in Moshi, Tanzania. And 20 percent of our PhD candidates come from abroad – some are featured in this magazine.

This international attitude is echoed in our education. A substantial amount of our modules and programs are available in English, making it easy for foreign students to study in Nijmegen. Two-thirds of the students of our prestigious Master in Molecular Mechanisms of Disease are indeed from abroad. Our Bachelor programs for Medicine and Dentistry are a conscious

Happy reading!

## EDITORIAL

✗ Karen Jochems ☎ Eric Scholten

PAUL SMITS. ACTING CHAIRMAN OF THE EXECUTIVE BOARD RADBOUD UNIVERSITY MEDICAL CENTER

exception, because being able to communicate in the language of your patients - in this case, Dutch - is an important skill for any doctor. However, 60 percent of those Bachelor students are internationally oriented and choose to follow part of their program abroad. Last, but certainly not least, our patient care is becoming more and more international. Cooperation agreements with medical centers in the Cleves region of Germany are already in place and we recently became part of the European Reference Network, an initiative of 24 institutes for the better treatment of rare diseases. This could encourage patients from all over Europe to visit Nijmegen - physically or via an online platform - for the treatment of hereditary forms of cancers, for instance. Personalized healthcare without borders: that is what we in Nijmegen believe in and what we are striving to achieve. It is my pleasure to introduce you, through this magazine, to a small selection of the people who contribute to this ambition on a daily basis: PhD candidates, staff, researchers, professors and doctors. I am sure that their stories will inspire you.

PAUL SMITS

2.6

4 Radbode

As an international outlook is part of Radboud university medical center's DNA, it is a happy coincidence that the Genetics department boasts the greatest number of international colleagues: 36. They come from an array of countries, as this map from their office clearly shows. Radiology and Nuclear Medicine have the second most international team (33), with Cognitive Neuroscience (31) and Dental Medicine (28) hot on their heels.

a second

Overall, four percent of colleagues on the payroll are not Dutch. Most are from Germany (35%), followed by Belgium (11%), Italy (7%) and Spain (5%). The average age is 38 and 62% are women. In addition to the 382 international colleagues on the payroll, 562 non-natives work, volunteer or train here. And in 2016-2017 there were also 47 exchange students and 41 international Master students. Nijmegen truly welcomes the world.

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COLUMN IS



## IN SHORT



# **ERN: new and** ambitious network

Radboud university medical center has become one of 24 institutes in the European Reference Network (ERN) for the better treatment of rare diseases. Research in Nijmegen will focus on genetic tumor risk syndromes – in other words, hereditary forms of cancer.

Nicoline Hoogerbrugge is excited to be in charge of the new ERN, which she hopes will bring her ultimate goal as a scientist closer: "I dream of being able to prevent cancer."

# Online boost for digital research

On May 1 the online Digital Research Environment (DRE) was launched to enable researchers to store and manage data, and share it securely with fellow researchers inside and outside the Netherlands. The decision to launch DRE - the first initiative of its kind among university medical centers in the Netherlands - is in line with the growing number of research projects and an increase in international collaboration. Using an online platform to share data across borders in a quick and secure manner is rapidly becoming the new standard. The introduction of DRE ensures that Radboud university medical center is ready for the digital future.

# A brain on a chip

A miniature brain, grown in the lab in a Petri dish: it may sound like science fiction but Nael Nadif Kasri and his team have made it happen. Nael grows neurons from stem cells and puts them in a smart Petri dish to track their activity. This enables him to "listen in" on the neurons and monitor their behavior. By analyzing the data, he can easily detect abnormalities and thus shed light on how a person's brain functions, without resorting to scans or surgery. The "brain on a chip", as Nael calls it, could be a valuable tool, for instance for testing the effectiveness of different types of medication on individual patients. "We can test them in the Petri dish instead of on the patient," he says.





# **University Medal for** André van der Ven

André van der Ven has been awarded the Radboud University Medal for outstanding work throughout his career. André has always been a firm advocate of international education and research, and has played a pivotal role in promoting tropical medicine and healthcare in low-income countries. Over the years, he has forged lasting relations with medical centers in Tanzania and Indonesia and has been one of the driving forces behind PRIOR, a network for research into HIV, TBC and malaria. His own work as a doctor in the tropics contributed to his expertise in and involvement with International Health.

# Nano-MRI: effective tool for cancer diagnosis

Can "rust" help detect prostate cancer? Radiologist professor Jelle Barentsz uses a unique procedure that consists of superparamagnetic iron oxide nanoparticles as a MRI-contrast agent for the imaging of lymph nodes in prostate cancer.

"We have now diagnosed some 2,000 patients in Nijmegen using this method," Jelle Barentsz explains. "Traditional methods, like surgical exploration, miss some 40 percent of lymph nodes with metastases. Nano-MRI is less invasive and enables us to diagnose patients efficiently and effectively

within two days." the world: one to three of every five patients treated each week come from abroad. Foreign researchers and revolutionary method frequently visit the clinic.

as the nano-MRI also works in other cancer types. Pilots for, among others, esophageal cancer, pancreatic cancer, rectal cancer and lung cancer have recently started.

