



Universität
Münster

**Twelve months,
twelve people
Portraits 2023**

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Foreword

Dear Reader,

Our University has an enormous amount to offer: a considerable range of subjects to study, for example, excellently equipped laboratories, seminar rooms and lecture halls, numerous international cooperations, and a lively campus life. But these facts which shape our University only become really perceptible and tangible through all the people who literally give it a face: more than 43,000 students and around 8,000 staff. It is they who, through their work, their dedication and their personality, not only give the University its unmistakable profile but also, each in his or her own individual way, contribute to the good reputation which Münster University enjoys.

In this publication we wish to do justice to the diversity which exists at the University of Münster and present some of the outstanding people from the past year – in twelve portraits, one for each of the twelve months of 2023. With their expertise, their role at our University and their successes, the people depicted in these portraits represent the ideas of research, teaching and transfer which mark our University as a whole, and from which we all benefit: the mathematician for example with her outstanding expertise in arithmetical geometry; the physicist who was involved in the groundbreaking discovery of oscillating gravitational waves; or the student who successfully balances her studies with competitive sport.

“Curiosity is the precondition for knowledge,” as the famous oceanographer and film-maker Jacques-Yves Cousteau once said. I hope very much that these encounters with just a few of the many outstanding members of our University will kindle your interest and your curiosity regarding research, studies and teaching. I wish you much enjoyment in reading about these twelve people from our midst.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Wessels'. The signature is fluid and cursive.

Prof. Johannes Wessels
Rector of the University of Münster

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Rainhild Schäfers passes on to her students a special combination of around 20 years' experience as a midwife and 20 years of research.

“I only ever felt the stress afterwards”

As a young woman, Prof. Rainhild Schäfers trained as a midwife. After more than 20 years in the profession, she decided to study Nursing Science. Since 2023 she has been the first Professor of Midwifery at the University of Münster. *Hanna Dieckmann*

Do you feel that making midwifery an academic subject is a milestone? Making it a subject you can study is a late step – but for the profession of midwife it is an important one that goes in the right direction. At Münster we're incorporated into the Medical Faculty, which is a great advantage because both sides can benefit from synergies.

What message is important in your view? In our profession, the most important thing is the woman's health – the baby is a sweet little extra! It is regrettable when the success of a birth is only measured by a little pink newborn baby, and the woman is forgotten. I have an allergic reaction to that.

Why's that? Because after the birth many mothers suffer with physical complaints and mental or emotional issues. The statement that “mother and child are doing fine” falls short, in my view.

You used to work in hospitals and, on a freelance basis, with families. What attracted you then to university? What I didn't like in my practical work was that I often had to say, “I have a feeling that ...” I wanted to say with certainty, “I know.” So, for that reason, studying was the logical consequence.

Today, studying midwifery at university is a legal requirement, but you did it on your own initiative. Were you conscious of the necessity at that time?

Through studying, I understood how important it is to broaden your horizons. Working academically opened up a new world for me: I was able to read studies, do research in databases and make comparisons by looking at how things are done in other countries.

You talk passionately about your profession. Did you always want to be a midwife? No. When I was 16, my mother said, “Being a midwife would probably suit you.” When she said that, she set me on a certain path. Otherwise, I would probably have become a carpenter.

Not exactly similar jobs ... Not at first sight. But in both jobs you see something grow which, in the end, you bring into the world, so to speak.

When you look back, do you miss the practical side of being a midwife? Yes and no. I miss working with the women. This relationship of trust which, in the best cases, means that I empower the woman to take over responsibility herself – that's a very rewarding feeling. Because from my point of view a birth is going well when I have the feeling that I'm just in the way.

And what do you not miss? Being at the mercy of outside forces. As a freelance midwife I was on call 24/7. I had to plan everything around that: eating when I wasn't hungry, not moving away too far from the house, thinking carefully about whether I could have a beer in the evening. There were too many

people intervening in my life. At any time I could be torn away from any situation, no matter how private. My standard answer whenever my children asked if I had time for something was, “If I don't have a birth then ...” I had the feeling that I was upsetting a lot of people with my work patterns.

So you've never regretted taking the academic path? On the contrary: today I'm in the privileged position of being able to look back on 21 years as a midwife and almost 20 years of experience in research. Being able to pass on this combination to students today is a great gift. It's very rewarding to watch young women growing into the career of a midwife or a researcher.

How do you make use of your experience? Our work is often idealised. It's important for students to get a clear idea of what awaits them. We often hear that there is no job in which you experience so many tears of joy. That may be true, but it can also become too much. Our job is very emotional, and it sometimes leaves us thinking that we're indispensable. In the worst case, this immense pressure can lead to a burn-out.

Were you ever in such a situation? I was often close to it. But I only ever felt the stress afterwards. Recently, on the train, a mobile rang with the ringtone that I used to have while I was on call. It immediately gave me a start. It's still deep inside me after all this time.

Getting ideas out of the drawer!

At no German university has support for start-ups improved as much as at Münster. This is one finding that emerges from the so-called “Gründungsradar” (“start-ups radar”) published in February by the Stifterverband (a joint initiative set up by companies and foundations). **Christin Menke works at REACH, which supports and advises start-ups from their initial idea onwards.** *Brigitte Heeke*

Anyone thinking of getting a start-up going can't contact us early enough,” says Christin Menke. But people who already have a complete business plan in their pocket will also find a welcome waiting for them in the former bank building on Geiststraße – in the University of Münster's “REACH – EUREGIO Start-Up Center”. Christin Menke, 33, has been a member of the coaching team at REACH since 2020 and she provides advice for would-be entrepreneurs, from students to professors. It is a career which she never once dreamt of while studying sport in Bielefeld and Cologne. “There were 20 people in my master's degree course, which actually produced two start-ups,” she says, “but I didn't think about the subject at all. It really was chance that led me to it.”

