

KontakTUM Special Issue

For Alumni of the Technical University of Munich Spring/Summer 2018



Please, Take a Seat!

A Jubilee Interview Issue



Transcending All Borders

Her year of studying in Munich was formative for Susmita Sinha from India. Her father, an engineer himself, has always inspired her and encouraged her to take this step. Out of gratitude she is now financing a scholarship for a young Indian female student.

www.tum-universitaetsstiftung.de

Read the whole story at

www.150.alumni.tum.de/deutschlandstipendium





Dr. Sabrina Eisele and Dr. Verena Schmöller

How We Celebrate

Birthdays are exciting. You imagine what the party will be like, make plans, invite friends. The excitement is growing from week to week and then finally, the big day is there. After long months of preparation TUM is now right in the middle of its grand anniversary year. It is turning 150 of age. The TUM Family has celebrated the university's founding date on the 12th of April with a festive event in the Herkulessaal of Münchner Residenz, which also President Frank-Walter Steinmeier attended. (p. 8).

In his speech on the Jubilee Day, TUM President Wolfgang A. Herrmann depicts the emotionally coherent university family as TUM's real secret of success. Accordingly, TUM is proud of its alumni, whose achievements are the best advertisement for our university. In this and the following Jubilee Issue of KontakTUM, we will present selected alumni in interviews, who have made remarkable accomplishments and have experienced extraordinary things. (from p. 11)

Return to your alma mater with hundreds of other alumni on the day of the Alumni Homecoming (p. 72), win tickets for an exclusive performance or Richard Wagner's "Die Meistersinger von Nürnberg" (p. 57), visit exhibitions on the history of TUM (p. 52) and meet up with alumni all over the world (p. 58).

Join the TUM Family to celebrate 150 years Culture of Excellence!

Alumni Celebrating Excellence | 150 Years

The alma mater is celebrating its birthday and the entire TUM Family joins the celebrations. On the Jubilee Website for Alumni you can get information on alumni events during the Jubilee Year, read the stories of other alumni, and have a look at what is happening at your alma mater during the Jubilee Year in the section ,Impressions'.

www.150.alumni.tum.de



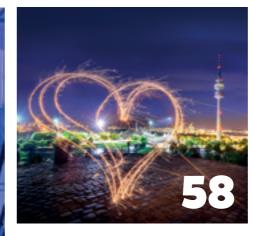
TUM Special Issue Stamps

In honour of the TUM Jubilee the Federal Ministry of Finance is issuing a 150-cent stamp. It depicts three iconic TUM buildings: the Oskar von Miller Tower, built 2010, which collects weather data for research at Campus Garching, the Thiersch Tower, built 1916 at the main campus and the legendary "Nuclear Egg" from 1958, Germany's first research reactor.

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in English and German www.together.tum.de/epub

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Ms Vice President, why are alumni important for a university?

Home and Trust In his speech at the festive event for the founding date of TUM on the 12th of April, President Wolfgang Herrmann commemorated the thousands people who have worked hard and unpretentiously for TUM. The full speech can be found here: https://portal.mytum.de/archiv/reden_p

Families are connected to each other though a unique King Ludwig II. of Bavaria as the small "Royal Bavarian bond. Daughters and sons, parents and grandparents Polytechnic of Munich" is celebrating the anniversary live their own lives throughout the year, deal with their of her foundation this year. For many of us she reprepersonal challenges, maybe even in different corners sents home and trust. Hence this major anniversary of the globe. But for major holidays everybody returns offers many occasions for the TUMlings to come tohome, sits down at the table together and talks to gether: the students with their dreams and ideas, staff each other about the events that influence ones' lives and professors with their academic passions, donors and the things they have learnt. The TUM Family is ce- and patrons with their generosity and of course our lebrating a very special holiday this year: our univer- alumni with their memories and their prosperous work sity turns 150. The internationally high ranking entre- as scientists, engineers, doctors and teachers. Meanpreneurial university, founded on April 12th, 1868 by while our lively worldwide network consists of 67.000

alumni. Some of them - which have particularly extra- have invested about 20 million euro into the new brand sion of this important jubilee. In this alumni magazine now on. This is money well spent on our offspring. they tell us about their childhoods, time studying, their private and professional successes: VW CEO Dr. Her- The brand TUM is making an impact, our graduates whole family.

Only that, which moves

According to the significant aphorism by German ly- During the anniversary year, we celebrate our univerric Peter Rühmkoft "only that, which moves is able to sity together as a family. We enjoy returning home to encounter". This is especially true for a place such as our alma mater and let the changes on site inspire us, our university, whose paramount driving forces are cu- as well as share our experience. In the years to come. riosity and innovative spirit. Steady growth and change the TUM Family's solidarity and commitment will be recharacterise the history of TUM since its beginning. quired more than ever. It is imperative to keep up with The beginnings were humble - 400 students and 24 the ever-increasing international competition. Let's professors make up the first cohort in 1868. In 2018 do it together! "Nulla dies sine linea" - no day without there are more than 40.000 students and about 550 aim, no day without productivity. Every day is intenprofessors. Meanwhile every fourth student is from ded for the future. Join the commitment! Express your abroad. We have longs since been an international uni- gratitude to your alma mater by donating to the University.

US company Google is a new ,TUM Partner of Excel- success! lence' and will cooperate with TUM, amongst others, in the areas of Artificial Intelligence, Machine Lear- Warm regards and with gratitude of the whole ning and Robotics. Google donated one million euro university family to the TUM University Foundation, which especially supports young academic talent. Together with the Yours Dieter Schwarz Foundation, TUM with its TUM School of Management is going to actively get involved in the Education Campus Heilbronn and set up its own teaching and research centre. This year the central infrastructure project GALILEO will be launched on campus Garching. In addition to the new main auditorium, the new cafeteria and other TUM facilities, a hotel with Wolfgang A. Herrmann guesthouse and a convention centre will become part President (Diploma Chemistry 1971) of the campus and bring even more life to it. For our students we will build or refurbish student houses in Munich, Garching and Freising-Weihenstephan; we

ordinary resumes - do TUM the honour on the occa- "StudiTUM", which these buildings will be called from

bert Diess, luminary in the area of control engineering are sought after all over the world. More than 4.000 Professor Eveline Gottzein, laureate of the Nobel Prize well-grounded and solidly trained graduates, as well in Chemistry Ben Feringa, actress Dr. Maria Furtwäng- as about 1.000 young doctorates enter professional ler, coach of the national football league Manuel Baum life year after year. The most recent "Employability and benefactor of the university Rainer Stellwag re- Ranking" put us on rank 8 worldwide, framed by Oxminisce their student days and what they owe to their ford and Princeton. Annually 60 to 70 new companies alma mater. For the big Alumni Homecoming (S. 74) grow out of TUM - currently more than 12.500 jobs on October 13th in autumn this year, we will welcome have resulted from the last twenty years. Our goal is to more alumni than ever at their alma mater. After all equip our students with what is needed to responsibly birthdays are most beautiful when celebrated with the guide processes of change in our society, so that they can shape the future of the generations to come.

Nulla dies sine linea!

versity Foundation in the Jubilee Year and thus enable the young generation to have the same high quality 2018 will bring some exciting novelties: since February education that is the foundation or your professional

Lothany A. Ullean

Festive Event

TUM has celebrated its founding date on the 12th developments. The Bavarian Prime Minister Dr. Marthey are oftentimes right at the front in important anniversary.

of April with a grand festive act in the Herkulessaal kus Söder emphasized the importance of TUM for of Münchner Residenz. TUM President Wolfgang A. Bavaria as a location for research and industry. Mi-Herrmann welcomed the festive audience consis- nister of Finance Olaf Scholz presented the special ting of 1.200 invited guests. In his speech Federal issue stamp for the TUM Jubilee. The Symphonic President Frank-Walter Steinmeier called for more Ensemble of Munich conducted by Prof. Felix Mayer courage to shape the future. TUM and its Alum- performed the premier of the festive piece, specifini have the "zest for the future" he wishes for and cally composed by Franz Hummel for the 150 year





1. Presented at the festive act on stage: the special issue stamp for TUM. 2. Entrepreneur Susanne Klatten, member of the Supervisory Board of BMW AG Supervisory Board Member and Chair of the Supervisory Board of UnternehmerTUM, and Dr. Nicola Leibinger-Kammueller, Chairwoman of the Management Board of Trumpf and TUM Board of Trustees member. 3. Minister Ilse Aigner, Mayor of Munich Dieter Reiter, Minister of Finance Olaf Scholz, TUM President Wolfgang A. Herrmann, Federal President Frank-Walter Steinmeier, Prime Minister Markus Söder, Minister of Science Prof. Marion Kiechle. 4. Entrepreneur Martin-Devid Herrenknecht (Diploma Mechanical Engineering & Management 2008) in front of the Hyper-loop Capsule prototype. Tunnel construction company Herrenknecht is TUM Partner of Excellence. 5. Barbara Stamm, President of the Bavarian Parliament, and Ulrich Wilhelm, Artistic Director at Bavarian Broadcasting, TUM Board of Trustees members. 6. Dr. Ana Santos Kühn, former TUM Vice President, Dr. Norbert Reithofer (Phd Mechanical Engineering 1987), Chairman of the Supervisory Board of BMW AG, und Senator E.h. Dr. Dieter Soltmann (PhD Brewing 1970), former Chairman of the Supervisory Board of Münchner Spaten-Franziskaner-Bräu, with his wife Ursula. 7. Dr. Reinhard Ploss (PhD Mechanical Engineering 1990), Chairman of the Management Board of Infineon, and TUM Vice President Prof. Dr. Claudia Peus. 8. TUM Vice President Prof. Dr. Juliane Winkelmann and Prof. Dr. Florian Bieberbach (Doctorate Economic Sciences 2001), Chief Executive Officer at Stadtwerke München. 9. Prof. Dr. Peter Tropschuh (PhD Mechanical Engineering 1988), Head of Corporate Responsibility Audi AG, and Prof. Dr. Birgit Spanner-Ulmer (PhD Mechanical Engineering), Director of Production und Engineering at Bavarian Broadcasting. 10. TUM Vice President Dr. Hans Pongratz (Diploma Computer Science 2004) with his father Prof. Dr. Hans Pongratz (Diploma Mechanical Engineering 1970). 11. Equipped with a glass of JubilaTUM, TUM Research Brewery's anniversary brew: President Steinmeier with the student team WARR Hyperloop.





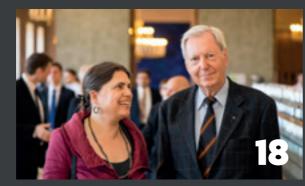








Many of TUM University
Foundation's donors are alumni
of TUM and honoured their
alma mater at the festive event.
Here, we would like to
introduce some of them.



12. 12. Prof. Dr. Gallus Rehm (PhD Civil Engineering 1957), engineering consultancy and testing facility Prof. Dr-Ing. Gallus Rehm. 13. Prof. Dr. Dieter Anselm (Diploma Mechanical Engineering 1972), former Managing Director of Allianz Zentrum für Technik GmbH, with his wife Karin. 14. Max Aicher (Diploma Civil Engineering 1957), owner of the Aicher group, with his wife Evelyne. 15. Dr. Reinhard Gradl (Diploma Chemistry 1971, PhD 1973) with his wife. 16. Dr. Jürgen Kulpe (PhD Chemistry 1986), CTO of Döhler Group, and Dr. Franz-Robert Klingan (PhD Chemistry 1995), partner at Bain & Company Germany. 17. Stefan Klemm (Diploma Mechanical Engineering 2003), Fuchs & Klemm, and Dr. Daniel Tomic (Phd Mechanical Engineering 2009, MBA 2015), Managing Director and member of the Management Boards of Tomic Group. 18. Senator E.h. Hanns Weidinger (Diploma Electrical and Computer Engineering 1964), former Managing Director Weidinger GmbH, with his niece Katrin Lehr.