Nano-MRI attracts patients from all over physicians eager to learn more about the

Jelle's ultimate goal is for MRI to become standard practice for all cancer patients,

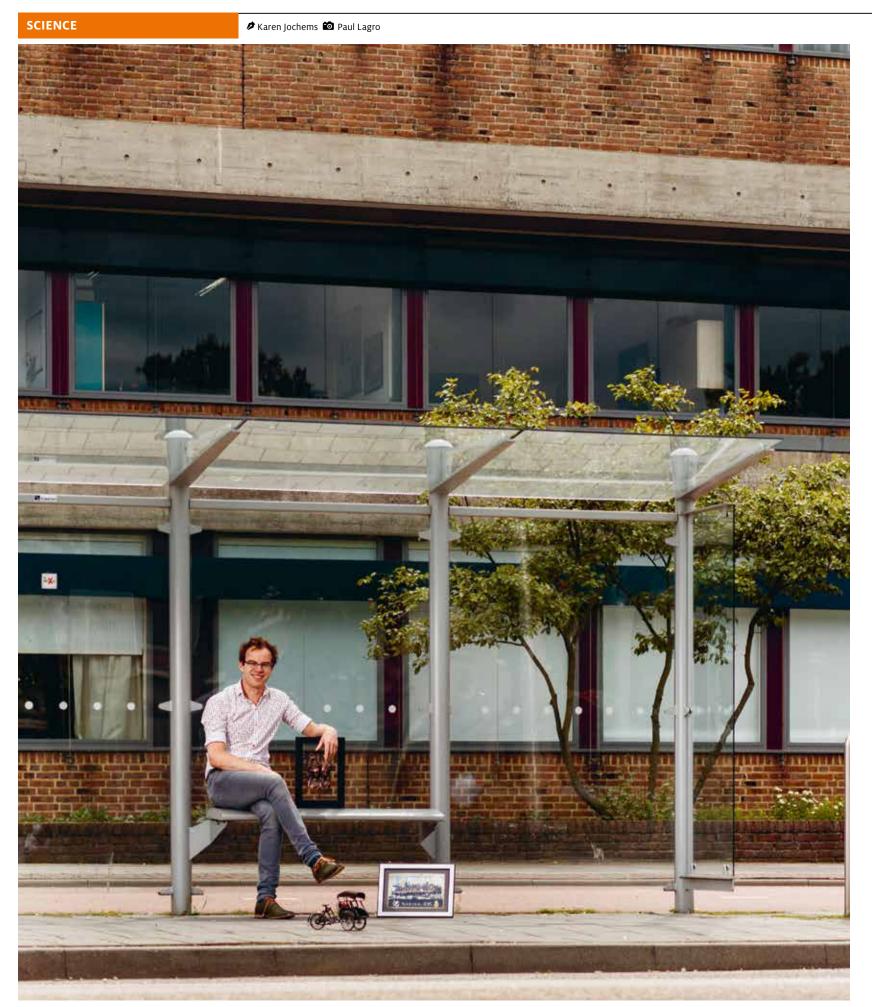
# **COLUMN** | ETHICS

STAFF MEMBERS OF THE MEDICAL ETHICS DEPARTMENT (IQ HEALTHCARE) REFLECT ON A CURRENT TOPIC THIS ISSUE PRINCIPAL RESEARCHER SIMONE VAN DER BURG ON EMBRYOS AND RESEARCH

# The right questions

Here in the Netherlands the Embryo Act regulates the use of human embryos for research purposes: only leftover embryos from IVF procedures may be used. Outgoing minister of Health Edith Schippers proposes extending this Act to allow embryos to be created especially for research purposes. But is this necessary? And perhaps more importantly, is it desirable?

Looking at countries at the forefront of research on embryos (the US, China, the UK) many people may be inclined to conclude that Dutch legislation should be less strict. However, in the increasingly international world of research, local legislation is seldom a restriction. If a certain type of research is prohibited in one country, researchers will move to another country, or the members of a research consortium will redistribute the tasks accordingly to comply with legal restrictions. So does legislation itself hold back research? Probably not. Is a wider availability of embryos desirable? The rise of techniques like CRISPR-Cas gives us the opportunity to modify DNA and treat illnesses at the very core. It could, for instance, help couples that want to start a family but run a high risk of passing on rare but very serious genetic disorders to their offspring. Further research is necessary to treat such diseases at the earliest opportunity, at the embryonic stage. But only a relatively small group of people would benefit from this. And creating embryos for research aimed at perfecting procedures that will make other embryos healthy poses somewhat of an ethical contradiction. On the one hand we need to devaluate embryos to allow us to use them only as instruments for research, while on the other we attach considerable intrinsic value to them as we go to great lengths to improve their health. We need to ask more specifically: which research contributes to the greater goal of healthcare? And what criteria should a research program satisfy to justify the use of embryos? This is more important than answering the question whether legislation needs to be reviewed to further research in general. Not all research projects justify the use of an embryo. We need to evaluate whether it serves health



# "We need to understand **addiction**, not judge it"

There are strong ties between Radboud university medical center and Indonesia. One of the most recent of these focuses on addiction care and addiction medicine. Psychiatrist Arnt Schellekens is one of the driving forces behind it.