Christin Menke's first job was in the development department of a Bavarian bicycle manufacturer. She later changed jobs and joined a service provider that dealt with approvals for products in the field of pharmaceutical and medical technology. When her boss there asked her if she would like to join his start-up, she said yes. “There were four of us, and we were naïve,” she says, looking back. “When one of our first customers expressed an interest and asked us to send a contract, I didn't have a clue what they meant and had to find out first which contract they were talking about. At any rate, we didn't yet have any contract at that point.” The document in question was a standard one in the industry, and they quickly cobbled one together. “Anyway, things had to be done that we hadn't previously had anything to do with. At that time, we could certainly have done with support such as REACH offers,” she says. “Ultimately, it didn't work out. But I learnt a lot in those two years – especially from our mistakes.”

Christin Menke now passes on her experience to others. For example, in the first start-up which she herself mentored: a company called “Truion” – which at that time was still called “CatSper” – developed a test which recognises when men cannot produce children naturally. “Couples who want to have children

are saved a lot of disappointment with such a test,” is Menke's conviction. Several years of experience had already gone into the idea when the founders took it to REACH. It's exciting to help a start-up as it gets going, Menke says. “Now, the product has been on sale for about half a year, and clinics can carry out the test in any standard laboratory.”

Sometimes ideas turn up at REACH which surprise even a coach. The “Ambient Sphere” start-up, for example, develops background music for so-called “pen and paper” role-plays. “I had no idea before that there was a market for something like that,” says Christin Menke. “But there is actually a large community behind it.” At REACH, she sits at a desk in the spacious entrance area, which is equipped with flexible chairs, tables and whiteboards. “It's brilliant that everyone meets here in this space, because more ideas are generated in discussions than when people work alone,” she says. One of the ideas produced just recently is also clearly visible here: on the tables there are colourful vases made from recycled plastic.

Since 2019, 80 start-ups have already been engendered by REACH, which collaborates with the University of Twente in Enschede (Netherlands) as well as with Münster University of Applied Sciences. The coaching team is currently providing support for 159 more start-up projects. REACH needs patience and perseverance to raise awareness in all the University's faculties of the idea of start-ups, says Menke. “At the beginning we were still benefiting from the previous structures,” she says. “Successful start-ups such as Pixel Photonics and E-Lyte had already been given support by the Innovation Office and had got off the ground in this way. The colleagues' knowledge and their experience are really helpful now.” Christin Menke is enthusiastic about the products which “her” start-ups come up with, but her motivation comes above all from a conviction that good ideas – which the University is full of – should not be put away and left in a drawer. She also recommends students to consider a start-up as a possible career option. “It doesn't mean you directly have to become the next Elon Musk.”



Listening and developing ideas: Christin Menke from the REACH coaching team advises start-ups in all their phases.

Research without limits

Prof. Frank Glorius is passionate about chemistry. His team at the Institute of Organic Chemistry consists of highly motivated young scientists from a variety of countries. In March he received a coveted ERC Advanced Grant.

Dr. Christina Hoppenbrock

There are evidently many young people who would like to be part of the “Glorius Group”. Very many, in fact. Chemistry Professor Frank Glorius receives enquiries almost on a daily basis. As a result, he has to reject requests from numerous applicants all over the world – far more than 1,000 times every year.

The young people who make it into his group are outstandingly good and highly motivated, and they have the complete confidence of their mentor. The only thing he demands of everyone, says the 51-year-old Glorius, is that they all work well together within his team. “Be interested in the other team members’ experiments, swap ideas with one another,” he tells them. 69 students have so far completed their doctoral degrees in the Glorius Group. Adding together all the former and current team members, Frank Glorius arrives at a total of 170 people he has supervised in the past or is still supervising now. The various generations of junior researchers past and present all come together at the Group’s annual summer festival held in Münster.

Frank Glorius, who likes to cycle that extra lap on his way to work in the morning, describes himself as a “hardcore researcher”. He loves science; he often replies to emails at night. The list of his awards is long, and the list of his scientific publications is even longer. The Glorius Group is famous worldwide for its research in current fields of chemistry; in many of its projects, the Group collaborates with partners from other disciplines. Its research focuses include organic photocatalysis, the development of sustainably producible functional molecules, and surface chemistry. A new hobby is the chemistry of data science. “I want us to be world-class in every single one of these fields,” Glorius says. His 2023 ERC Advanced Grant is the third ERC grant he has received, and with this latest funding he wants to develop new methods of energy transfer photocatalysis and produce molecular structures which can be used in the manufacture of medicines, for example.

When Frank Glorius – who is also currently Dean of the Faculty of Chemistry and Pharmacy – is asked about a typical situation in his everyday working life, he describes the following scene: “I’m sitting at my desk. And then someone from my team puts

their head around the office door and I call out, ‘Come in.’” Working with other people is something he is particularly fond of – whether it’s a discussion with another professor, for example, or with high-ranking representatives from the chemicals industry.

Frank Glorius got into chemistry in a “classic” way, he says – via a chemistry set as a child. At that time he and his family lived in Walsrode, in the Lüneburg Heath area of northern Germany. After studying chemistry at the Universities of Hanover and Stanford and doing research for his PhD at the Max Planck Institute (MPI) of Coal Research in Mülheim an der Ruhr, he then completed his doctoral thesis at the University of Basel in Switzerland. Further stages in his career were: a post-doctorate at Harvard University in Cambridge (USA), heading a group of junior researchers at the MPI in Mülheim, an appointment as professor at the University of Marburg, and finally the move to Münster in 2007.