Please, Take a Seat!

Six Alumni interviews

This year TUM is celebrating a big anniversary.

Six Alumni express their bond with their alma mater and return for an interview to their former place of study. All of them have made remarkable accomplishments and experienced extraordinary things. In this issue they talk about their childhoods, student days, their private and professional achievements.





V W C E O

HERBERT DIESS

Motion is my main passion.

The newly appointed VW CEO on his time at TUM, his vision for mobility and his life in and for motion.

When VW CEO Herbert Diess gets off his car at TUM Campus Garching he immediately feels taken back to his time as a student of mechanical engineering: "This is exactly how we used to sit there and studied", he remembers when seeing the students with their books in front of the Institute for Machine Tools and Industrial Management. Just a few weeks ago the engineer has been appointed the new Chief Executive Officer of the Volkswagen Group. Prior to that the 59-year-old had been head of the master brand for two years. With KontakTUM he talks about his time at TUM, his enthusiasm for Matchbox cars and his career.

KontakTUM: Dr. Diess, where does your passion for cars come from?

As long as I can remember I have been fascinated by cars and motorcycles. It all started in kindergarden with a small box of Matchbox cars. These were such little toy cars on a 1:43 scale. In addition to that my grandparents had a farm where I got to drive tractors and motorcycles before I even had a driving license. Motion has always been my main passion. Accordingly my career has fulfilled many of my dreams.

Aren't cars a discontinued model – especially in main cities and for young people?

There are people who see it like that but I don't share this view. Mobility is simply a lot more that moving from one spot to another. The experience of driving a beautiful car exceeds mere transportation.

How are we going to move in the future?

Mobility demands worldwide are rising: people have more leisure time and accordingly move around more, families travel a lot more than before. In the years to come, cars are going to lose many of the disadvantages they have today. The electric drive is right around the corner, which will lead to much more sustainable driving. Automated driving will make sure that we are safer when moving around. The position of cars will be stronger in the future, not weaker.

You think that automated driving is going to come?

Yes, of course, it is really only a matter of when we dare to.

What technology is required for that?

I think it's not enough for the car to be as safe as a driver. It is also not enough if it is ten times safer than a driver. It probably has to be rather 1.000 or 10.000 times safer than a human driver. In terms of technology that is feasible. The possibilities, which will open up in the next years are tremendous.

You started to study Automotive Engineering at the University of Applied Science and came to TUM to study Mechanical Engineering afterwards.

Many good memories are connected to that. There were pro-

fessors who taught us a lot, also emotionally. For that time, the iwb, the Institute for Machine Tools and Industrial Management was already very practice-oriented and geared towards the industry. We had possibilities to work with companies from the industry, such as BMW, Audi or Daimler. An amazing chance to also get a feeling for what the working world is like. On top of that I have formed friendships, of which some are still holding strong today. For that I am grateful. After my diploma I helped out in a classmate's family business in Algeria for almost a year. That was an interesting time. But I also liked coming back to TUM for my doctorate.

Then you became research assistant at the renowned iwb.

That was a very nice time. The challenges of really diving deep into a topic - over three, four or more years do have a maturing effect. And the university's reputation was good, too: saying you studied at TUM was always received well. But of course the location also offers a lot of distractions.

What do you mean?

I have always liked doing sports and for example was involved in the academic sailing club. And then of course, in Munich the mountains and the amazing range of offers by the Central University Sports are constantly beckoning.

Have you ever thought about staying in research after your doctorate?

Yes. Back then I had published a lot and we applied for many research projects, which led to a corresponding collaborative research centre here in Munich. I enjoyed that a lot. I filled in at lectures and worked with the students. That's why I definitively would have liked an academic career as well. But in the end I decided for the industry, not least because here, you get to influence things a tad more.

You have made an impressive career in the industry: straight after your doctorate you joined Bosch in Stuttgart, from 1996 onwards you worked for BMW in various management positions in Germany and abroad and



On his visit at TUM Herbert Diess also took a tour through the Institute for Machine Tools and Industrial Management (iwb) of TUM, where he used to work as a research assistant and doctorate student. iwb is one of the research institutions for production technology in Germany and comprises two chairs of the Faculty of Mechanical Engineering at Campus Garching, as well as a production technology application centre in Augsburg. iwb's research contents and emphases are in the areas of additive manufacturing, machine tools, assembly technology and robotics, joining and cutting technology, as well as production management and logistics.

then from 2007 until 2014 as a member of the Executive Board. Juli 2015 brought the change: since then you are heading the Volkswagen brand.

It intrigued me a lot to take responsibility at Volkswagen. The company had fallen slightly behind in 2015, the sales numbers dropped and the impact of the brand had been lost a bit. I really wanted to bring new momentum and prepare Volkswagen for the great changes of our industry.

Then your task got even more exciting than expected: three months after you took on the job at VW, it became known that Volkswagen had used a defeat device in its diesel vehicles' engine control, which allowed for the circumvention of US-american emission standards. Suddenly you were a crisis manager. What are your qualifications for that?

You have to love what you do

My versatility: in the course of my career I worked in many different industrial areas, initially a lot in production and then in strategic departments. When BMW bought Rover, I was for example deeply involved in the reorganization process. Later on I was responsible for the worldwide motorcycle business of BMW. A very nice job. From 2007 on I managed the board division Development at BMW. The different experiences with the various technical issues helped me a lot to be able to carry such overall responsibility.

The responsibility that is on your shoulders hasn't diminished: just a few weeks ago you have been appointed the new Chief Executive Officer of the Volkswagen group. How do you prepare for the tasks that lie ahead of you?

That is a fluent transition. After all I had the opportunity to get familiar with the company for almost three years. And I can take on the new responsibility on the foundation of a successful business development. The main thing is the corporation's further development. My predecessor

Matthias Müller has started the redevelopment in 2015 with the right steps. The corporate strategy is coherent. Now it is about following this course and picking up the pace even more

What is your future vision for VW? Are you a revolutionary?

I don't like using catchphrases that much to describe a differentiated development. Right now, for Volkswagen it is about evolution, not revolution. In a time of profound transformations in the automotive industry we want to take the right strategic step and make our mark in the areas of electro mobility, digitalization and new mobility services. Our aim is to make Volkswagen, as one of the leading companies of our industry, a key player in the future of individual mobility.

Have you passed on your engineering gene to your children? After all, all three of them are study in this field, your youngest daughter even here at TUM.

I wouldn't call it a gene (laughs). But my children have seen their father enjoy his work, being able to achieve a lot and travel the world. Maybe that has encouraged them to take a similar path.

Enjoying the work – is that part of your winning formula?

Passion for the product is important. You have to love what you do. To me my profession is a godsend because I am a passionate motorist, motorcyclist and car maker. This also gives me the motivation to cope with a big work load.

Your every-day life is probably still very exhausting: how do you find a balance.

So far I have always managed to get enough exercise and also distance. I enjoy the mountains: skiing in winter, some hiking in summer or occasionally climbing and some alpine tours. Also, I like sailing. I have a high need to move and here I usually also am able to recuperate. In recent years I took up kitesurfing and paragliding. I simply am and will be a fan of motion.

BIOGRAPHY

DR. HERBERT DIESS

(Diploma Mechanical Engineering 1983, PhD 1987)



Herbert Diess studied Automotive Engineering at the University of Applied Science in Munich before changing to TUM in 1978 and earning his diploma in Mechanical Engineering in 1983. After finishing his degree he worked for almost one year in the industry before returning to the Institute for Machine Tools and Industrial Management (iwb) of TUM as a research assistant and doctorate student. Having finished his doctorate in 1987 he worked for Bosch in Stuttgart and for Treto in Spain before joining BMW AG in 1996. Here he held various management positions in Germany and abroad and also became a Board of Management member, where he intensely promoted the development of the electric car, amongst other things. In June 2015 he joined Volkswagen to head the Volkswagen brand. Mid April 2018 Herbert Diess was appointed the new Chief Executive Officer of VW. He is married and has three adult children.



CONTROL ENGINEER

EVELINE GOTTZEIN

lam tenacious and never give up.

The expert in the area of levitation railways talks about her life right at the pulse of history and her leadership role in a male-dominated industry.

Before escaping the GDR Eveline Gottzein sent her physics books via post to the West. It was here that she finished her technical studies, which had been denied to her in the GDR for a long time due to her middle class background. As an expert in the areas of trajectory and attitude control systems and levitation systems for maglev trains, amongst others, she then delivered an impressive career and managed projects all over the world. For her achievements she received the Bavarian Order of Merit, the Federal Cross of Merit, and as the first woman so far, was honoured with the Werner-von-Siemens-Ring.

KontakTUM: Ms Gottzein, you have done an apprenticeship, have been fully immersed in professional life already – and then started all over again by going to university. How was that?

I always wanted to study, ideally Mathematics and Physics but due to my middle class background and because the rector didn't like me, they didn't suggest me for studying. That's how it was in the GDR back then: if you weren't suggested, that was it for the time being. That hurt because already in elementary school I was interested in technical areas. My father is an engineer, he always wanted sons but only got girls. But they were as interested in Engineering as he was. Even though my mother already threatened him when the second daughter was born: "You are not going to turn this one into a boy again" (laughs).

What did you do instead of studying?

An apprenticeship in Electrical Engineering at the RFT Centre for Telecommunication in Leipzig. It instantly fascinated me, especially working in the development lab. Apparently my work was also pretty good and I was suggested for activist. This was a GDR award for people whose achievements exceeded the norms and standards. As an activist I was delegated by my employer to go study at the University of Applied Science in Dresden. Even back then women were desperately sought after for technical professions. This set the tracks for my future life.

You have developed electrical equipment to simulate complex industrial processes during your studies. So far this had not existed yet. In 1957 it was one of the highlights of the spring trade fair in Leipzig. Then you fled.

Because I had developed the simulation system MOSYAN I got a consultant contract and was able to go to Berlin and also to take luggage – of course everything very carefully.

Did your family know about your plans?

My father didn't know anything but he suspected it. My mother told me afterwards that dad came back from Berlin and said: "She won't come back". When I saw my sister again for the first time years later she said to me: "You did

the right thing". Thank god – because she had to carry that I escaped. She was a glider pilot and obviously very good – but then she wasn't allowed to fly anymore. After my escape my family was under special observation, the whole house was bugged.

You have experienced history first hand.

Yes, indeed. But you know, you really don't realize that when you are in the middle of it. You perceive it as threatening or amazing, you play along, as far as you are able to. It was only later that I understood the consequences.

What was it like when you arrived in West Germany?

First I was in Gießen in the refugee reception centre. I knew all along that I wanted to go to Darmstadt to study. From literature I already knew the names of the for me most relevant professors. Being in Gießen I was in Hessen already, so that was convenient.

What did you take with you on your ,journey to the West'?

I remember very well how I put favourite books in the mail-boxes as parcels to sent them to ,the West' like this. These were for example the textbooks by Heinrich Georg Barkhausen, the German physicist, I still attended his lectures in Dresden. He was one of the pioneers of x-ray technology. With that I had a nice foundation for my new library. I did however not have documentation of my exams or certificates in my luggage. That's why I had to start again from scratch in Darmstadt. They also wanted me to do the Abitur.