Arnt Schellekens has always been fascinated by human behavior, how people think, feel and act. In his opinion, the more behavior deviates from the norm, the more you can learn from it; hence his choice to become a psychiatrist. For his PhD he studied findings on addictive behavior in rats, focusing on the effects of heritable factors and early life stress on the biological make-up of the animals and their behavior. Would the findings hold true for humans, he asked himself, then he set up further research to find out. It was at that moment that his passion for addiction care and addiction medicine was sparked and he himself became "hooked" on the subject. Over the past five years he has been closely involved in setting up educational programs on addiction medicine and care, in the Netherlands and Indonesia. His current research focuses on reducing the societal, psychological, physical and economic impact of addictive behavior.

# How did you come to work in Indonesia?

I spent the final months of my PhD at the academic medical center in Bandung, where I worked at the university clinic and contributed to IMPACT, a program for the prevention and treatment of HIV in Indonesia set up by Professor André van der research.

In the Netherlands addiction is viewed as a biopsychosocial disorder. Reactions to it are mixed: some see addiction as an illness that deserves treatment; others see it as a selfinflicted problem that addicts should solve themselves. In Indonesia addiction is generally associated with crime. There are, for instance, special prisons for drug addicts and dealers. Addicts see themselves as "bad Muslims" who need to be punished. So the perception there is far more challenging than it is here.

Ven. HIV is a huge and rapidly growing problem in Asia in general and in Indonesia in particular (see boxed item). It is closely related to the intravenous use of opiates; addiction behavior is one of the factors underlying the rise of HIV.

More skills and knowledge about addiction can help professionals better diagnose and treat addiction, and help create a basis for prevention. So together with André, Lucas Pinxten and Professor Cor de Jong, I developed and set up a Short Course on Addiction Medicine. which has been running for some two years now. I regularly travel to Indonesia to advise on the curriculum and mentor students, and for

# Does the Indonesian perception of addiction differ to that of the Dutch?

# HIV in Asia and Pacific

5,100,000 people infected with HIV 300,000 new infections every year 57% rise of new infections (2010-2015) Indonesia and Vietnam show the highest rise 80% of HIV infections due to the intravenous use of drugs

Source: Aidsfonds and UNAIDS, figures over 2015

# Translational research

Arnt Schellekens is a great believer of working together with people from other disciplines to get the best research results. For his research he has created translational and multidisciplinary collaborations between the Nijmegen Institute for Scientist Practitioners (NISPA), the Radboud university medical center, behavioral scientists from the Behavioral Science Institute (BSI) and neuroscience colleagues at the Donders Institute for Brain, Cognition and Behavior.



# Are there other cultural differences?

Indonesia is a very large country, full of cultural differences. That is one of the challenges that an addiction curriculum faces. In comparison with the Netherlands I would say that hierarchy plays a bigger role in the workplace than it does here. People tend to do what their boss says without openly questioning it. Indonesians communicate less directly than Dutch people and are politer to each other. Even during the rush hour in a busy city like Jakarta no one loses his cool or starts cursing. That is something we could take on board here! Another striking aspect is the role of spiritualism in society in general and in psychiatric care in particular. This has negative aspects, like sufferers of schizophrenia being subjected to lengthy prayer rituals before medication is considered. But it also means that people are more sensitive to the spiritual needs of (psychiatric) patients.

## How has the Course developed?

Two classes have now taken the Course, with very positive results. The professionals taking part are very enthusiastic and we can clearly see that their perception of and attitude to addiction change through the program. We are confident that this will contribute to easing Indonesia's HIV problem. But participating in a course like this is a huge logistical challenge for many students. Travelling to Bandung can be a major obstacle for prospective students. We are therefore considering the introduction of e-learning modules to enable participants to follow classes from home and only travel to Bandung for a limited number of sessions.

# You are also setting up a project in Tanzania. Is it related to your work in Indonesia?

The project also focuses on HIV but the angle is very different: the co-morbidity between the use of HIV-inhibitors and psychiatric disorders. Initial research shows that medication like Efavirenz can have enormous psychological side effects. This is especially worrying because in Africa a lot of children are born with HIV and have to use medication from a very early age. Add to this a complex family context and there is a huge risk of many children growing up with serious psychological problems: a lost generation, as

it were. Recent studies have shown that there are alternatives for these drugs but more

Arnt Schellekens (1977) is a psychiatrist at Radboud university medical center. He is also a scientific director of the Nijmegen Institute for Scientist Practitioners in Addiction, principal lecturer at the Master for Addiction Medicine. chair of the National **Curriculum Addiction Psychiatry and** secretary of the section Addiction **Psychiatry of the European Psychiatric** Association. Arnt remains closely involved with the Short Course of Addiction Medicine in Bandung. Indonesia.

research is essential to set a process of change in motion. We hope to contribute to this.

# What are your ambitions for the future?

Comparative research shows that education and a better, more positive perception of addiction leads to a more coherent understanding of the problem. If you better understand what it means to be addicted to a substance and what it does to people, biologically, mentally and socially, you see addiction for what it is: a complex and serious disorder that deserves a dedicated approach. The introduction of addiction medicine in the Dutch curriculum - in the Bachelor program and as a separate Master – will contribute to this, I am sure.

Radboud University offers a Master in Addiction Medicine. The program is an initiative of Professor Cor de long and offers professional training to doctors who want to specialize in this field.

Kathrin Thiem (28), PhD candidate, department of Internal Medicine

# "Working on cutting-edge research is really exciting"

# Why did you decide to come to Nijmegen?

I first came here as a Master student and I stayed on to do my PhD. I did my Bachelor in Hannover and wanted to study abroad but not too far away. Nijmegen fitted the bill and it also had a Medical Biology track that I was really interested in.