Chemistry is also a part of his life at home – for example through his twin daughters, one of whom is studying chemistry, the other biochemistry. His wife is a chemist with a leading position in industrial research, and their son has developed an interest in the subject at school. When he wants to take his mind off chemistry, he likes reading news magazines or having guests at home. But what he likes most is watching television – especially series. “Take for example the programme ‘Die Höhle der Löwen’ (‘Dragons’ Den’), in which young entrepreneurs look for venture capitalists: it’s something the whole family can watch, talk about and in passing learn something from about the business world,” he says.

The chemistry experiments which fascinated him as a child are something he still loves – even if he no longer stands in a laboratory today. However: no matter how wonderful the experiments are, he says, it’s always important that researchers never forget the issue of safety in their everyday work. While he was working on his PhD he accidentally triggered an explosion in the lab – and for this reason alone he takes the issue especially seriously. At the time, no one was hurt, fortunately, and today Glorius can laugh and reveal the nickname which his fellow-PhD students gave him: “At the Institute they called me ‘Firecracker’ for a while.”

Frank Glorius attaches importance to his team members working well together and regularly swapping ideas.

On the journey to an unknown country

Prof. Christos Gatsogiannis from the Institute of Medical Physics and Biophysics is responsible for cryo-electron microscopy at the University of Münster. April saw the inauguration in his working group of a piece of very high-performance equipment. *Dr. Christina Hoppenbrock*

As Christos Gatsogiannis is packing his bags in his hometown of Karditsa, in Greece, before setting off to study in Germany – instead of Athens, like his friends – he is 18 years old. He has long wondered about whether it is the right decision – but everything falls into place very quickly: in Germany, his doubts are dispelled as soon as he has embarked on his language course at the Goethe Institute in Frankfurt.

While studying biology in Mainz, Gatsogiannis' enthusiasm is kindled for the molecular mechanisms which take place in every cell and enable life to exist, as well as for the structures of the proteins which are decisive in their functioning. At this time, in the early years of the century, X-ray crystallography is the method of choice for analysing protein structures. However, it is by no means possible to examine every protein, and clarifying a single structure often takes years to complete. During his studies, Christos Gatsogiannis, who today has been undertaking teaching and research at the University of Münster since 2020, discovers a different technique which he can use: cryo-electron microscopy (cryoEM), in which biological samples are cooled down to extremely low temperatures. "At that time, though, there was no question of any high-resolution analysis of protein structures," he says today.

Much has been happening for Gatsogiannis since he was a student. In 2022 his working group at the Center for Soft Nanoscience (SoN) sets up a brand-new, top-class cryo-electron microscope, and in April 2023 numerous distinguished guests take up his invitation to attend the official inauguration ceremony – the highlight to date of his professional dreams. The new equipment is capable of a resolution of around one ten-millionth of a millimetre, which corresponds to the magnitude of atomic radiuses, and it makes possible not only the structural determination of proteins and other biomolecules but also even high-resolution views directly into a cell.

But first things first: Christos Gatsogiannis makes cryo-EM – still in its infancy – the subject of his doctoral thesis, and he develops every image individually in the

darkroom. In 2009 he is awarded the top grade of summa cum laude for his thesis and he decides to stay in Germany to do a post-doctorate. His next move is to the Max Planck Institute (MPI) for Molecular Physiology in Dortmund, where there is a focus on cryoEM. After completing his post-doctorate, he is made a group leader in the Structural Biochemistry Department.

While Gatsogiannis is carrying out his research in Dortmund, microscopy technology takes a quantum leap forward: cryoEM becomes capable of atomic resolution and, at the same time, a revolution takes place in the field of computer software. The three researchers who initiated and made possible the development of cryoEM receive the Nobel Prize for Chemistry in 2017.

Around the same time, the University of Münster gets a new research building, the SoN. On the ground floor of the building, below an earth-wall, is a special laboratory room with a concrete floor plate which is air-suspended on columns and is virtually vibration-free. The room was built especially to house a cryo-electron microscope.

When Christos Gatsogiannis gives up his job at the MPI in Dortmund to accept a professorship at the University of Münster, the laboratory at SoN is still empty. Under his direction, an application for large equipment is submitted, with other working groups from the fields of medicine, biology and chemistry also being involved. In 2022, there is a success to report: the German Research Foundation approves funding of 7.5 million euros for high-performance cryo-electron microscopy equipment – which is delivered and inaugurated just a few months later. Nowadays, a large number of working groups from Münster University use the microscope, which is capable of performances second to none in Germany. Christos Gatsogiannis has now once again packed up his belongings and moved from Dortmund to the Münsterland with his wife and his daughter. He still dreams of looking inside cells. "When we look through the new microscope, we don't know what awaits us. It's like a journey to an unknown country."

Christos Gatsogiannis aims to visualise the minutest structures and processes inside cells.



Moderator and broker

For a good four years, the University and the public debated the issue of the man who gave the University its name: Kaiser Wilhelm II. On 3 May, the name “WWU” became history. Senate Chair Prof. Hinnerk Wißmann was involved in this process from the first day to the last. *Norbert Robers*

It can be assumed that Prof. Wißmann was still conscious of having just been elected as the new Chair of the University of Münster Senate when, in the early afternoon of 17 October 2018, he put a student motion to the vote just a few minutes later. Perhaps he already suspected at the time that the Senate’s approval of this motion would not only have a significant impact on his work for the body in the coming years, but that it would also have far-reaching consequences. The students had argued that the University should develop “an historically critical approach” to the person who had lent it its name, Kaiser Wilhelm II. Four and a half years later, on 5 April 2023 to be precise, the Senate, with Hinnerk Wißmann at its head, voted by a majority to rename the Westfälische Wilhelms-Universität Münster (WWU) the “University of Münster”. With the approval of the North Rhine-Westphalian Ministry of Education and Science, given on 3 May 2023, the name conferred in 1907 became history.