You really had to go back to school again?

Luckily it turned out well thanks to professor Joachim Maruhn, who was in Gießen and who vouched for me: "Send my regards, I wish her all the best" and so on. I just had to retake the diploma exams but that wasn't a problem at all. One of the professors reassuringly said: "You don't have to be scared, we aren't asking any terrible questions." And I said: "Professor, this is not an issue. I have worked in this field".

You already worked during your studies?

I had a small scholarship and benefitted from the so-called



Eveline Gottzein is still proud of her dissertation, in which she developed the foundations for the Transrapid's levitation system. The thesis is 532 pages strong and is one of her most requested publications online. Visible on her hand: the Werner-von-Siemens-Ring, with which she was honoured and which is being individually made for each laureate.

"Hessenerlass" (Hessen waiver), just like a native from that area I didn't have to pay tuition fees. In the beginning I sold knitting machines on the side, as well. In Hessen I drove out to the countryside to farmwives who were perfect in knitting and explained to them how to do it with a knitting machine. That was a funny experience but just a short episode. And then things happened faster than I was able to keep up with. During the semester breaks I worked for the computer company Electronic Associates in Brussels, later even with a contract during my studies. So I flew and drove back and forth between Brussels and Darmstadt. On top of that I took my exams.

That must have been exhausting.

I was fascinated by the opportunities and determined to use them to the greatest possible extent. I still remember preparing for my theoretical exam in Physics. I arrived by plane from Brussels and we had been in the waiting loop over Frankfurt forever. I had Arnold Sommerfeld's textbook on my lap. I continued working, reading, the whole chapter. We landed delayed and I immediately called the professor who said I could postpone the exam. I said: "No professor, I am going to rent a car and am coming straight away." He was very worried and told me to drive carefully. And what did they ask in the exam? Exactly the part of Sommerfeld I had just been reading on the plane.

Of course you passed the exam and then you came to Bayaria.

Yes, Prime Minister Franz Josef Strauß had brought helicopter and airplane manufacturer Bölkow to Munich back then, to Ottobrunn. It was there they had testing grounds of the Institute for Aerodynamic Testing, with giant wind tunnels. Bölkow made rockets there: Kobra, Milan, Hot and the big Roland, the anti-aircraft missile and then very large carrier rockets, the precursors of Ariane. For that

they needed control and simulation systems. They wanted me to join them and build the system simulation. Due to my work in the simulation centre of Electronic Associates in Brussels I had the relevant experience with the simulation of complex technical systems, such as airplanes and nuclear plants. One of their arguments to persuade me was: "and this beautiful environment, the lakes and the mountains". My response was: "I am not interested in mountains at all!" I wanted to go to America, to the USA, to Princeton. Well, and then in the end I decided to help set it up. I stayed – for 50 years.

And what about the Bavarian surroundings. Have you learnt to love the mountains by now?

That is the funnies part in all of this. When I had finally finished my diploma thesis I went to the mountains. I still remember it exactly, it was a new year's morning, beautiful winter weather. And I thought: "Ah well, you have to get some hiking boots, but wait till they are on sale, something very cheap because you

lam completely captivated by the mountains

don't know yet if you even like this". That was how it started. Shortly after I needed sturdy hiking boots and crampons, an ice pick and harness and pretty much spent all my free time in the mountains. Then I started skiing, which brought me all the way to Mont Blanc. Saying that I am completely captivated by the mountains is still an understatement.

After that you joined TUM to do your PhD. What motivated you to do that?

To be honest: I didn't need it at all to work back then. But I always had topics which fascinated me and which I worked on. Such as the maglev train. At that time the subject was trending and most of all: there were testing vehicles to try it. I already had lots of material and naively thought, I am going to take six week off and finish that. So I started writing and it was the way it probably is for everyone in a similar situation: all these gaps everywhere, which still require work. So it took five years. But I was consistent and said: "Ok, no mountains, as long as you haven't handed it in yet." In the end my dissertation was 532 pages strong, typewritten and edited with scissors and

glue. But I had developed the foundations of the Transrapid's levitation system.

At that time you had been working in the industry for over 20 years already and lead a main department for controlling and simulation. How did you master the double load of doing a doctorate?

I really could only work on my PhD after work and on weekends. But work never finished so I only had from Friday evening to Monday morning. I got a lot done on the plane as well. I will be forever grateful to my supervisor Professor Kurt Magnus of the Mechanics Institute and his scientific assistant at that time because they not only generously tolerated that but also supported it.

As a woman, have you ever felt disadvantaged in your studies or at work?

I did get to hear a lot. My relatives in Westphalia said for example: "Girl, what you look like again! This is all just because of all your studying nonsense." Common opinion was that that is not suitable for women. And at university we were 700 freshmen but just six or seven women. The few women who were in lectures with me came from abroad – France or Italy. And still today girls are less interested in technology because they are talked into believing it's not for them.

Can something be done about that?

I have hope. Since many years the Board of the Foundation Werner-von-Siemens-Ring intensively strives for the nomination of women. They have the Circle of Young Scientists. Their proportion of women is already quite considerable. Also technology itself is changing and offers a wider choice of professional options. I am committing to this cause whenever I see fit and have the opportunity to do so.

But you are still the only woman to have ever won the Werner-von-Siemens-Ring.

But it is being awarded for lifetime achievements. Accordingly you have got to have reached a certain age. In the future more women will be drawn to technology, because it is changing. My Mechanical Engineering internship was about compressing sand and adding pins to gears. You really have to be rather enthusiastic in order to like that. But today there are a lot more software-oriented approaches.

I imagine: in your role of head of department you are flying around the world with your team members and manage projects in Japan, China and Brazil. Being a woman, you must have been an exemption here.

Of course. I had to assert myself, especially in other cultures. You have to know what you want. That's the most important thing anyway, to know what you want. You have

to recognize your opportunities and come up with a strategy, a concept of how to use the opportunity and shape it yourself. Generally men are happy to have someone who tells them how it works, right?

Looking back on a very successful career. Which one of your characteristics have been decisive in your success?

I received a good physical-technical education on the foundations at good universities from excellent teachers. My main competency, I think, is that I recognize interrelationships, can develop concepts and that I am tenacious. I never give up. I am able to assess what might be successful and what won't work. And then I don't give in but keep going. Last but not least it was important that I have always found someone who supported me. I had very difficult times, very annoying times but I never let them get me down.

BIOGRAPHY

PROF. DR. EVELINE GOTTZEIN

(PhD Electrical and Computer Engineering 1983)

After her Abitur, Eveline Gottzein completed an apprenticeship in Electrical Engineering. From 1952 until 1957 she studied Electrical Engineering, Mathematics and Physics in Dresden, and after fleeing from East-Germany, in Darmstadt. As early as during her stud-ies she worked as an engineer at the Electronic Associates' European Simulation Centre in Brussels. In 1959 she joined helicopter and airplane manufacturer Bölkow in Munich and soon after managed international projects as head of department, amongst others, in Japan, China and Brazil. Alongside these activities she did a PhD at TUM on the topic of magnetic levitation trains. She is an honorary professor at the University of Stuttgart and "Distinguished Affiliate Professor" at TUM. To date she is the only woman to ever receive the Werner-von-Siemens-Ring, the highest award in Germany for people whose achieve-ments promoted Engineering Sciences or science representatives who opened up new directions to technology through their research. Furthermore she holds the Bavarian Order of Merit, the Bavarian Maximilian Badge for Science and Art, and the Grand Federal Cross of Merit and is Fellow of the International Federation of Automatic Control and of the American institute on Aeronautics and Astronautics (AIAA).



NOBEL PRIZE WINNER

BEN L. FERINGA

Sometimes nature is smarter than scientist like us.

The Chemist talks about the most important prize in science and The Simpsons about molecular machines and nano cars and his childhood on the countryside.

Ben L. Feringa grew up in a big farming family and was one of the few people in the village who got to go to high school. He studied, took up work in the industry and returned to academia. Then he received a call from Sweden and what many a scientist dreams of became true for him: together with Jean-Pierre Sauvage and Sir J. Fraser Stoddart he was awarded the Nobel Prize in Chemistry.

KontakTUM: Prof. Feringa, you received the Nobel Prize in 2016. How did you find out about that?

I got a call: it was a Wednesday, the 5th of October 2016. At 10:45 in the morning. I will never forget that. The official announcement was at 11:45. So they call you one hour before from Stockholm. I was at my desk in my office with the door open, discussing a tricky problem with a couple of PhD students.

Did you answer the phone yourself?

Yes, of course. I remember that I was still in the middle of a conversation. Then I picked up the phone and heard the secretary of the Nobel Committee. I sent the students out of my office and they closed the door. The secretary explained everything to me and after about four minutes he asked: "Are you still there Dr. Feringa? It's so quiet." I was in shock. I felt very honoured but I just didn't know at all what to say.

You didn't expect the prize?

The award came as a surprise. A Nobel Prize for this area of research had been suspected for some time of course: dynamic functions on a nano level, molecular motors and machines, a piece of plastic being able to move autonomously – such things weren't possible before. That is why this area of research had been mentioned a few times already, because it opened up so many new possibilities. But I never thought that I would actually receive the prize myself.

Why not?

I think this is like the Olympics: if you want to win a gold medal and are a good sprinter you don't constantly think about winning the gold medal. What you do is train hard, get up at five in the morning and start training before everyone else does, and you give it your all. And then, maybe you have a chance to win the gold medal. Hence I wasn't preoccupied with thinking about the Nobel Prize or any other important award. We simply tried to raise the bar and do difficult things. But there was a foreboding (laughs), I have to tell you about it.

Please do.

On a Tuesday evening in October 2010 a colleague from the USA called me. He said: "Ben, did you know that you were on American television yesterday – in The Simpsons?" Lisa Simpson and Milhouse Van Houten [characters from the

show] had a bet on who was going to win the various Nobel Prizes. In Chemistry they listed, amongst others, William E. Moerner from Stanford and Ben L. Feringa. Unbelievable! I was sure that was going the be the absolute highlight of my career: being mentioned in The Simpsons on American television – what else could you possibly want as a scientist? I was absolutely thrilled. But then you forget about it again. Moerner got the Nobel Prize in 2014, and I two years later.

You received the prize for the design and making of molecular machines. What exactly are molecular machines? Molecular machines are molecules or ensembles of molecules, which take on specific roles, carry out a specific motion or task. Think about the machines and motors in your body. The fact that we are able to move our arms, that we can see each other, that we have the ability to speak, that things are being transported in our cells. All this is based on nano-motors, molecular motors, the tiniest machines of one billionth of a meter in size, which carry out specific tasks.

Comparing these small machines to the mechanic machines in our large-scale world, could it be said that molecular machines are a mixture of Chemistry and Physics?

Yes, exactly. The foundation of our work is Chemistry, referring to molecules and molecular properties. Furthermore, we need the laws of Physics in order to perform mechanical functions or to provide energy for the molecules, so that a mechanical movement can be achieved, for example a rotation or translation. This is exactly what we do. At TUM, engineers are being trained. We are molecular engineers.

How do you work on such a small scale?

We design and build molecules by using chemical reactions. Molecules are made up from atoms, whose bonds between them we can break, and then put together in a new way. Or we can take parts of a molecule. This is how we build new molecules. Sometimes this only requires two chemical steps, other times, such as in the case of the molecular motor, it takes up to 30.

You have built the first nano-car. How did you get the idea, or rather how did you make the development of such mini-cars possible?