# What was the most striking difference between Germany and the Netherlands?

Working in English was something that we didn't do in Germany. Almost everything was done in German. For my very first module here I had to write a mini-thesis in English. That was a struggle! Now, as a researcher, I appreciate how important it is to work on your command of English, as it's the international language of research.

# What makes you proud of your work?

I'm doing research into atherosclerosis and diabetes, in connection with the immune system. It's cutting-edge research, which makes it really exciting. But at the same time, it's tangible and something I can explain to family and friends at home. I feel lucky to be able to do this.

# What was the best piece of advice someone gave you about settling in here?

When I was about to come here for my Master, a friend told me not to miss the Introduction Week. At the time, I felt more like staying at home for an extra week and relaxing but I took her advice and I was glad that I did! It was a truly amazing week and I made friends then who I still see now. So even if you're shy and nervous about meeting new people, take the plunge and join in.

## What's your secret passion?

My colleagues know that I like starting new hobbies and that I'm usually really enthusiastic and excited about them. My most recent hobby is jiu-jitsu. I'm sure it won't remain a secret for long, though - I've been practising my moves on colleagues already!

## PERSONALIA

Name: Kathrin Thiem Department: Internal Medicine PhD candidate Research: Lam interested in the role of innate immune cells in the development of atherosclerosis in diabetic patients. We hypothesize that elevated glucose levels, as they are present in diabetic patients, trigger innate immune cells to form plaques in the vessel walls, thereby accelerating the development of atherosclerosis. Moved to Nijmegen in: 2013

# **5 OUESTIONS**

IN THIS FEATURE WE ASK AN INTERNATIONAL COLLEAGUE FIVE QUESTIONS ABOUT THEIR WORK AND ABOUT LIVING IN THE NETHERLANDS.





Valkhof Museum: this museum's 18	collection includes Roman archaeo- university medical center and ideal	logy and modern art.	Hezelstraat: the oldest main shop- 19 Keizer Karelplein: the circular	ping street in the Netherlands intersection that drivers fear most	Kronenburger Park: famous for its 20 De Blauwe Hand: Nijmegen's oldest	medieval ramparts.	Bridges: Oversteek, Snelbinder, craft and specialty beers.	Waalbrug 21 City Hall	Nijmegen Central Station 22 De Waagh: former weigh house and	: Stadseiland: a nice island in the possibly Nijmegen's finest building.	River Waal. You can relax on its A great place to eat, too.	beaches and enjoy the festivals that <b>23</b> De Waalkade: street cafes and res-	are organized there. taurants overlooking the River Waal.	De Honigfabriek: the former factory 24 Ooij: a charming village in lovely	is a hotspot for music, food, drinks natural surroundings	and creativity. 25 The Labyrinth: a work of art on	o Goffert Park Waalkade	1 Goffert stadium: home to local 26 Marikenstraat: a street with	soccer club N.E.C. different shops on the ground floor	2 Radboudumc and upper floors	3 Radboud University and sports 27 Statue of Mariken van Nimwegen	center 28 Statue of Moenen	14 CWZ Hospital 29 Keizer Trajanusplein: an inter-	5 Popcentrum Doornroosje: music section on the outskirts of Nijmegen	center for various genres, especially <b>30 Hunner Park</b>	pop, rock, metal, singer-songwriter,	
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RESEARCH

# "Everyone needs a mentor to realize his full potential"

Interpersonal relations are a key factor in any successful cooperation. Professor Mihai Netea and emeritus professor Jos van der Meer look back on how they began working together.

In the summer of 1990 Mihai Netea, a young medical student from Romania, took his first trip outside his home country to attend a summer school in Amsterdam. It was an incredible experience for him to listen to lectures by renowned experts. No one inspired him more than professor Jos van der Meer. After his lecture, Mihai gathered his courage and asked Jos: "Can I work in your lab?" A week later, Mihai arrived in Nijmegen. It was the start of a long and fruitful cooperation, and a firm friendship.

## **Gifted student**

"Mihai had been with us for a week when Willem Blok, who was showing him the ropes, approached me and said that Mihai was a very special and highly gifted student," Jos recalls. Mihai remembers that time, too: "I wanted to seize the opportunity I had been given, to prove myself. And I really wanted to be able to stay in Nijmegen and do good research."

At the time, customs officials were very suspicious of anyone from the former East Block countries. It was incredibly difficult to successfully apply for a permit. Jos and his

department went to great lengths to ensure Mihai would be able to stay. Jos: "There was a lot of bureaucracy and it took a long time to get the necessary paperwork ready. We often had to come up with 'creative' solutions to satisfy or sooth the authorities."

## The Romanian link

Moving to the Netherlands was a big step for Mihai, but one he knew he had to take: "After the fall of the Iron Curtain and communism, it was virtually impossible to perform high-quality research in Romania. I knew that if I wanted to pursue my dream, I would have to travel abroad." "For a long time, I felt very guilty about taking you, a promising

young scientist, away from Romania," Jos admits. "Had I known then what the future would bring, I wouldn't have been so hard on mvself!"