“Kaiserlos” (“Kaiser-less”), commented the region’s radio station WDR at the time. It was a break with the past that attracted great interest nationwide. As a legal scholar, Hinnerk Wißmann was thus directly involved in this consequential decision-making process for the University from the first day to the last. “It was the right path to take,” he emphasises, “because it was a debate whose outcome was uncertain and because we didn’t make it easy for ourselves. The calm reaction on all sides following our decision reflects this.”

The decision was, of course, still open when the working group initially set up under the leadership of historian Prof. Olaf Blaschke presented its final report in February 2020. But there was one half-sentence in this report that suggested even then that it would be difficult to retain Wilhelm’s name. There was no doubt, said the working group, summarising the current state of research, “that Wilhelm II was highly militaristic and quite obsessively antisemitic”. From then on, a project team organised discussions, an exhibition and much else besides under the title “The Question of WWU”. Anyone could publish comments on a project page on the Internet, and a scientific advisory board discussed all the pros

and cons and all conceivable variants. “There really was a palpable feeling – both historically and with a view to the future – that we were best reflected in the simple name ‘University of Münster’, which at the same time is also our founding name,” says Hinnerk Wißmann, summarising the deliberations. “‘Universitas’ denotes the entire range of the sciences and humanities, as a place of internationality and exchange: this idea unites us all.”

It was by no means this process in the Senate alone that impressed Hinnerk Wißmann, an administrative and constitutional lawyer who has held a chair in public law at the University of Münster since 2013. As Chair of the Senate, he says that he finds it both challenging and stimulating to moderate the diversity of status groups and disciplinary cultures – with respect and with an open mind. “I want to be an honest broker in the process. I want to offer decisions and bring together what can be supported by as many people as possible. From this perspective, the renaming process was a great example of how the Senate ideally works,” says Wißmann, a native of Hanover.

And he follows this up with a remarkable sentence: “I love the Senate – because it is in this forum that our University comes into its own.” Wißmann, 52, has studied and worked at a total of nine universities and is in regular contact with the chairs of other Senates. Nowhere else has he experienced such a high level of appreciation between the Rectorate, the Board of Governors and the Senate as well as a willingness to, in his words, “trust each other”. This gives the University of Münster a “clear locational advantage,” he says.

As Chair of the Senate, Hinnerk Wißmann has to be constantly available; he sets aside around one working day a week for this body. His duties at the Faculty of Law and in the national and international academic community have not become fewer as a result. He says he may grant himself an extra semester for research in due course. “At some point,” he says, and smiles. He can wait. After all, the Senate has grown very close to his heart ...

Hinnerk Wißmann too regularly reads the University newspaper “wissen/leben” – with its header now containing “University of Münster” after the renaming.

In search of the frontiers of knowledge

As a child, particle physicist Prof. Kai Schmitz spent many hours in an observatory: he was fascinated by the universe. On 29 June, he experienced a moving moment in his career with the announcement of the discovery of slowly oscillating gravitational waves. *Norbert Robers*

After school, there was often no stopping the young Kai: after lunch and the tiresome homework that had to be done, the 14-year-old boy usually had only one destination – the Wilhelm Foerster Observatory in the Steglitz district of Berlin. A few years earlier, his grandparents had sparked in him an unbridled enthusiasm for planets, stars and the universe with the gift of a book from the “Was ist was” series of science books for children. For hours – and usually well into the night – Kai watched waxing moons, bright fixed stars, Venus and the sun. But one evening disaster struck. He had come home much later than his parents had stipulated – with dramatic consequences for the boy: from then on, he had to be home by 10.30 pm. But the despairing Kai Schmitz was clever and knew how to help himself in his own personal emergency: he started up a petition on his own behalf. As many as eleven friends and acquaintances wrote in favour of the young stargazer “being allowed in future to stay at the observatory later than half past ten”. And lo and behold, Kai’s parents quickly relented in response to this impressive petition ...

Today, some 23 years later, Prof. Kai Schmitz, is looking out over Lake Aa in Münster, and his eyes light up as he recounts how eagerly he was awaiting the 29th of June, 2023. On that Thursday, as a member of the global “NANOGrav” consortium of physicists, he announced that after 15 years of intensive measurements, convincing evidence had been found for the first time for the existence of slowly oscillating gravitational waves. A scientific coup, a globally acclaimed breakthrough and, at the same time, a moving moment for Kai Schmitz – in the truest sense of the word. “I was very nervous, and all I could think about was that day and our results,” he says. Where does his passion for his subject come from? In order to understand what holds the world together at its inmost folds, as it says in Goethe’s “Faust”? “Children,” he explains, “often ask the question ‘why’ – over and over again – and we physicists take these questions very seriously because, unlike many exasperated parents, we don’t in the end refuse to

answer our children’s questions. On the contrary, we want to constantly push the boundaries of our knowledge – and that’s exactly what we’ve managed to do with the discovery of low-frequency gravitational waves.”

Even at a young age, for Kai Schmitz “everything pointed to physics”, although he was also very fond of literature and, by getting the top grade in his Abitur exam, he proved that he had plenty of talent. After six semesters of physics at the FU Berlin, he went travelling: to the USA, Hamburg, Tokyo, Heidelberg, Padua and Geneva. Since May 2022, particle physicist Schmitz – who, in the little free time he has, enjoys exploring the Münsterland region with his family by bike from his home in Gievenbeck – has been teaching and researching at the University of Münster.