Many guest scientists have been at TUM to do research in the past decades and contribute to the university with their scientific expertise and international experience. Each year, some of these Research Alumni receive the honorary title TUM Ambassador, representatively for all TUM Research Alumni worldwide. Nobel Prize Winner Ben Feringa is one of them: in the picture TUM President Wolfgang A. Herrmann appoints the chemist TUM Ambassador in December 2017.

More about this at www.together.tum.de/ambassadors

Around 30 years ago we started with the basic idea of how the visual process of the eye works. Here, millions and millions of molecules are involved: when light hits the eye, the molecules perform something like a switch. Zero-one, zero-one. That was the basic idea: light-based information storage. This is how it all started. Ten years later we discovered – through a small coincidence – that the motion taking place in the molecule is not a small back-and-forth movement but in fact a kind of rotation, which happens when light hits the eye. We then worked on creating the motion of a full circle, a rotating motor. Then it took another ten years until we were able to build the first nano-car, which is based on these findings. But in the end we did it.

Have you always dreamt of becoming a scientist?

Actually I wanted to become a farmer when I was a child, like my dad. But he said to me: please go and study first and then you can decide. That is what I did, and I chose Chemistry. One of my brothers is now running the farm and works as a farmer.

Do you have many siblings?

I am from a very large family with nine brothers and sisters. My father and my mother are both from families of ten. And my wife is from a family with eleven members. I loved growing up in such a large family.

Why?

Having nine siblings, there was always something going on at home. We all still remember the many debates that accompanied our every-day life. There were always books in our house and in our large family. We all read quite a lot and in the evenings or over dinner we loved to debate. We had debates on every topic: history, culture, politics, religion, god-knows-what. Sometimes we drove our mother crazy because we sat at the dinner table for two and a half hours just talking and talking.

Good training for the scientific debates you are having today?

Exactly, it was brilliant. I was really lucky, you know, we motivated each other. Several of my siblings went to university, some are teachers today. There was a lot of mutual support and collaborative learning.

And your parents?

They supported our education a lot. They never had done more than elementary school themselves. They were from peasant families and we lived in a tiny village, our farm was just 800 meter from the German border, in between nothing but moorland. Nobody went to university there. My brother and I were amongst the first to be able to go to high school – apart from the teacher's children. These were completely different times and studying wasn't common in families like ours.

What gave you the idea to study Chemistry?

I have always been interested in how and why things work. When I was a child and teenager, I helped a lot on our farm. While we worked, we discussed various phenomena: how is it possible that a four-meter sunflower grows from this tiny seed or that things drop. I wanted to discover something – I was really into books on explorers, e.g. Humboldt and Jules Verne.

But it was my high school teacher in Chemistry and Physics who gave the decisive push. He was an amazing guy, who motivated and challenged us a lot. I had my best grades in Maths. But I loved Chemistry and the fact that you can make something, that you can see or smell something.

Was your degree programme as exciting as you thought it would be?

The first three years were sometimes a bit boring, but after that I was able to do experiments by myself, that was great. I remember how fascinated I was by Organic Chemistry, creating molecules. After three or four weeks I had built my first molecules, it was a nice white powder. My professor just said that no one in the world had created this molecule yet. It was totally useless but I was very excited.

You were excited about your discovery.

Yes, you feel a bit like an artist. No one has done that before. I did it! I think it motivated me to really work on my ideas. To discover and do new things.

Have things changed with the Nobel Prize?

Yes and no. Nothing has changed about my desire to do research. Sure I want to continue, continue to research! Because that is my passion. Like an artist or a musician you don't give up your hobby, your passion. I enjoy working with students, to support them and do crazy things. Of course it is frequently frustrating because you aren't clever enough or you're on the wrong track, or nature is smarter than you and experiments don't work out. But then there is the excitement when I get to the lab in the morning and one of my students says: professor Ben, I think I have made a discovery! It is wonderful to see these glowing faces.

And what has changed?

I see myself more than ever as an ambassador for science and education – being a Nobel laureate, people now frequently invite me. I regularly visit schools, hold presentations or lead discussions. It is fantastic to see the small kids at elementary schools already being so eager to learn. Teachers need our support because I think not everyone really appreciates how important teachers are. Starting in kindergarden and all the way up. A good teacher can

influence your entire future. I had the privilege to have a really great teacher. Today I want to give back to society: I want to be an ambassador for science.

You have achieved that: in 2017 TUM President Wolfgang A. Herrmann made you TUM Ambassador. What do you associate with TUM?

Collegiality, a great scientific atmosphere, exiting discussions. When I came here for the first time my first reaction was: this is a great place, top-level scientists work here, wow, something is happening here.

When I am at the TUM Institute for Advanced Study, I have a lot of time to talk to colleagues or PhD students or just to think. This helps a lot: having the time to think about scientific problems, develop new ideas and to discuss them with colleagues. This is what gives you a different perspective and thus new ideas.

BIOGRAPHY

PROF. DR. BEN L. FERINGA

(TUM-IAS Honorary Hans Fischer Senior Fellow since 2012, TUM Ambassador 2017)



In 2016 the Swedish King Carl XVI. awarded the Nobel Prize in Chemistry to Gustaf Ben L. Feringa.

After his doctorate at the University of Groningen in 1978 Ben L. Feringa worked at Shell for a couple of years before returning to the University of Groningen. Until today he is a professor there, builds molecular motors, teaches passionately and also takes his enthusiasm for science to elementary schools – his eyes sparkle when he talks about his students' discoveries. Together with professor Jean-Pierre Sauvage and professor Sir J. Fraser Stoddart, he received the Nobel Prize in Chemistry for the design and production of molecular machines in 2016. He regularly visits TUM in order to catch up with hosting professor Thorsten Bach. In December 2017 TUM President Wolfgang A. Herrmann made him a TUM Ambassador.



ACTRESS

MARIA FURTWÄNGLER

lateas lateminist.

The Tatort detective on studying Medicine at TUM and her worldwide work for the rights of young girls and women.

DR. MARIA FURTWÄNGLER

Maria Furtwängler grew up in a family of artists: her mother is an actress, her uncle a director, her great-uncle a conductor. As a seven-year-old she was acting in front of a camera for the first time. Having done her Abitur she however opted for a medicine degree at TUM and worked as a doctor for some time. Today, the Munich-born and raised actress is mainly know for her role as Tatort detective Charlotte Lindholm. But for her, the time at TUM wasn't a detour. Studying provided her with the affirmation, which motivates her today to support the cause of women's rights worldwide.

KontakTUM: Ms Furtwängler, are there parallels between the professions of an actress and a doctor?

Every good doctor needs a certain talent for acting. You have to know intuitively in which way the patient sitting across from you wishes to be addressed. Do they prefer someone talking to them eye-to-eye, a strict doctor or a more mothering approach. As a doctor one should act depending on what is required in that moment.

What made you study Medicine?

My mother decisively influenced this. Being an actress herself she knows very well that it is not a reliable profession. In school I was rather gifted in Mathematics and Biology, hence I was recommended to consider medical studies after having done my Abitur at the French School here in Munich. I thought that was an exciting option. I enjoyed studying medicine and working as a doctor.

You started studying in France and then changed to TUM.

I was in Montpellier for the first two years up until the Physikum (examination ending the pre-clinical stage). It was quite a traditional medical faculty. The renaissance author Rabelais studied there as well. It was very regimented: we sat through every single lecture because the lecturing professor was also the one doing the examination and marking. You didn't want to miss anything. Studying at TUM was a big change after that: in Germany it didn't matter for the time being if you attended the lecture or not because in the end you would work through the books anyway in order to prepare for the exam.

It's been a long time since you worked as a doctor: what is the significance of your academic education for you?

The contents of my degree have shaped me decisively and are still on my mind. Back then we had fantastic and fascinating teachers in Psychosomatics. I have also taken up this topic in my doctoral thesis, which dealt with women and pregnancy losses. Woman, female health and sexuality are subjects with a strong impact on me, not least as part of my work as a producer, and influence which stories I tell. Studying has grounded me and represents a good

counter-balance to the acting world, which is extremely full of self-importance. In any case, medical science was very healing for me.

Are you sometimes correcting your script writers on their representations of causes of death?

Yes, that absolutely happens (laughs). Of course I am a bit difficult about that, but hopefully also helpful sometimes.

You are investing a lot of energy in your cause of supporting young females and women. Your foundation MaLisa provides girls and young women with an exit strategy from human trafficking. What drives this commitment?

My first medical assignment for German Doctors really brought this issue to my attention. The wake-up call reached me in Calcutta in India. As a young doctor I experienced that female babies are worth a lot less there than male ones – for society but also for the mothers. This may sound naïve from today's point of view but before that I had no awareness whatsoever about my gender potentially being less valuable. I returned to Germany with these impressions and suddenly noticed that discrimination frequently is an issue here as well. Every third woman falls victim to violence and there are many forms of misogyny. I have developed a stronger sensitivity in sensing subcutaneous misogyny – also amongst us women.

How do you mean?

Us women frequently don't act in solidarity. This is because since we were born we have been conditioned to be liked by others. Accordingly we can't tolerate competitors. The motto is: the more people like me, the more valuable I am. As long as that is being hammered into us, whether they are smart or good team-players won't be a really crucial criterion for women. We have to make an effort to change that.

You have taken a first contributing step yourself: with your foundation you have commissioned a study that examined the representation of women and men in German cinema and TV.



In order to be a full-time actress she took off her white coat for good. Yet, the contents of her medical studies are still influencing her today. She says: "In any case, medical science was very healing for me."

The results illustrate in an alarming way how strongly women are underrepresented in German television and cinema. This is true for fictitious formats, as well as for informative programmes and shows. Two thirds of all central people on screens are men. Portrayed women are usually under 30 and are being shown in connection to relationships and partnerships.

Why is it so important that women appear on television and in cinema?

We have to be be aware of how powerful pictures are. Everything we see strongly influences what we are able to imagine.

We have been conditioned to be liked by others

Kind of like: "visible equals possible". There are some good examples for that: in America for instance, archery is the fastest growing sport amongst young women. And why is that? The heroine in the film series for young people "The Hunger Games" is an accomplished archer. There is another beautiful example: since many American crime series have cast a female for the role of the forensic scientist, the percentage of female forensics students in America has increased by about 75 percent. It is important that media-makers take a good look at themselves: as a matter of routine they cast men to play the medical superintendent and the pilot but this leads to a strong and incorrect definition or our mental images.

Women don't save the world?

Exactly. I can't even escape this way of thinking myself. About nine years ago I was literally shocked at myself. I was on a plane from Munich to Berlin. Suddenly a female voice came over the loudspeaker and said: Hello, this is Ms Meier, I am the pilot on your flight to Berlin." My first reaction was: "How do I get out of here?" On a purely intellectual level I knew that a woman is of course able to fly an airplane, but no mental images were available to me. In every picture book, in every Hollywood movie I had ever seen, it was always a man who guided the plane through a dangerous storm.

Your great-grandmother Katharina von Kardorff-Oheimb was a central political figure in the Weimar Republic, your mother Kathrin Ackermann is a successful actress. Have

women's rights been a matter of course for you since the day you were born?

My mother is a strong woman and has always been very emancipated. I am more of a feminist who started late, like most women unfortunately. Almost all young women feel, as did I, "I can become anything I want, there are no obstacles whatsoever in my way." But for most women the first kink appears around the age of 30 or 35. Many have their first child and suddenly realize: "Ops. Somehow the world is not such a hospitable place for women – and especially not for women who have kids."