Mihai's future did indeed prove to be exceptionally bright. A brilliant researcher, his groundbreaking work earned him a series of prestigious awards, with the Spinoza Prize as the ultimate highlight. But he never forgot Romania. He continued to be associated with the University of Medicine and Pharmacy Cluj-Napoca, inspiring Romanian students and researchers with his career. And now, he is on the verge of making a fundamental contribution to science in his home country.

"My colleague Leo Joosten and I are working on a business plan for a Center of Excellence in Cluj, Romania, a place for cutting-edge research," Mihai explains. "The universities of Nijmegen, Bonn and Cluj - with which Leo and I are both associated - are also enthusiastic about our proposal and will participate. If all goes well and our plan is accepted, it

# Groundbreaking work on the immune system

Mihai Netea is one of the most authoritative scientists in the study of the innate immune system. He tries to understand how our body identifies and effectively controls pathogens. His discovery of the "trained immune system" was groundbreaking. In 2016 it earned him a Spinoza Prize, the highest Dutch award in science. He now hopes to be able to translate the knowledge generated by his research into effective treatment for patients. First trials are scheduled to start in Greece and Romania later this year.



could be the start of a multi-million-euro project to create an influential research hub for Eastern Europe."

The proposal is part of the EU Teaming for Excellence program aimed at bridging the gap in research and innovation between East and West. In essence, the Center will provide bright young researchers in Eastern Europe with better opportunities to develop their potential. "Opportunities like the one I myself had here," Mihai adds

# Inspiration powers cooperation

Both Jos and Mihai see international cooperation as the future of science. "The tial," Jos concludes.

Internet and other technological advances have made it easier for us to work together across borders," Jos remarks. "But cooperation is still about people, about making personal connections, inspiring others." "Like you inspired and mentored me," Mihai adds. The two researchers feel fortunate to be able to work with someone who has inspired them both: professor Charles Dinarello.

Mihai: "At 74, he divides his time between the University of Colorado in the US and Nijmegen. But the energy that working with him creates is incredible." "Everyone needs an inspiring mentor to realize his full poten-

# los van der Meer (1947)

is emeritus professor and former chairman of the department of Internal Medicine. He has been a member of the Royal Netherlands Academy of Arts and Sciences (KNAW) since 2003 and was vice president and chairman on the division of natural sciences (2006-2012). Jos is a member of Academia Europaea. He is immediate past-president of the **European Academies Science** Advisory Council (EASAC).

# Mihai Netea (1968)

was born in Clui-Napoca, Romania, where he also studied medicine. He moved to Nijmegen to complete his PhD. Mihai currently heads the division of Experimental Medicine, department of Internal Medicine. He became a member of Academia Europaea in 2015 and joined KNAW in 2016.

## FACTS AND FIGURES

# Everything you need to know about moving to NJJMESEN

# The basics

Are you starting work as a researcher, or have you been accepted as a PhD candidate? The website of the Radboudumc HR International Office provides you with a wealth of needto-know and nice-to-know information on working in the Netherlands and at Radboud university medical center in particular.

www.radboudumc.nl/en/working-at/ international-office

Tip: take a look at the website of Radboudumc Students International Office: www.radboudumc.nl/internationaloffice or Radboud University International Office: www.ru.nl/io/ english Both sites are packed with useful information.

# **Figures**

Inhabitants of the Netherlands own an average of 1.3 bikes each.

1 in 8 inhabitants of Nijmegen was born abroad (CBS/2015).

There are more than 200 nationalities living in the Netherlands.

# Facts

With the exception of serious accidents, vou won't be treated at the emergency room unless your GP has referred you.

It's common practice to make appointments for both formal activities (registering at the council, visiting your GP) and leisure activities (eating out, meeting up for coffee).

# Staff and students from

abroad who are staying in the Netherlands for more than four months have to register as a resident at their local council within five days of arrival.

The BSN used to be called Sofi-number, a term that some people still use.

# Expats united

If you're looking for general information on living and working in the Netherlands, or just want to discuss some of those weird Dutch habits with a fellow expat, take a look at the Expatica website and join the community! www.expatica.com/nl/

# **BSN:** more than a number

The Burger Service Nummer (BSN) is the unique citizen registration number that every inhabitant of the Netherlands has. You need one to open a bank account, make use of the healthcare system, apply for benefits... So basically, you need one to arrange most of the essentials of everyday life. You automatically receive your BSN when you register as a resident at your local council.

# The Nijmegen life

Did you know that Nijmegen is the oldest city in the Netherlands? The city was founded by the Romans and their appreciation of the good life lives on in the atmosphere that the city exudes today. You can find out more about living in Nijmegen on the English version of the council's website. http://english.nijmegen.nl/living

# SURE THING?

**Need to have:** health insurance (ziektekosten), car insurance **Good to have:** homeowners (opstal) insurance, home contents (inboedel) insurance and third-party (aansprakelijkheid) insurance **Optional:** life insurance, legal insurance

(http://www.expatica.com/nl/finance/Insurance-in-the-Netherlands\_100575.html)

# "I feel like I have my own body back"

In 2012 Heidi Farrugia (48) was successfully treated for thyroid cancer. Ten months later, however, she was diagnosed with breast cancer.

"The doctor explained that I would need to have my left breast removed. I immediately asked him about breast reconstruction but he advised me to delay that decision until I had had the operation and chemotherapy. I accepted his advice and had the surgery. Having been confronted with cancer for the third time in my life, I was really shaken. I had always led a healthy life and felt I could no longer trust my own body. The breast removal felt like losing part of my womanhood. I could never accept it. While recovering from chemo I also had my ovaries removed. The doctors said this was not strictly necessary, but I had to do it for my own peace of mind."