Gravitational waves will continue to dominate his work for many years to come. It is known that they care little about obstacles in time and space and rush through everything. But nobody yet knows for sure where they come from. Kai Schmitz and his team are examining the option of whether they are the result of an event which took place around 13.8 billion years ago, when extremely hot plasma drifted apart when the Big Bang – and, with it, the beginning of everything – occurred. The experts are using radio telescopes to observe 68 so-called pulsars – dead stars that rotate rapidly and emit beams at very regular intervals. They function like reliable clocks whose possible timing deviations enable gravitational waves to be measured. “Pulsars, of which we hope to find more, are like lighthouses in space, or light buoys at sea. In any case, they are a gift from the heavens,” says Kai Schmitz.

He prudently keeps expectations in check – although he does seem to have a talent for forecasting. At primary school, he once had to sign an assignment sheet – and he signed it “Prof. Kai”.

On Lake Aa, Kai Schmitz makes a wave which spreads out in a similar way to the gravitational waves in our universe.



Finding the right dosage

In the FISU World University Games held in July, pharmacy student **Julia Tertünte** won a bronze medal in the “Lightweight Single Scull” competition – a great success, and one which demanded a high level of discipline, ambition and motivation for the rower to balance competitive sport with her studies. *Dr. Kathrin Kottke*

Julia Tertünte had a long journey in front of her when she set off for the Chinese city of Chengdu in July – a good 8,000 kilometres away from Münster’s Prinzpalmarkt – which, with a population of 20 million, was the venue for the 2023 FISU World University Games. It was with a heavy heart that she had to leave her boat “Lightning McQueen” at home. However, the boat which she was provided with, and in which she lined up in the “Lightweight Single Scull” event, competing against top-level international athletes, brought her success: with a time of 7:50.42 over 2,000 metres, she secured third place and proudly brought a bronze medal back to Münster.

In 2017, after having engaged in top-level athletics for some years, Julia Tertünte looked around for a new sporting challenge. Numerous injuries were the reason why she wanted to try out something new. Within just a few years, she developed a healthy portion of ambition and a great passion for rowing – which demands a lot of her. After all, in addition to her chosen sport – which consists of many hours spent on training and includes time-consuming competitions – Tertünte, who was born in Essen, is studying Pharmacy at the University of Münster. In the truest sense of the word, she has to find the right dosage for each in order to do them both justice. “There were times when it was more than challenging to balance studies with sport,” she says. “This year I did my year of practical training in a pharmacy, which for me meant a 40-hour week, preparation for exams and intensive training for rowing competitions. I did occasionally have my doubts as to whether I would be able to manage it all.”

However, her success dispelled any doubts. Besides the third place in Chengdu, she took part in many more regattas and also completed her year of practical training. “My motto is ‘Don’t give up!’” she says. “That means that if a competition doesn’t go as well as I hoped, or I have to sit an exam again, I never lose sight of my aims.” Hers is an exceptional talent and she draws the strength that she needs both at university and on the water from her perseverance and from her ability to motivate herself. “Studying pharmacy means you have to learn a lot, and it involves a great deal of work over several years,” she says. “And it’s no different in rowing – especially if you want to be among the best.” Her rowing club gives her energy, because her trainer and her friends have a lot of understanding for her situation. The club is like a second family for her, she says. In nearly every free minute she has – mostly in the evenings and at the weekends – she can be found in the largest rowing club in the Münsterland, in Bennostraße, or on the Dortmund-Ems Canal. You can observe her from the side of the canal as she rhythmically dips the oars of her 14-kilogram boat into the water. However, you can easily lose sight of her if you don’t cycle fast alongside to keep up with her.

“Every time I go back on dry land, I’m happy and contented – even if I know my muscles will be aching next day when I have to go to work or sit in a lecture hall,” she says with a grin. She remains relaxed when she looks to the coming rowing season. “I’m looking forward to new competitions and I hope that I’ll be rowing up there with the best again. And I’m looking forward just as much to starting work in my chosen profession – and I very much hope that I’ll also be able to manage a balance there, too.”

A proud Julia Tertünte wearing her bronze medal and carrying her textbooks in her “home port”, the Münster Rowing Club.

Scientist with a sense of humour

The University's Geomuseum has been open since August. The museum's director, Prof. Harald Strauß, is over the moon about the exhibits and the high numbers of visitors – in the first four months, over 25,000 guests came to look at the exhibition. *Brigitte Heeke*

If time machines existed," says Harald Strauß, "I'd jump in straight away to take a look at a living mammoth." Still, one thing that Strauß, who is Professor of Historical and Regional Geology, has been granted, is that from one of his workplaces at the University of Münster, he can regularly see a fossil of one: the Ahlen mammoth. Visible from afar, in the enormous window of the Geomuseum, the animal is also used as an emblem for the museum's logo and brochures.

For 16 long years, the Geomuseum was a building site – before the Rectorate and Harald Strauß were able to welcome guests to the opening ceremony on August 10. "Sometimes friends asked me whether all the fun had gone out of it for me," the museum director says. But the opposite was the case: my enthusiasm actually grew over time." The Earth's History Room was one of the first rooms to be completed. "And it's turned out much better than I had imagined. Up to then, we only knew the plans." He felt the same way, he says, when the 43,000-year-old newly restored mammoth was put in place 18 months ago.

His enthusiasm for his subject began at an early age. While he was still at school, Strauß, who grew up in Bad Sachsa in the Harz region, knew that he wanted to study geology at the nearby University of Clausthal-Zellerfeld. "In 1983 I was asked if I could imagine doing a PhD at Göttingen University." As a post-doc, he undertook research work for three years in the United States – in Bloomington (Indiana) and at the University of California in Los Angeles. "There were 55 researchers from ten countries there, representing a variety of disciplines. It was a great time." His wife and his newborn son accompanied him. "Because phoning was very expensive, we kept in touch with Germany in an unusual way: once a month we recorded messages on cassettes and posted them to our parents." In 1988 he got an offer to build up the isotope laboratory at the University of Bochum, and the young family returned to Germany. Since 1999, Strauß – today the father of two grown-up children – has been teaching and researching in Münster.