A new webshow, which was shot end of last year at TUM is meant to motivate women and girls between age 14 and 17 to study technical subjects and thus eliminate some cliches. In the show you are playing a professor for Data Processing.

I am pleased to be able to support this cause. Especially for young women it is very important what they get to watch, as the underrepresentation is even more distinctive on kids television: only one in four characters is female. And she is either a witch, a fairy, a mother or an object of desire. But she is not an inventor, not a computer nerd and not an astronaut. But especially with regards to engineers and software engineers we have to be careful. Because these are after all the people who will programme and shape our future. We can't possibly leave this up to men alone.

Women of TUM

The TUM Family is a vivid network, bringing together the best from all the worlds and subject areas. Alumni of TUM have created the Network Women of TUM especially for women: here, female scientists, graduates and students of TUM support each other and promote international exchange.

www.together.tum.de/women-of-tum

Save the Date! On the occasion of the big Jubilee of TUM on the 12th of October 2018, the Women of TUM Talks are taking place. More information on page 75.

BIOGRAPHY

DR. MARIA FURTWÄNGLER

(PhD Medicine 1996)

Subsequent to her Abitur Maria Furtwängler studied Medicine at the University of Montpellier in France and after her Physikum changed to TUM, where she did her doctorate in 1996. After that she worked as a doctor but in the end decided to professionally fully dedicate herself to acting. Since 2002 she is playing Hannover Tatort detective Charlotte Lindholm, the role of her mother is played by her own mother, actress Kathrin Ackermann. Maria Furtwängler takes a personal interest in supporting young females and women, wherever they are subject to contempt and discrimination. The foundation MaLisa, which she has set up together with her daughter Elisabeth, provides girls and young women with an exit strategy from human trafficking. In 2003 she received the Federal Cross of Merit for her work with the aid organization German Doctors. Maria Furtwängler is married to publisher Hubert Burda and has two adult children.





FIRST DIVISION FOOTBALL COACH

MANUEL BAUM

My life is all about my family and football.

The football coach on dealing with his sudden popularity and the probably hardest decision of his career.

Originally Manuel Baum is a teacher for physical education. But in December 2016 he stepped into the spotlight: as the head coach of a first division football team he is bringing in success every weekend. His team – FC Augsburg – has been the top candidate for relegation at the beginning of this season and then delivered the best start of the season the club has ever had. A conversation with TUM graduate Manuel Baum about the desire for safety and the willingness to take risks, sleepless nights after games lost, multitasking and his family.

KontakTUM: Mr Baum, do you switch the channel when you see yourself on TV?

No, not immediately. But I barely see myself. When the games are being covered I am usually still at the stadium, on Sundays at the training or out and about with my family. I just hear from others how I come across.

Your calm and composure are frequently being praised.

Well, during the games, on the sideline I am rather emotional. But when the game is over my analytical side wins over again. I would call that my natural disposition. I approach things in a solution-based manner, free of emotions. Results and headlines don't influence me that much.

Aren't the results what football is all about?

We try to review the matches in a different way. Mainstream says: the game was won, so it must have been good. The game was lost, so it must have been bad. But for us it's about assessing objectively. Even though you have lost once, parts of the game or strategy still could have been good. If you approach the topic like that you are well-equipped for bad times, as well.

Is it difficult for you to deal with your sudden popularity?

No, in fact it's pretty easy for me. I enjoy it. Being a teacher you are used to acting in front of groups that occasionally are also critical (laughs).

Theoretically everyone can become first division coach and many people dream about it. You have done a double degree at TUM: a diploma in Sports Science with an emphasis on Economics and Management & Sports on one side and on the other Sports & Economics for Realschul – teaching. Were there any classmates who aimed at coaching a first division team?

I don't think anyone explicitly wanted to do that. Also I didn't think: "Yeah, I definitively have to do it."

Please tell us more about that.

From an early age on I played football, as a goalkeeper: first in Dingolfing in Lower Bavaria and then when I was 15

in Munich for the TSV 1860. Since then I have lived alone at a host family and went to high school in addition to that and later on started studying. When I was 18 I switched to Ismaning to the men's team and at the same time got the first offer from 1860 to be a special coach for goalkeeping there

You agreed straight away?

It was interesting for me to do both: to play and coach. For me, the question of why has always been an important one during training. I mean not just consuming contents but to understand why I had to do a run or power training. This is why I opted for diploma studies later: there it was possible to really go deep.

That means you already worked as a coach during your studies?

I did the double degree, played football in Ismaning – at that time that was the fourth-highest league, now regional league of Bavaria – and additionally had a coaching position at 1860 for the trainees. It was a pretty tight schedule.

Also after having finished your studies your life was entirely defined by football: subsequent to your in-service teaching training you went to a special Realschule in Taufkirchen – certified as a so-called DFB (German Football Federation) elite school. In addition to that you coached a third league team in Unterhaching.

Exactly, the tight schedule continued (laughs). I have always been good at multitasking. In Unterhaching, Stefan Reuter, sports manager at FC Augsburg, watched and he liked my style. That's how I became head coach at the youth training centre in Augsburg.

And finally, in December 2016 your received the crucial call?

They wanted to know if I could take over the pros. I was just on holiday with my family and first asked my wife. And then I had to fly home quickly (laughs). That's how it happened: of course a lot of luck is involved in getting a chance like this. And it is a privilege to experience what I am experiencing right now.



During the game and in his role as a coach Manuel Baum, who is usually a rational person, does get emotional as well. In all other scenarios tactics predominate: "My strategy I to approach things in a solution-based manner."

It is hard to relax. And after lost matches there are sleepless nights, as well.

Some of your former pupils are now playing on your team. Was this change of roles difficult for your and the players? I never felt that it was a problem. Rather the opposite: the players already knew me and how I operate. That in return worked in my favour because my former pupils could mediate insofar as they told other players: "Don't worry about it, that is how he always does that." And vice versa I already knew the guys, too.

The school you used to teach at had pure football classes. Was that a challenge?

As you know there are three kinds of school – middle school, Realschule and high school – and for each kind of school there is one school each in Munich with such an educational feature. There, you have training slots in the classes during which the pupils are able to go to their football clubs. And they are being taught in theory of training, sports biology and kinetics. During the in-service teaching training you are of course not being prepared for having 20 to 25 football players in your class. They need to be addressed in a particular way.

And which one is that?

Well, many kids dream about becoming a professional football player one day and many of these go to such schools. Obviously you need to communicate to the students that, despite their dream they need a proper education. If they do become pros, the players nowadays frequently stop at age 33 or 34. That means you've got to have something up your sleeve. Meanwhile I am also able to share inside stories and say: "Don't think this is going to be easy."

Speaking of something up your sleeve: at the moment you are on leave of absence from your teaching position in order to pursue coaching the team. But that is not a permanent solution. Do you have specific plans?

This year I was still able to take time off. Unfortunately I don't know how this is going to be next year. The most difficult impending decision is going to be whether I should give up my lifetime position as a civil servant in oder to coach full-time. That is really difficult, especially if you have a family. This line of business is hard to predict.

So probably: bye bye teaching?

To be in front of a class again is something I can imagine very well. Someday. But honestly, not at the moment (laughs). At the same time I am rather focussed on security, my family background is like that. The moment when it is decision time: giving it up or not? I don't want to think about that yet.

Are you the coach for 24 hours a day or are there moments in which you can relax?

I am still relatively new to this business and would like to stick around. On top of that I am a perfectionist. For me, everything in the match preparation has to be clearly planned. In football, there is tremendous stress and pressure during the match, 60.000 people are watching you. If you haven't thought through the scenarios beforehand, if you aren't sure how to react, you'll quickly start to flounder. To answer your question, it is hard to relax. And after lost matches there are sleepless nights as well. But when I get home and my two little kids are there, I can wind down quickly.

Your kids are now 3 and 5 years old and come along to each game – even in their Augsburg shirts.

The little one always comes running to me and wants to give me a kiss in front of the TV-cameras. That's really funny. They understand that I am the coach but not yet the importance of the first division. I am glad that this way, they can still grow up fairly normally.

Your wife is an Alumni of TUM, as well.

We even met when we were studying. She has studied Sports Sciences with an emphasis on Economics and Management, as well. And then in the tax law lecture we clicked (laughs). That's not the only reason why studying was one of the best times. I met so many people and built a network that exists to this date.

Are you still in touch with your classmates?

Of course, many are in the sports sector, as well. Christian Sander, for example, who is active in the rehabilitation area and managed to bring back Sami Khedira to the pitch after just 5 to 6 months when he had his cruciate ligament rupture. Or our co-trainer Florian Ernst, who studied Sports and Economics at TUM to become a teacher. Some of those are very strong bonds.

In view of the numerous additional jobs you take on – every now and then, for example you are being called in as an expert on TV – do you still have spare time?

Obviously not a lot. I try to give back a little of what I was able to experience every now and then, for example to provide insights into the professional world in a small presentation. Whenever TUM needs me for something, I am available gladly. But right now, my life is about my family and football.

BIOGRAPHY

MANUEL BAUM

(Diploma Sports Sciences 2005, Staatsexamen 2006)



Manuel Baum started his football career as a goal-keeper in Dingolfing in Lower Bavaria and joined TSV 1860 München when he was 15 years old. He had further stopovers at the FC Ismaning and FC Unterföhring. Because his father was a teacher, Manuel Baum opted for a double degree at TUM: a diploma in Sports Sciences with an emphasis on Economics & Management on one hand and Sports & Economics for teaching at Realschule on the other. He started his career as a coach at 1860 München, then moved on to third league club SpVgg Unterhaching. Eventually he became head coach at FC Augsburg's youth training centre. In December 2016 he took over FC Augsburg's professional team, with which he is very successful now. Manuel Baum is married with two kids.



UNIVERSITY DONOR

RAINER STELLWAG

From Schwabing into the world in an Isetta

The university donor loves meeting people and fostering his personal contacts. He is immensely proud of his alma mater.

Rainer Stellwag is born in Schwabing, goes to school here and eventually studies Physics at the Technical College in Arcisstraße. After that his job as a sales expert at Münchner Rückversicherung takes him all over the world – to South Africa and China, Australia and America. But his home is and will be Munich. He is now retired and keeps doing what he likes best: being with people and fostering his contacts. He frequently returns to TUM for various occasions. His alma mater's achievements impress him so much that he decides to donate part of his fortune to the TUM University Foundation.

KontakTUM: Mr Stellwag, how could your biography be summarized?

I would say: "From Schwabing into the world in an Isetta" or "Umbilical cord Arcisstraße". I was born in 1939 in the hospital at the corner Heßstraße and Arcisstaße. I went to school at Gisela-Gymnasium, which is also in Arcisstraße. And finally I started studying at the Technical College, which also has an entrance on Arcisstraße. I am still living in Schwabing.

And what is the story behind the Isetta?

The BMW Isetta! I was with her for 36 years and always drove to TUM with her – I was known for it. There was never a parking problem. I could arrive with the car at 13 minutes past the hour and still sit in the lecture hall on time at quarter past.

You studied Physics at the TH.

I always knew – either Chemistry or Physics. However, my memory is way too weak to remember all the details you need as a chemist. On the other hand I was incredibly interested in the physical laws, the logical relationships. With Professor Josef Lense, I was lucky to have a fantastic mathematician as a teacher straight from the beginning. He was an ingenious guy, close to Einstein. Physics was taught by Professor Joos. And then of course the stars of TUM: Professor Heinz Maier-Leibnitz and his doctorate student, the later Nobel laureate Rudolf Mößbauer.

Do you also still remember classmates?