## On the waiting list

"After some time I decided to go to an information evening on plastic surgery in Nijmegen. Professor Ulrich was one of the speakers and after it finished, my husband and I stayed on to chat to him. I immediately felt like I could trust him. So I decided to go to him for the removal of my right breast and a breast

longer trusted my body. I have my own body back."

## Commitment

THIS IS THE PERSONAL STORY OF ONE OF OUR PATIENTS, ACCOMPANIED BY EXTRA INFORMATION FROM THE SPECIALIST.

reconstruction during the same operation. The breast did not need to be removed but I no

I was on the waiting list for almost a year. Dr. Ulrich had warned me that I would probably need silicone implants, as I was too thin to have a free-flap procedure. During that year I gained a little weight and when the time for surgery came, I was delighted to hear that I could have a free-flap procedure after all. I had the surgery last November. Although I was scared and it was a difficult operation, I am glad that I decided to do it. I really feel like

"I am now a volunteer for the Borstkanker Vereniging (breast cancer foundation) in Gelderland. We organize activities and support for women and men who are going through or have been through breast cancer. I invited professor Ulrich to hold a talk for us. He immediately agreed, in spite of his very busy schedule. To me, that is further proof of his commitment to his work and to his patients. I have great respect and admiration for him and his team. He always took the time to answer my questions and give me reassurance. I will be forever grateful for the normality I have now regained."

# **BREAST RECONSTRUCTION**

"Our center is the largest in the Netherlands for breast reconstruction using free flaps. We do around 180 microsurgical breast reconstructions per year, for patients living in the Netherlands and Germany. This means using tissue from the patient's thigh, stomach or buttocks to create a new breast. We have developed a special technique to make breasts as symmetrical as possible and to treat lymphedema problems within one procedure. The result is a breast that looks and feels natural. The majority of women much prefer this to a silicone or saline implant

There are ten PhD candidates in our department and we also have a fellowship scheme for young doctors. They spend a year with us to learn how to perform this procedure in the best possible way."



RESEARCH

# The ART of oral healthcare

Can you fill cavities without using a drill? Yes, says dentist Jo Frencken, former Head of International Oral Health in Nijmegen. Thirty years ago he developed a procedure based on this premise, that has since conquered the world: ART.

# Why did you develop Atraumatic Restorative Treatment (ART)?

It all began with a state-of-the-art dentist's chair that was far too heavy to transport. I was working at the University of Dar el Salaam, Tanzania, training dental students in the prevention and treatment of cavitated teeth. Instead of waiting for patients to come to us, I set up a program to visit villages, schools and companies for check-ups and treatment. We tried using the equipment that had been kindly donated to the University, but it was difficult to transport and it required fuel and clean water to operate – both of which were usually lacking at the locations we visited.

So I decided to make use of materials that were easy to transport and locally available: manual dental tools and dental cement. I developed a procedure to scoop out the affected area of the tooth to provide a clean surface for a cement filling, which is pressed into the cavity with a gloved finger. The whole process is low-impact and virtually pain-free for the patient. The locals on whom we tested the procedure were enthusiastic: they were used to having teeth extracted by a dentist but this procedure made it possible to repair them instead. The dental students also explained the basics of oral hygiene to the locals to help them prevent more cavities developing. In a follow-up study nine months later we

discovered that 27 of 28 fillings were still firmly in place and dental decay had not progressed. This was huge encouragement.

## What happened next?

On my return to Nijmegen some four years later I was approached by a professor of Oral Healthcare from Groningen, whom I had met in Tanzania. He was setting up an oral healthcare program in Thailand on behalf of the World Health Organization (WHO) and wanted to include ART. In 1990 the program was launched. It included comparative research, on ART versus traditional methods. Results showed that the quality of both treatments was the same but people clearly preferred ART.

The success of this program led to ART being included in the 1994 World Health Day Program. That was when it really began to take off.

# One of your most recent projects was in China. How did you become involved there?

In 2006 China wanted to set up an extensive oral healthcare prevention program. In view of the sheer size of the country, they were looking for solutions that would make optimal use of the tools and materials available. That's why they thought of ART. It was a great experience to work with the Chinese. I say "the Chinese" but every region has its own cultural identity, so it's difficult to define what's typically Chinese. But everyone who took part in the study was very enthusiastic and extremely conscientious. The effort that the Chinese colleagues put into it was amazing. And the local population readily embraced the new approach, making it a huge success.

# Is that why you received the most prestigious Chinese scientific award last year?

Yes, I think so. We had been working together for 10 years and it was a wonderful recognition of ART and the success that it may have in China.