"Isotopic measurements enable extremely old metabolic pathways to be determined," Strauß explains. "It's astonishing how many topics these measurements allow us to work on. We have already used them to analyse all sorts of things – rocks, of course, but also cows' hairs, Greek statues or birds' feathers. In a search for comparative samples of processes which took place in the early history of the Earth, he put to sea for the first time in 2005 in a research ship, the "Meteor". Since then, Harald Strauß has undertaken several expeditions, gaining a reputation as a hard-working man of modest needs – and one with a sense of humour. Last summer for example, he recounts, a new crew member on the ship welcomed him with the words, "Ah, you're the one who only needs four hours' sleep."

Strauß, 63, regularly passes on his passion for his subject at the Children's University. It is a matter of regret for him that students taking the Abitur at school can find Maths, German or History on the curriculum – but not Geology. "This despite the fact that the challenges our society currently faces include many geo-issues such as climate change or the scarcity of resources," he points out. This is one reason why teaching, in its various formats, is something he cares about. His work for the Geomuseum is not difficult, although it's tantamount to an extra full-time job on top of his research and teaching.

It was twelve years ago that he took over as director of the museum – which is primarily a scientific collection. 2,300 exhibits, all originals, were selected for the permanent exhibition, in which the "tundra area" is the only one which has traditional 'Please do not touch' signs. "If at all possible," says Strauß, "we don't want to put up a Perspex screen between the mammoth and visitors, and so far it's worked out really well." At this spot, he adds, it's often interesting for the museum's attendants to watch guests trying to get themselves and the three-metre-tall mammoth onto a selfie ...



Harald Strauß in front of the newly opened Geomuseum with its main attraction, the woolly mammoth. Found in a clay pit in 1910, it looks out onto Domplatz through a large window.

“This chance discovery was a real stroke of luck for me”

With her doctoral thesis on the history of international law in the conquest of the Canary Islands, **Julia Bühner** explored uncharted academic territory. In September she received from the city of Münster a special commendation in the category of the city’s Young Historians Prize. *Anke Poppen*

Gran Canaria, Tenerife, Fuerteventura: most people, when they hear these names, think of holidays on the beach. But historian Julia Bühner doesn’t. For her doctoral thesis she undertook research in archives and libraries on the Canary Islands – with little opportunity for sunbathing and swimming. On the contrary: “The University of Tenerife is located in La Laguna, in a valley surrounded by laurel forests. The weather there was more like in Münster,” she says. The reason for her stays there was her research on the history of international law in the conquest of the Canary Islands by the Crown of Castile in the years from 1402 to 1496. For her thesis she received from the city of Münster a special commendation in the category of the city’s Young Historians Prize. The jury praised the cross-disciplinary approach taken in the thesis, as a result of which she “boldly explored uncharted academic territory”.

As she grew up in Werl, a town roughly 70 kilometres south of Münster, choosing to go to Münster University made sense for Julia Bühner. Her passion for the history of the Middle Ages was soon kindled. “Like most students,” she says, “I had hardly any previous knowledge of the Middle Ages from school lessons – and I was surprised by the rich diversity of this era. Münster happens to be so full of medieval history. This chance discovery was a real stroke of luck for me,” she recalls. A course on international law in the Middle Ages in her master’s programme, as well as her fondness for the Spanish language, ultimately led her to her doctoral thesis.

In her thesis, Bühner relativises the popular notion that international law is a purely European achievement. “Among other things,” she explains, “the Peace of Westphalia is seen as a milestone in the history of international law, laying the foundations for the modern system of nation states. But this view of things is very Eurocentric. What interests me,” she continues, “is whether in other cultures – indigenous ones, for example – there is anything similar to what we nowadays understand by international law and international relations.

Europeans are not the sole players involved,” is her conclusion. “We should understand conquest more as a meeting of cultures, in which differing ideas of normativity and law confront each other.” In doing so, she says, it’s not a question of denying the violent act of conquest, but of developing an awareness that indigenous people too made contributions to the achievements of the modern world.

Julia Bühner worked with sources written in medieval Spanish, medieval French and Latin – for example, papal bulls, royal edicts and scholarly tracts. The pre-modern forms of language were a challenge in themselves – so her delight at the award from the city of Münster was all the greater. The laudation from Prof. Wilfried Reininghaus impressed her in particular. “That was my first laudation, and it was a special moment to hear something about my own research from the lips of someone else and to receive so much acclaim for it,” says Bühner. “This feedback, before my book has even been published, means a lot to me.”

While she was writing her thesis under the supervision of Prof. Martin Kintzinger at the Department of History, Julia Bühner benefited from the fruitful environment of the University of Münster. In addition, she received important stimulation from the colloquium for doctoral students at the Max Planck Institute of Legal History and Legal Theory in Frankfurt, whose Director, Prof. Thomas Duve, was one of the supervisors of her thesis. Münster was the right place for the historian Bühner, who finds relaxation in playing the piano. “I love the Domplatz and Fürstenberg House and the libraries,” she says. What she likes about the area she lives in – Gievenbeck – is all the greenery. Might she perhaps fly back to the Canary Islands for a holiday? “Probably not,” she says with a laugh. “What I find much more interesting there are the archaeological digs. There’s still a lot of research being done there and it’s reasonable to expect that in future we’ll be able to learn new things about the fascinating history of the Canaries.”