I met my really close friends, a handful, when studying together at the TH. They all studied Physics and joined the Academic Singing Club Munich (Akademischen Gesangsverein München – AGM) with me. This is a student society for singing, making music and playing theatre. I am still an active member: TUM President Herrmann kept visiting us during our Rektorenkneipe, AGM's most important annual social event, in recent years and held brilliant speeches. They were highlights: it brought TUM's splendour and humour into the student society.

You first worked for IBM for a couple of years after finishing your studies, then for Münchner Rückversi-

cherung. Both times in the field sales force. A physicist becoming a sales expert; how does that happen?

I had already started to work for IBM as an intern during my studies. The office manager at the time recruited me straight after my diploma and offered me a position with a good salary and ,on the job' training, so to say. Essentially it was about consulting clients who had no or very little idea about data processing. Again and again people would be sceptical about me being able to do that as a physicist. But back then, there weren't any IT specialists yet. It was a great time for me and I learnt a lot about dealing with people and organisational problems. And by the way, the Isetta was on my side here as well: someone from big IBM showing up at a client visit in a tiny Isetta earned some smiles.

You have spent the rest of your professional life – almost 30 years – at Münchner Rückversicherung.

It took me from Munich out into the world: I was responsible for the set-up and opening of the subsidiaries' IT departments abroad. One third of my time at work I was travelling – in South Africa, in China, in Australia, America, France and England. At this stage in life, as a young man, you don't need much connection to home. Hence this was ideal and also the reason why I hadn't got married yet back then. I did however meet my wife on the job and we got married in 1993 with the Isetta as our wedding carriage.

You are retired since 1999. How do you spend your time?

To be honest: I am a major idler and dreamer and reader of newspapers. Since I am retired I simply just do what I enjoy. Not too much TV and sports, and a lot of getting together with people and fostering my contacts. I meet, for example, once a month with the former executives of Münchner Rück. And I am cultivating lively international correspondence. I am writing all my letters by hand. Our mailman is rather busy!

Do you speak several languages?

Bavarian and German of course. English and French I speak fluently. I learnt from my mother and my polyglot wife that the world opens up to you much more with the help of languages. I have always admired my mother. She was a precise, hard-working, foreign-languages-juggling woman.

After the war my father, an insurance mathematician, was in a sanatorium and my mother provided for the family. She was a secretary at the American military government, and in 1945 already she spoke fluent English, French and some Spanish.

Who took care of you when your mother was at work?

My grandmother out at Staffelsee. My grandmother was an impressive woman: strict and warm-hearted, loved literature, fine arts and regularly went to Catholic church. Ultimately I have to thank her for being a grateful, openminded christian.

You have donated 50.000 euro to the TUM University Foundation.

And there will be three further instalments, if I will hopefully live to see it.

You donate over several years?

I didn't want to be broke straight away (laughs). Over the duration of five years, I set aside a certain amount of my annual monetary inflow. It is a good feeling to be intertwined with the TUM Family in this way.

And why are you donating?

My wife and I have no children of our own and I always thought that it would be better to not just spend the money for pleasure, but to enable young people to have a similar education to the one I was fortunate to have. In the US I have seen many times how private persons and companies finance and support their universities. I think this makes sense. From its own ranks TUM has produced remarkable people and has furthermore recruited the best people from all over the world. It has brought forward innovative and successful things. That impresses me and makes me proud.

BIOGRAPHY

RAINER STELLWAG

(Diploma Physics 1965)



Rainer Stellwag has studied Physics in the early 60s at then still Technical College Munich. After his diploma he joined IBM and acquired a wide range of skills from the areas of IT, Business Administration and Management on top of his qualification. From 1969 until his retirement in 1999 he worked for Münchner Rückversicherung and was responsible for controlling the global IT activities. In 1993 he married his wife Traudl. Since December 2016 he is one of the TUM University Foundation donors. In the picture he is posing in front of the plaque listing the names of the donors, including his, in the main building of TUM.

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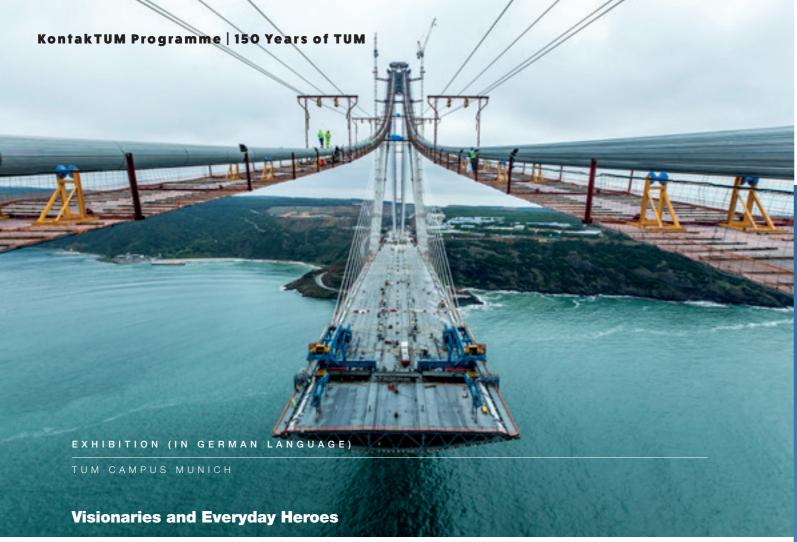


KontakTUM

Programme

For Alumni of the Technical University of Munich Spring/Summer 2018





In the German version, the cartoon character Gyro Gearloose's most famous quote is "Dem Ingeniör ist nichts zu schwör" (nothing is too difficult for an engineer). This particular occupational group, the one of engineers, is the main focus of this exhibition on the Main Campus. Being inventors, creators and entrepreneurs, engineers in civil engineering make sure that the basic needs of society are met. Immerse yourself in the fascinating history of Engineering, even if you are not an engineer yourself.

The exhibition is open to the public on weekdays, no admission fee

More information at: www.150.tum.de/event/ausstellung-visionaere-und-alltagshelden/

Time: 8 – 9 pm (Mon. – Fri.)

Dates: Fri. 06.07.2018 – Fri. 31.08.2018

PERMANENT EXHIBITION (IN GERMAN LANGUAGE)

TUM CAMPUS MUNICH

Slow Motion - 150 Years of TUM History

How do you make 150 years of university history visible to the public? Andreas Wolter and Jens Weber from the Institute of Computer Science for Architecture have compiled the documents documents of TUM's history in an extraordinary installation project and present them across 15 decades and thus as a continuous progress.

Exhibition accessible to the public on weekdays, no admission fee

More information at: www.150.tum.de/event/ausstellung-zeitlupe/

Time: 8 am - 9 pm (Mon. - Fri)

Dates: Fri. 13.04.2018 – Mon. 31.12.2018

EXHIBITION (IN GERMAN LANGUAGE)

NS-DOKUMENTATIONSZENTRUM MÜNCHEN, MAX-MANNHEIMER-PLATZ 1, MUNICH



The Technische Hochschule München under National Socialism

How was the time of National Socialism for the Technische Hochschule? The exhibition in the Munich Documentation Centre provides answers and is scrolling through a complex chapter in the history of TUM. The focus will be on changes in the teaching and research in the individual faculties and on the ideologisation and militarisation of the entire college. The exhibition has been curated by TUM Emeritus of Excellence and alumni Prof. Dr. Winfried Nerdinger (Diploma Architecture 1971), who is the founding director of the NS-Dokumentationszentrums München. On the 17th of May 2018, TUM President Wolfgang A. Herrmann will open the exhibition. In his opening speech Prof. Dr. Ulrich Herbert, contemporary historian from Freiburg, will talk about the role of universities during the Nazi-era.

Registration: www.150.tum.de/termine **Time:** 10 am - 7 pm (Tue. - Sun.)

Dates: Fri. 18.05.2018 – Sun. 26.08.2018

EXHIBITION (IN GERMAN LANGUAGE)

ARCHITEKTURMUSEUM DER TUM IN DER PINAKOTHEK DER MODERNE, BARER STRASSE 40, MUNICH

Palaces and Factories - Architecture under King Ludwig II.

King Ludwig II. has built several castles – one of them Castle Linderhof – this is well-known. Less famous are the factories or the city hall in Munich or the first TUM building by Gottfried von Neureuther, which all have been commissioned by Ludwig II. On the occasion of the 150 Year Jubilee the Museum for Architecture of TUM displays a comprehensive overview of architecture under Ludwig II. (1864 until 1886).

More information at: www.150.tum.de/event/ausstellung-koenigsschloesser-und-fabriken/

Time: 10 am - 6 pm (Tue. - Thur.)

Dates: Wed. 26.09.2018 - Sun. 13.01.2019



Alumni-Biographies

Have you always wanted to know, which celebrities have studied at TUM? The TUM Alumni Biographies on the Alumni Jubilee Website tell you about the lives of great inventors, brilliant pioneers and extraordinary visionaries. The first biographies are online already and in the course of the Anniversary Year, many more will follow. So it is worth having a look at the Alumni Websites every now and then.

www.150.alumni.tum.de/alumni-biografien

COLLOQUIUM (IN GERMAN LANGUAGE)

TUM CAMPUS MUNICH, FRIEDRICH VON THIERSCH HÖRSAAL, ARCISSTRASSE 21

E. O. Fischer's 100th Birthday

This colloquium commemorates one of TUM's most famous graduates and professors, Nobel Prize winner E. O. Fischer. TUM President Wolfgang A. Herrmann, himself a Fischer student and direct successor to his professorship is opening the event. Through presentations in connection with a small exhibition the Fischer's significance will be honoured.

Public event

More information at: www.ch.tum.de
Time: 10 am - 6 pm
Date: Sat. 10.11.2018

ERNST OTTO FISCHER

One of TUM's most famous alumni

With only one short break, Ernst Otto Fischer, Nobel Prize winner in Chemistry in 1973, has spent the whole time from the start of his studies in 1941 up to his Emeritus in 1984 at the Technical University of Munich. He was a researcher with worldwide recognition, honoured with numerous scientific and public awards, as well as a member of German and international science academies. Out of his circle of students came twelve professors and a legion of well-known industrial chemists – the so-called "Fischer School". Amongst them is TUM President Wolfgang A. Herrmann, who succeeded his professorship.

Following his doctorate he worked as a research assistant with his supervisor Walter Hieber and did research in the field of Organometallic Chemistry. Together with his colleague Wolfgang Pfab E.O. Fischer managed to make visible the structure of the just recently discovered "ferrocen". At the same time and independently Geoffrey Wilsen managed to do the same at the Imperial College in London. For this achievement both researchers were awarded with the Nobel Prize in Chemistry in 1973. Meanwhile, Fischer held a professorship at TH. In a number of ways he decisively contributed to what TUM is celebrating in its Jubilee Year – Culture of Excellence for 150 years.





In the framework of the jubilee events at the Staatsoper we exclusively offer a guided tour of the Bayerische Staatsoper for alumni. On a guided tour of the Nationaltheater you trace the 350-year-long history of the institution and are able to take a look behind the scenes. You will gain insights in the internal workflows and the every-day commitment necessary to call "Curtain up!" in the evening. The tour takes you through the Königssaal (King's Hall), the Ionischen Säle (Ionian Halls), as well as through the auditorium and with a little bit of luck you also get to explore the stage area.