# What did working in countries like China and Tanzania mean to you?

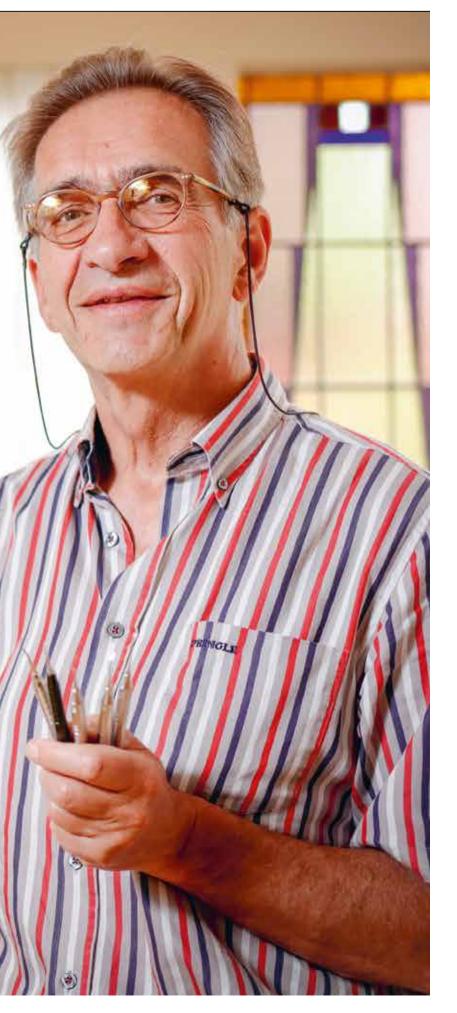
I spent some 50 percent of my professional career abroad. Experiencing different cultures and working with people from different backgrounds has enriched my life in so many ways. I'm a firm advocate of universities taking a more international approach. And I strongly advise students to make the most of exchange programs – they can be life-changing experiences.

## What will the future bring for ART?

I hope that ART will find a place in regular oral healthcare. ART and traditional care complement one another. Research shows that 24 percent of the Dutch adult population is afraid of the dentist, fear of the drill and anesthetic being the most common causes. Using ART for treating cavities that can be reached can help people overcome their fears. Or in the case of very young children, prevent them from becoming afraid in the first place. And we should not forget the elderly. Because of its mobility, the elderly can be treated at home(s) using ART. ART also emphasizes prevention, because cavities are easy to avoid by consuming less sugar and brushing your teeth twice a day. A little more focus on prevention instead of treatment could immensely improve our oral health. I hope that traditional dental care will see the value of ART and embrace it, to the benefit of us all.

# Prestigious acknowledgments

In 2016 Jo Frencken received China's prestigious International Scientific and Technological Cooperation Award for his decade-long efforts to promote a more accessible way of cavity treatment and caries prevention among the Chinese. He was the second Dutch winner in the history of the prize. In July 2016 he received the Yngve Ericson Prize in Preventive Odontology from a Swedish Society of Oral Health. In February 2017, he was made an honorary member of the KNMT (Dutch Dental Association) and in March 2017 he received the Trendley Dean Memorial Award, one of the highest accolades of the International Association for Dental Research.



# ROUNDTABLE

Karen Jochems @ Michiel Moormann

# Is Dutch life easy to adapt to?

Is the Netherlands an easy country to adapt to or do you see big differences between your country of origin and your new home? And what would your advice to newcomers be? We asked four colleagues to share their experiences.

Maksim Baranov (29), PhD candidate Tumor Immunology Department, **RIMLS** 

# "COMPARED TO RUSSIA OR THE USA, THE NETHERLANDS IS THE BEST OPTION"



One of the things I like the most about the Netherlands is the lack of hierarchy. People in management positions do not display "bossy" behavior. Every employee's opinion matters and can be freely expressed. Also, Dutch society offers solid healthcare and a pension plan for everybody. The high level of organization and the intrinsic

responsibility of the Dutch make it very easy to plan experiments ahead and cooperate with others. To me, the Dutch research labs are very productive and highly competitive.

When I moved here from Russia almost five years ago it took me very little time to adapt and make friends. My tip for newcomers is to bear in mind that the Dutch are not spontaneous and like to plan things well in advance!

Stefaan Bergé (52), professor and head of the department of Oral and Maxillofacial Surgery

# "I SEE MYSELF AS A EUROPEAN, ENJOYING THE BEST OF ALL WORLDS"



I'm a Belgian by birth, but live in Germany and work in the Netherlands, so I would describe myself as a European. I enjoy working here because Dutch universities are so professional and innovative and I live in Germany because it is such a relaxing place. I have the best of all worlds! Nijmegen has a truly international work environment but some people still stick to

old clichés about nationalities. I know very generous Dutch people, hard-working Belgians and have had lots of laughs with German neighbors. But I've given up trying to change people's minds. A word of advice to Flemish people moving to the Netherlands: never lose your accent! It's your secret weapon - Dutch people love it!

# Vesla Kullaya (29), Biomedical Scientist

# "THE NETHERLANDS IS A LAND OF **OPPORTUNITIES**"



Compared to Tanzania, the Netherlands has a much higher economic status and standard of life. People respect their work and are very punctual, which I admire. Most people at work are much more cooperative, motivated and ambitious than I was used to.

It's also handy that people speak, or at least understand, English. However, there is not much social interaction. It is difficult to make friends outside work and due to huge cultural differences - the food, the music, dancing, et cetera -I find social events in the Netherlands too formal. And it's shocking to see how misinformed people are about Africa! My advice is work hard to meet your goals as there are many opportunities to seize. Do not expect much of a social life, though, but positive thinking will help you get by.

Intan M. Dewi (31), PhD candidate, Infectious disease and global health

# "I AM LEARNING TO SPEAK MY MIND"



I find the Netherlands a really easy place to adapt to. The work ethic is very high and people are very efficient. The main difference with Indonesia lies in communication: Dutch people are really straightforward. They say what they think, which is a good thing. I come from an Indonesian/Javanese background,

and am not used to expressing myself so directly. But thanks to working here, I am now developing those skills.