Young
Historians'
Prize

Julia Bühner in front of the Hall of Peace: from the European viewpoint, the Peace of Westphalia, concluded here in 1648, is seen as a milestone in the history of international law.

In Alexander Fleming's footsteps

Prof. Ivan Berg is a successful microbiologist. In October, he and three other researchers received an ERC Synergy Grant – for him, the perfect opportunity to find out more about the metabolism of primeval microorganisms. *André Bednarz*

Some interviews need a lot of steering, they need a lot of questions to be asked, and the interviewee has to be constantly nudged along. And there are others which are marked by such a degree of enthusiasm and straightforwardness on the part of the interview partner that all the interviewer has to do is listen attentively and immerse himself in a new world he never encountered before. Dr. Ivan Berg, a professor at the Institute of Molecular Microbiology and Biotechnology at the University of Münster, makes such a conversation possible. He knows exactly what will interest someone who wishes to write a portrait of him: his background, his career, the focus of his work, personal details.

Ivan Berg comes straight to the point and comments on something obvious: his accent. If listeners suspect that he comes from Russia, they are right. Berg was born in 1975 in the Russian capital, Moscow. His career is closely linked with his background: he was about 13 years old when he realised what he wanted to be – a microbiologist. At that age he was given a book about Alexander Fleming, who discovered penicillin, and it kindled his enthusiasm. He immediately joined a club at school in which he could breed bacteria. “Every Saturday I looked enthusiastically into the petri dish to see if anything had grown there,” he recalls.

For almost 30 years Moscow, with its population of 12 million, was the centre of Ivan Berg's life. His childhood, his studies, his PhD, and his work as a research associate are all connected with the city. In 2007 he headed west – specifically to Freiburg. “In Moscow I couldn't progress any further in my research,” he says, “and so I applied to Prof. George Fuchs in Freiburg and embarked on a successful period there – one that was actually romantic from a scientific point of view.” With support from microbiologist Georg Fuchs, Berg forged an academic career in Germany. From 2011 to 2016 he received a Heisenberg scholarship, which enabled him to transition from the position he had as a postdoc to his own professorship, which he took up on 1 October 2016.

His professional success, which began in Freiburg at the latest, is still something which Ivan Berg enjoys in Münster. As a specialist for metabolic pathways, his research looks at what conditions an organism processes carbon under, and how it does so. What is important for him is firstly to recognise a problem, secondly to confirm it as such, and thirdly to solve it. This is also the aim of the “Archean Park” project, his most recent success. In October, he and three colleagues from the Universities of Bremen, Potsdam and Duisburg-Essen were awarded an ERC Synergy Grant worth 11.5 million euros. In this project, set to run for six years, the researchers want to study life under primeval conditions such as existed on Earth two-and-a-half to four billion years ago, pursuing the question of the role played by a high concentration of carbon dioxide in the metabolism of microorganisms. Ivan Berg is convinced of his project. “There is no better team than ours – each is the best in the world in their field,” he says.

It is clear to see how proud and delighted he is at receiving the grant. He happily shows a cold alcoholic drink, enriched with the microorganism yeast, which happens to bear the name “Berg”, and which colleagues brought along to celebrate the award of the grant. But there is something else which drives him on. “A grant is something formal. I get more pleasure from discovering something new and finding that one of my hypotheses turns out to be right,” he says.

The great enthusiasm with which Ivan Berg talks about his work almost makes one forget that he is more than just a scientist. His eight-year-old twin children are very good at helping him to forget microbiology, at least for a few hours. “It's a great delight for me to watch my children grow and, as a result of the changes they experience, to change too, myself. However, Ivan Berg's nice sentence that you can't get science out of your head shows that his work doesn't finish when he passes through the Institute door – and that every day he still lives the dream he had as a 13-year-old.



Ivan Berg in front of the logo of his “Archean Park” research project. Tongue in cheek, he and his colleagues adapted their logo from that used for the “Jurassic Park” films.

Engagement for climate and healthcare

At the “Klima-Limette” centre, medical students learn about the impact that climate change can have on our health. Co-director Franziska Köster, herself a medical student, has played a key role in developing the simulation training. In November the Association of Health Insurance Funds awarded the Future Prize to the project. *Julia Harth*

The light is subdued, and here and there a whisper can be heard in the round room designed in black. By the walls there are twelve small tables with laptops and telephones, and through the large glass panels can be seen the same number of surrounding “treatment rooms”, each about eight square metres in size. Teaching staff from the Medical Faculty concentrate on observing students in these rooms, noting down how they deal with “case studies” – in other words, how they handle patients, record their medical histories and make diagnoses. The windows are one-way mirrors to prevent any disturbances. The trainee doctors have to deal with six cases in a short period of time and under conditions which are as realistic as possible. This place bears the name “Limette” (the German acronym stands for “Learning centre for individualised medical training and development”) and is located on Malmedyweg in Münster. The people whom the students have to treat are all actors.

In the middle of the observation room stands Franziska Köster. She looks relaxed – everything is going fine. This morning she is a student, a co-lecturer and an organiser all rolled into one. Together with some of her fellow-students, the 25-year-old has developed simulation training which focuses on the consequences of climate change for people’s health – a topic which has received hardly any attention so far in students’ medical training. Mental stress, heat-induced circulation problems, or increased infections due to climate change: the wide range of patterns of illness require medical staff to have not only broad medical knowledge but also the courage to overcome their own uncertainties when they have to act in a patient’s best interests in a situation which is not entirely clear. “I am convinced that for us, in our later careers, the consequences of climate change will be very relevant,” Köster says – which makes it all the more important, she adds, for medical students to be prepared for it. “Many of us in our generation find climate change frightening,” she says. Sit back and do nothing? That’s not her philosophy.