Registration: www.together.tum.de/events

Time: 3 pm - 4.30 pm Sun. 16.09.2018 Date:

"After my diploma I had two job offers and thus the choice between a PhD position at TUM and a position as a lighting technician at the Bayerische Staatsoper. Deciding between Chemistry and the opera wasn't easy. That I chose the opera in the end was a combination of gut feeling and reason. At the opera I was able to perfectly combine both my passions for art and technology: as a light designer and lighting technician. Looking back, my perfect combination."

Benedikt Zehm (Diploma Chemistry 1998) was born and raised in Munich, studied Chemistry at TUM and took his final diploma exam with TUM President Herrmann. Since 1990 he is working at the Bayerische Staatsoper where he is a lighting technician and assistant to the head of the lighting department. He is responsible for the lighting at the show "Die Meistersinger von Nürnberg".



BAYERISCHE STAATSOPER, MAX-JOSEPH-PLATZ 2, MUNICH

We will publish the most interesting student

pictures online and in our next issue.

Die Meistersinger and TUM

This is what the President wished for at the TUM Jubilee: on the 27th of September 2018 the ensemble of Bayerische Staatsoper is putting on a special performance of the "Meistersinger von Nürnberg" by Richard Wagner, conducted by Kirill Petrenko - exclusively for invited members and guests of TUM. For in 1868, just after the founding of the new poly-technical college, the premier of this Wagner opera, conducted by Hans von Bülow, took place. Shortly after the premier King Ludwig II. bestowed the composer with the Bavarian Order of Maximilian for Science and Art - together with the architect and TUM professor Gottfried von Neureuther, who had designed the building for the "Polytechnische Schule".

This year the Bayerische Staatsoper is even celebrating a double anniversary: the Nationaltheater, holding the stage, which is the heart of the opera and the ballet, is turning 200 years of age. And the day on which the Nationaltheater went from the king's hands to the care of the young republic's people will mark its 100th return.

57

The anniversary festive week's motto is "Loved and Hated and Curtain Up".

Event for invited guest.

5 pm - 10.30 pm (incl. 2 x 45 minutes break)

Thur. 27.09.2018

Celebrating Worldwide

Being an international university, TUM is at home all over the world. Hence, coordinated by TUM in Munich, also its 150th anniversary will be celebrated across the globe. Alumni organise dinners for alumni in Tokyo, São Paulo, Montreal, Singapore and of course also in Munich. Wherever Alumni of TUM get together one collectively reminiscences and brings the student days back to life. Good food and drinks allow for new contacts to be made and commonalities to be discovered. Please come and join the celebrations!

A heart of fire on top of the Olympiaberg: this photo brought Thanak Utakapan (Diploma Mechanical Engineering 2012) in 4th place of the photo competition by TUM International Centre. In the background we can see the Olympic Tower, BMW World, Allianz Arena and the Church of Our Lady. With the motto "150 Years of TUM – More International Than Ever" students and employees could send in photos and also vote on the best pictures. www.international.tum.de/fotowettbewerb

During the Jubilee Year TUM is celebrating "Culture of Excellence for 150 Years":

Our alumni, who remain a part of the TUM Family for their entire lives and who are always welcome at their alma mater, make a decisive contribution to this special culture.

Dine Around the World

"I always have and will appreciate TUM's internationality. Furthermore the attitude of 'going the extra mile for science and technical excellence' has shaped me. This is why I would like to meet the other TUM Alumni who ended up here at the Upper Rhine and at the boarder to Alsace." – Dr. Gunnar Brink invites you to Karlsruhe

The Idea

One evening, 12 TUM Alumni, good food and drinks, inspiring conversations.

These could be the ingredients for a pleasant evening amongst the TUM Family. In a casual atmosphere you can meet alumni from your city, your area, your country, talk about your experience at TUM over a shared dinner, toast TUM's birthday and expand your network in a merry group of people: meet as strangers – part as friends.

If you would like to organise an anniversary dinner yourself you can become an event organiser and make your favourite restaurant, the secret barbecue spot, or your insider picnic location the TUM Family's next dinner hotspot.

Email us at international@alumni.tum.de for details and support.

Registration at: www.together.tum.de/events



Welcome -

Upcoming Events:



PEKING / CHINA 5th of May 2018, 6 pm Luo Zhihai

Dr. Gunnar Brink



KARLSRUHE / GERMANY 6th of June 2018, 7pm



MÜNCHEN / GERMANY 28th of June 2018, 6.30 pm Dr. Moritz Bürck



BERKELEY / U.S.A. 18th of August 2018, 7 pm Sebastian Schwindt PhD



SINGAPORE
21th of September 2018, 7 pm
Dr. Markus Wächter



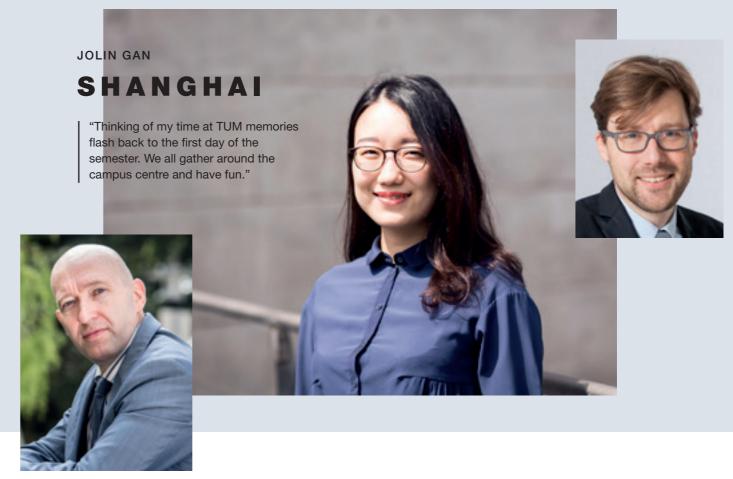
SHANGHAI / CHINA
17th of November 2018, 10 am

More information at www.together.tum.de/datw

DR. MORITZ BÜRCK

MUNICH

"For me a perfect dinner is a delicious meal with interesting interactions."



DR. MARKUS WÄCHTER

SINGAPORE

"I am excited to connect with other TUM Alumni through local Singaporean cuisine."

BEACH VOLLEY-BALL 2018

WORLD UNIVERSITY CHAMPIONSHIP

From July 9th till 13th 2018 TUM is hosting the 9th World University Championship in Beach Volleyball. Over five days, 32 male and female teams from all over the world will fight for the title. Immerse yourself in the courts' atmosphere and the young athletes' passion and support the German teams.

The matches take place at the new beach volleyball facility of TUM right in the middle of Olympiapark. 4.800 tons of sand have been distributed to 13 beach volleyball courts in total. Thus, TUM can call the biggest and most modern beach volleyball facility in Bavaria its own.

During the last World
University Beach Volleyball
Championship in Estonia
Poland and the USA left
the tournament as
winners. TUM Alumni
have the opportunity to
exclusively experience
who will be victorious in
2018 in Munich.

BEACH VOLLEYBA<mark>LL</mark>

TUM CAMPUS OLYMPIAPARK,
TUM BEACH- AND TENNIS FACILITY,
KOLEHMAINENWEG 7, MUNICH

9th Beach Volleyball World University Championship in Munich

No registration, no admission fee

More information at: : www.sg.tum.d

Dates: Mon. 09.07. – Fri. 13.07.20

Time: all-d

Exclusively for TUM Alumni

For the opening ceremony, as well as the final with award ceremony and closing ceremony 10 VIP tickets each are reserved for Alumni of TUM.

Interested?

Log in here and register for the event: www.together.tum.de/events The first ten alumni to register will receive their VIP tickets.

Opening ceremony

Time: 7 pm – 8 pm Date: Sun. 08.07.2018

Final with Award Ceremony and Closing Ceremony

Time: from 3 pm Date: Fri. 13.07.2018



Friends and Role Models

Experiencing TUM Family

Academics spend important and formative years at their alma mater. They not only make friends for life there, but also meet role models for their professional or personal path, people they will look towards all their lives. And many see their alma mater as a part of their extended family. TUM President Wolfgang A. Herrmann thinks it is important to make "university a family experience". In TUM's case, we are talking about a very large family: more than 67.000 registered Alumni and more than 40.000 students from all over the world are connected with one another in the TUM Network.



At the Career Lounges experienced Alumni start off groups on a subject matter and share their professional and private experience.

Career Lounge

CAREER LOUNGE (IN GERMAN LANGUAGE)

TUM CAMPUS WEIHENSTEPHAN

Meet Young Professionals in Life Sciences

At this event, young graduates from the Life Sciences share insider tips for planning your career in a diverse industry: which skills and additional qualifications are in particular demand? Which occupational fields offer the most potential for development?

Registration: www.together.tum.de/events

Time: 6 pm - 7.30 pm

Date: Tue. 26.06.2018

CAREER LOUNGE (IN GERMAN LANGUAGE)

TUM CAMPUS GARCHING

Personnel Selection Procedures in Practice

How do you find an employer that is the right fit for you?

Which modes of application are common nowadays and promise success?

Which personnel selection procedures are companies employing?

Here, you will have the chance to talk to Alumni who share their insider knowledge on recruiting.

Registration: www.together.tum.de/events

Time: 6 pm - 7.30 pm

Date: Thur. 05.07.2018

The programme TUM Mentoring for Students by Alumni was of benefit for **Katharina Schätz.** Her mentor was **Dr. Herbert Hoffmann** (PhD Brewing and Beverage Technology 1975).

OPEN MENTORING

TUM CAMPUS MUNICH



Giving Mentoring a Try

Are you interested in just trying out mentoring? On November 17th we would like to invite interested Alumni and students, including current tandems from TUM Mentoring to come along and network. Under the title "Open Mentoring", we offer open mentoring discussions in pairs or in small groups. Expand your network, and learn about the mentoring programme by giving it a try. In the best case, the event leads to ongoing mentor and mentee partnerships.

Registration: www.together.tum.de/events

Time: 6 pm - 9 pm

Date: Wed. 17.11.2018

"With regard to my career I have never been able to develop as much as I did during my Mentoring year, when I received top-guidance through my mentor. I would recommend the TUM Mentoring Programme to every student."



Laurin Waldmann
Master student Molecular Biotechnology

ADVICE FROM COLLEAGUES

TUM CAMPUS MUNICH

Adventure Management

A group of experts in management positions has formed amongst the TUM Alumni, and the members meet up regularly to exchange ideas and information. Inexperienced people who have only recently taken on a management position also profit from being able to talk to others with similar interests. Why not come along! Whether you want to talk about managing staff or new challenges you are facing at your every-day work life – discuss your issues with the other members. "The collegial exchange with other managers helps me to come up with new ideas. Most of all I appreciate the feedback on specific examples," says Dr. Herbert Reiter (PhD Computer Science 2010), one of the initiators of the ,Adventure Management' group.

Registration: www.together.tum.de/events

Time: 6.15 pm - 8 pm

Dates: Thur. 05.04.2018

Thur. 03.05.2018 Thur. 14.06.2018 Thur. 19.07.2018 Thur. 13.09.2018 ADVICE FROM COLLEAGUES

TUM CAMPUS MUNICH

Adventure Starting a Career

The first 100 days on a new job, the challenges of every-day work, thinking about plans for your future career – starting out in professional life a lot is new and unfamiliar. We would like to invite young Alumni in their first professional year to come and talk with other career starters. The group provides a safe space to talk about problems with like-minded people, to pass on your experiences and to develop possible solutions. You can learn from the experiences of other young Alumni from different subject areas and companies.

Registration: www.together.tum.de/events

Time: 6.30 pm

Dates: Thur. 17.05.2018

Thur. 21.06.2018 Thur. 19.07.2018 Successful Abroad: Use the TUM Career Offers to be perfectly prepared for working abroad.