Dutch people often have well-organized diaries, full of appointments for the coming months. There is little room for a spontaneous dinner, for instance. That's different to Indonesia, too. I would advise newcomers with a family to make arrangements for school and daycare beforehand. That will make the move much less stressful!



## MEET THE COLLEAGUES

People from all over the world work or train at Radboud university medical center. Introducing a small and random selection of those many international colleagues.





Since I arrived here from Spain in 2008, I have been investigating new machine learning algorithms for the computer-aided interpretation of medical images. These can be applied for the early detection of diseases, the efficient analysis of patient data and the realization of personalized healthcare.

Clarisa Sánchez Gutiérrez, Associate Professor on Advanced Machine learning for medical imaging (Radiology Department), 38, Spain.





In August 2015 I started working at Radboud university medical center. Using my expertise on neuronal synapses and microscopy techniques, I want to better understand the immunological synapse between dendritic cells and cytotoxic T-cells. Natalia Revelo, Nuncira, Postdoc, 31, Colombia





I'm a PhD student from China, doing my first-year project here. I am trying to answer the question: does depression cause drug addiction or does drug addiction cause depression? Animal trials are helping us to shed light on this. Chao Guo, PhD Candidate, 27, China



Esther Sánchez, Mexico

I have worked in the Orthopedics department for 18 months. First, I was workiner's at Eindhoven University and went on to work here at Radboud university medical center. Esther Sánchez, PhD candidate, 31. Mexico



# Arthur S, Brazil 쭏

I'm doing a postdoc at Radboud university medical center/Donders Institute under the supervision of Mike X. Cohen at the Synchronization in Neural Systems laboratory. I have been in Nijmegen for four months and I will stay until 2020. Arthur S. C. Franca, 30, Brazil





I am a fourth-year PhD student and I develop personalized computer models to study the forces in the musculoskeletal system. My ultimate goal is to design patient-specific pre-planning tools to be used in clinical practice. Marco Marra, PhD student at the Orthopedic Research Lab, 28, Italy



# Joshua Adeoye, Nigeria

I completed a PhD on sustainable oral health improvement in Nigeria and now I'm tackling research questions relevant to health economics and policy. I love traveling and meeting new people, and have been in Nijmegen for five weeks.J oshua Adeoye, Researcher, 33, Nigeria



# **Every field of expertise is just a** short walk away

My first day at Radboud university medical center was three-and-a-half years ago. I was born in Italy and did my Bachelor in Biology in Milan before moving to Germany for my Master and PhD. Before I came here. I had been working as a Post Doc at a center for Regenerative Medicine in Barcelona. So I am used to adapting to new circumstances. Here in Nijmegen I was surprised by the size of the complex and all the different disciplines that it housed. That really made an impression on my first day. I soon learned how convenient it is for working together with colleagues in other fields of expertise. Everyone is close by, just a short walk away. That really encourages translational research.

## Vibrant multicultural environment

The second thing that immediately struck me was how international the working environment is. I have colleagues here from all over the world and everyone speaks English with each other. I must admit: over

speaks English.'

# Radbode

HOW WAS YOUR FIRST DAY IN NIIMEGEN? THIS ISSUE: SILVIA ALBERT, POST DOC, SENSORY DISORDERS

the past three-and-half-years, I have never felt the need to learn Dutch. Not even for social purposes, as Nijmegen has a very diverse and young population and everyone

'I got used to the working culture very quickly. Everything is well organized and structured, whereas in Spain things can get a little chaotic now and then. I welcomed the clear rules and felt that they helped me settle in. In Spain, there are limited work opportunities for young people in general

and sadly, researchers are no exception. Here I feel that there are so many opportunities to develop my skills and my career. I would really like to remain here and keep on doing what I do for as long as I can. The only thing that I might change, if I had the opportunity, would be the weather. Having lived in Barcelona, I really miss the sun!

💋 Karen Jochems 🔯 iStock

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**FOOD FOR THOUGHT** 

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# Every year **Mieke Daalderop**, project coordinator International Health, invites exchange students to a welcome dinner at her home.

The welcome dinner is something of a tradition in the International Health department. It started some 15 years ago and I have been hosting the event for the past six years. It's organized for the eight international students from Tanzania, Indonesia and Nicaragua who come to Nijmegen for a two-month period every March. They generally attend with their Dutch "buddies". Staff members and people from the International Office also join in.

At first I tried serving traditional Dutch food, like stamppot (potatoes mashed with vegetables – ed.), but that wasn't a huge success. So now we have a more international menu, with rice and chicken, for instance. A catering company takes care of the main course and we make the dessert and provide the beverages.

After dinner we enjoy a quiz that the International Office prepares on living in Holland and Dutch habits. That's always a good laugh! Most of the students really enjoy the evening. For most of them, it is their first trip abroad so it's nice for them to be able to relax in a homely environment. I make all the arrangements for their stay so some of them probably see me as a surrogate mother! A lot of the students stay in touch after they've returned home. Some come back to Nijmegen later on. One of the Indonesian students who came in 2007 recently completed her PhD here. It's nice to know that Nijmegen retains a special place in their hearts.