Franziska Köster likes to spend her free time surrounded by nature or engaging in unusual sports such as canoe polo or acrobatics. While she was still at school she did

voluntary work in her local church parish, and after her Abitur exams she did a voluntary year in the “Work and Ecology” environmental education project in her hometown of Bremen. “I’ve always liked getting involved and thinking up projects for children and young people,” she says.

Shortly after she begins her medical studies, friends introduce her to the “Health for Future (HFF) action group, an association of people from the healthcare sector engaged in climate protection. She goes on demonstrations and joins in protest vigils. “Doctors enjoy a high level of trust in our society,” she says, “and we need to be aware of this role we have.” In the Münster section of HFF she is involved in the working group for teaching. Everything revolves around the question of when climate change can be a part of medical studies. “We didn’t want a lecture in which students learn everything by heart and then often forget it again,” she recalls. “Rather, we wanted to find a format which was cool and could be put into practice.” Away from the action group, she and fellow-student Kyra Lilier, along with three more women students, then contact the medical director of “Limette”, Dr. Helmut Ahrens. “He thought it was a great idea and first explained to us in a workshop how some practical training could develop out of our initial ideas,” she recounts with a laugh. “We had no idea about how to teach.” In the winter semester 2022/23 a pilot project bearing the name “Klima-Limette” gets through its final rehearsal and, after short and intensive preparations, succeeds in being incorporated as an optional subject into the teaching programme at the Medical Faculty. The simulation of case studies also includes an eLearning unit and an evaluation seminar.

In November 2023, the German Association of Health Insurance Funds awards the Future Prize to the project, thus acknowledging the importance of the initiative. Franziska Köster will soon be taking her final examination and then embarking on her year of practical training, and her greatest wish is that “Klima-Limette” is continued after the team who initiated it have graduated. She herself is not yet sure which direction she herself will be going in. Anaesthesia or general practice are exciting options, she says. “Basically, everyone hopes they stay healthy. I’d like to make my contribution to that.”

Medical student Franziska Köster at one of the observation posts at “Limette”: From here, teaching staff from the Medical Faculty evaluate how students in the “treatment rooms” deal with the case studies in their practical training.

The fun of brainteasers

In December the German Research Foundation awards the Gottfried Wilhelm Leibniz Prize to Eva Viehmann, Professor of Theoretical Mathematics. It is the most important research award in Germany. The prize now gives her a high degree of freedom and self-determination. *Dr. Kathrin Kottke*

Eva Viehmann was fascinated by mathematics while she was still at school. At home she was motivated by her father, who is also a mathematician, and together they looked beyond the confines of school mathematics. “It’s a subject which contains so much more than just calculations,” she says. “It makes you think about how numbers and geometrical objects are related, or about how to solve mathematical brainteasers. Even then, it was fun for me – and it still is today,” says Viehmann, 43, who has been researching and teaching at the University of Münster since February 2022. Talking to her about her work, or watching her in her lectures and seminars, you can feel her enthusiasm for her subject. And it was this passion, as well as her skills, which convinced the German Research Foundation to award her the Gottfried Wilhelm Leibniz Prize in December.

Over the past few years, Eva Viehmann has been doing research primarily on arithmetic algebraic geometry as part of the Langlands Program. This was set up by Robert Langlands, a Canadian, in 1967 and it consists of a series of far-reaching conjectures which connect number theory and representation theory with each other. “This project belongs to one of the most fascinating fields of theoretical mathematics, and research on it is nowhere near completion,” she explains. It comprises what appear to be enigmatic connections between on the one hand number theory – i.e. the theory of integers – and on the other hand representation theory, which deals – roughly speaking – with symmetries.

Numerous prizes and awards – including two ERC Grants from the European Research Council – bear witness to the fact that Eva Viehmann is an expert in her subject. But what means more to her is the recognition shown by other colleagues in her field. “It makes me happy when other researchers who understand what my work is about can appreciate the results of my research and continue work on them,” she says. After all, she comments, research is all about working together to push projects forward, increase knowledge, carry out verifications

and extend the findings we already have. In addition, she also talks about her work outside specialist groups – for example, in podcasts, videos or interviews. For her, it is important that the image of mathematics, and access to the subject, should change. Patience and perseverance are decisive factors for any success in mathematics. “We don’t use just one single method or process for making calculations. Rather, we try to understand what is behind things, and how we can tackle the actual problem,” is how she explains her work. This can certainly take months, or even years, she says. Sometimes you even have to break off a research project, she adds, and admit to yourself that you’re stuck at a dead end – which makes it all the more gratifying when you achieve a breakthrough in your research after a long time and can share it with others in the worldwide community of specialists.

After her academic career had taken her to Bonn and Munich, Eva Viehmann came to Münster about two years ago. “Among mathematicians there is a basic community spirit marked by solidarity and tolerance,” she says, “and I experience this feeling of community particularly strongly in Münster. This openness and collegiality is not something that can be taken for granted. Moreover, she says, Münster provides an ideal research environment in her particular field of pure mathematics, which includes for example algebra, topology, functional analysis and number theory. At the Institute her immediate neighbours are colleagues who are working in closely related fields. Eva Viehmann can now use the 2.5 million euros which the Leibniz prize is worth to expand her working group in accordance with her wishes. “It’s great that I can now offer excellent researchers from all over the world the opportunity to come to Münster and join in our research. That will give me the freedom to do what I really want to do,” she adds – because she still has plenty of aims for her research. “What drives me is the urge to make new insights and to understand unsolved problems. I never get tired of brainteasers.” Whether with colleagues at work or with her children at home – just as she experienced it during her school days.



A piece of chalk and a blackboard – often, that is all Eva Viehmann needs for her research and her teaching.

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