<u>Internationally</u> networked

PRESENTATION WITH PERSONAL ACCOUNT

TUM CAMPUS MUNICH

Global Minds

Applying and Working Abroad

Do you want to go (back) abroad at some point – whether as a student, straight after university or even via a company? There are always opportunities to work abroad short or long-term. The event series "Global Minds" will discuss important things to pay attention to and questions that might come up. Each meeting will present a specific country: its general framework, application process and intercultural challenges.

 $\textbf{Registration:} \quad \text{www.together.tum.de/events}$



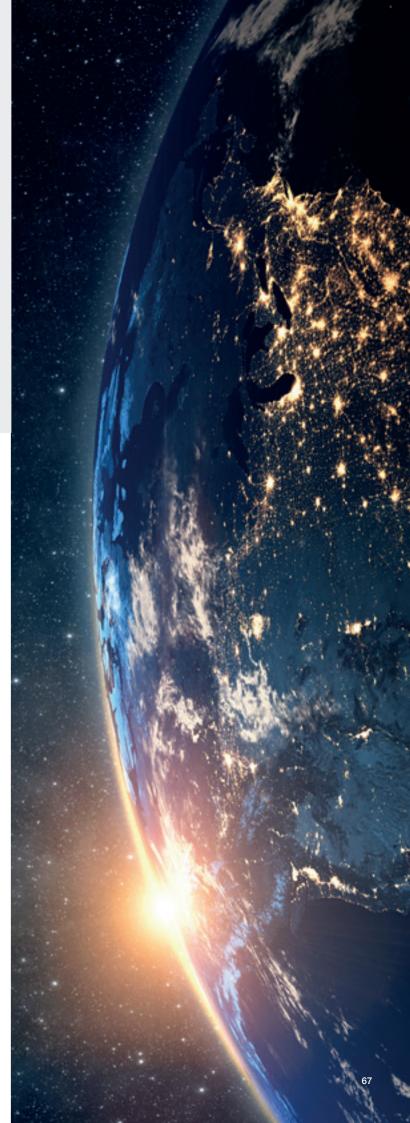
NORWAY Thur. 28.06.2018 09.45 AM - 11.15 AM



<u>USA/UK</u> Wed. 23.05.2018 1.15 PM - 2.45 PM



<u>JAPAN</u> Tue. 03.07.2018 5 PM - 6.30 PM



NEW SERIES

Eggen Champions

PANEL DISCUSSION (IN GERMAN LANGUAGE)

TUM CAMPUS MUNICH

The TUM Family is full of surprises, many ,Hidden Champions' can be found in its ranks. At this panel discussion five of them talk about their individual careers. Get to know interesting employers and family businesses you may never have heard of. Find out about unique products and entrepreneurs who left the well-trodden paths.

Registration: www.together.tum.de/events

Time: 7 pm - 8.30 pm

Date: Thur. 07.06.2018

Global Market Leaders Amongst Medium-sized Businesses

There are many so-called ,hidden champions' in the TUM Family – small and medium-sized businesses, who are leading the market in their area or industry. They are on one of the first three ranks within their industry worldwide or in first rank on their home continent.

Hidden champions' annual turnover is usually under three billion euro, and the businesses are mostly family-owned and not publicly listed on stock exchanges. Many have their headquarters outside the large cities, which is why they are sometimes also called ,pearls of the provinces'. Just like in the last winter term we will introduce you to some of the hidden champions from the ranks of TUM this summer.

Behind the scenes of AGROLAB: practically right after graduation Alumni Paul Wimmer started his company. The private laboratory group meanwhile has 20 branch offices all over Europe. From an initial core group of five people, the company has over the years grown to 1.400 employees.





Marian Musiol Head of Logistics Planning WIKA Alexander Wiegand SE & Co. KG (Master Mechanical Engineering 2012)



Heinrich Baumann COO/Managing Partner at Eberspächer Group GmbH (Diploma Electrical and Computer Sciences 1993)

Bettina Seim Vice President Sales and Marketing **HEINE Optotechnik GmbH & Co. KG** (MBA Communicate 2014)





Dr. Paul Wimmer Founder and CEO of AGROLAB (Diploma Agricultural Sciences 1985, PhD 1992)

Heinrich Baumann

"The ability to acquire facts independently and systematically is one of the fundamentals from my time as ence at TUM (Diploma 1993) and is now Managing Partner of a student, which I still rely on today. Being at the top of a company, and repeatedly taking on new tasks and projects, a definite answer to the question of The company based in Esslingen is leading the global market whether you can and want to do it is crucial - just like at university."

Heinrich Baumann has studied Electrical and Computer Scithe Eberspächer Gruppe, which is one of the world's leading system developers and suppliers in the automotive industry. in the three business divisions exhaust technology, vehicle air conditioning systems, and automotive electronics.

Dr. Paul Wimmer

At TUM Dr. Paul Wimmer turned into an "enthusiastic crop farmer" before becoming a pioneer by starting up a private laboratory for agricultural, environmental, water and food analysis. Today AGROLAB is leading the European market and has received numerous awards. Wimmer is now thinking about the next steps: "It is my dream to lead my company well into the next generation and to then have more time for my hobbies: breeding horses and the small stud I have built up."

Practically right after graduation Dr. Paul Wimmer (Diploma Agricultural Sciences 1985, PhD 1992) started his company AGROLAB GROUP laboratories for agricultural analysis GmbH in 1986 because he was missing a sense of service orientation at the governmental laboratories. In 1992 he did a PhD at the Institute for Agricultural and Horticultural Farming in the TUM School of Life Sciences Weihenstephan on the side. The private laboratory group AGROLAB meanwhile has 20 branch offices all over Europe. From an initial core group of five people, the company has over the years grown to 1.400 employees. In 2009 AGROLAB received the "Bavaria's Best 50" prize for the first time and has done so ever since. For the fifth time in a row the company was listed amongst the top 100 small and medium-sized companies.

Marian Musiol

Today, just six years after his graduation from TUM, Marian Musiol (Master Mechanical Engineering 2012) already holds an executive management position. For him the biggest challenge in managing staff was "to delegate my technical tasks to my employees and accept that they develop solutions in their own way". Because he is now focussing on deploying his employees efficiently, they can "really get rolling together".

Marian Musiol initially studied Mechanical Engineering at the Universities of Darmstadt and Grenoble and then in 2012 came to TUM to do his Masters in Mechanical Engineering. After having worked for Bosch and Siemens Home Appliances, as well as for Honeywell he joined measurement technology manufacturer WIKA Alexander Wiegand SE & Co. KG in Klingenberg. There, the passionate skier and snowboarder is the Head of Logistics Planning.

Bettina Seim

"With my employer I appreciate the possibility to make an impact. As a medium-sized company we cover everything of our business - from development, to production, all the way up to marketing - on site in Herrsching. This allows the individual employees to have a good overview of what is going on in other areas, the exchange between the departments works well, and the official channels or short, which boosts efficiency. What is more, I have personally experienced and keep seeing that smaller and medium-sized companies have a lot of confidence in their employees and systematically support them to develop."

Bettina Seim (MBA Communicate 2014) initially completed a commercial apprenticeship before studying while working at the same time: first she did a Bachelor in International Management at FOM in Munich, then the MBA Communication & Leadership at TUM. Her employer HEINE Optotechnik, global leader in the manufacturing of primary examination instruments has always supported her part-time education. Bettina Seim has been with the company since twelve years and is currently responsible for Sales and Marketing in the role of vice president.

The TUM Family is celebrating something special this year: our university is turning 150! We would like to invite you, our Alumni, to come back to campus to join us. The idea is for you to feel at home again at your alma mater on the Open House Day and the Alumni Jubilee Celebration in the evening. Meet up with your former fellow students in order to toast your alma mater's birthday together. Expect a finely tuned and exclusive programme with several hundred events taking place at the four main TUM locations and the research centres in the area. It is the people who make up a university: TUM is celebrating its 150th founding anniversary and the entire TUM Family is joining the celebrations.



Alumn Home Coming

on Saturday, 13th of October 2018

Between 11 am and 6 pm many institutes and academic chairs of TUM open their doors for you. Scientists of all disciplines present their research projects and answer any questions you may have. Return to your alma mater, experience TUM together with family and friends during a versatile programme with many events to watch and participate in. In the evening the Alumni Jubilee Celebration offers an opportunity to get together with other Alumni and fellow students to celebrate the 150th anniversary and toast your university with a glass of sparkling wine.

Dear Alumni, Dear Former Members of TUM, You Are Cordially Invited!

Our entire university life, every faculty, every institute of TUM are shaped by the people who study, work, teach and do research there. Connections, which are important for our lives and whose impact exceeds the time spent together are being made. We would like to keep those contacts alive.

On the Open House Day TUM is opening all four main sites for you! Also the research centres in Iffeldorf, Obernach and many more TUM locations are looking forward to your visit. Return to your old stomping grounds on this day and get to know other disciplines and research projects. Here you can find out everything about the latest developments in science and technology first hand. In more than 300 offers, ranging from exhibitions to guided tours, from presentations to participatory events, we will show you how research works at a university, which results are being produced and what these results can be used for. Bring your family and friends and combine a trip down memory lane with a journey into the future. The Alumni Jubilee Celebration is the ideal framework to end a beautiful day in a merry round together with your friends from university.

We look forward to seeing you again!

P. S. All Alumni who are registered in the TUM Network will receive a personal invitation including a comprehensive overview of the programme in summer. Your university friends are not part of the Network yet? Just register at: www.community.tum.de

EXHIBITION, GUIDED TOURS,

ON ALL TUM SITES

More information: www.together.tum.de/

alumni-homecoming

Date: Sat. 13.10.2018

GATHERING OF GENERATIONS AND CLASSES WITH EVENING PROGRAMME

MUNICH

Registration: with personal invitation

Time: from 6 pm

Date: Sat. 13.10.2018

A Special Offer For Alumnae

Women of TUM Talks:

I am shaping the future – we are shaping the future on Friday, 12th of October 2018

Since 2012 the Women of TUM Talks are the network meetings for female alumni, students and employees of TUM. During the Jubilee Year we invite you to Campus Garching on the day prior to the Alumni Homecoming. In inspiring lectures female presenters of all ages and disciplines – scientists, students and alumnae of TUM – give impetus for the world of tomorrow.



"Women, whose personal career was proof that a family and a career can be combined, have encouraged me not to give up but to consequently follow the path I had chosen."

WOMEN OF TUM-TALKS

CAMPUS GARCHING

Registration: www.together.tum.de/events

More information at: www.together.tum.de/women-of-tum

Time: 4 pm - 8 pm **Date:** Fri. 12.10.2018

Alumni Ticker

Since January 2018 **Prof. Dr. Oliver Ambacher (PhD Chemistry 1993)** has returned as head of the Fraunhofer Institute for Applied Solid State Physics. He already managed the institute from 2007 until end of 2016. ■ **Prof. Dr. Florian Bassermann (Habilitation Medicine 2010)** and his research team of Klinikum rechts der Isar der TUM have been awarded

the Galenus-von-Pergamon-Prize 2017 in the category Pharmacological Basic Research. ■ Prof. Dr. Sebastian Bauer (PhD Mechanical Engineering 1997) is the new president of the Industrial Cooperative Research Associations. Since 2005 he is managing Bauer Maschinen GmbH. ■ Since April 2018 Peter Beer (State Examination in Medicine 2000) is medical superintendent for General and Visceral Surgery at the Hospital Aichach an der Paar. Recently he was senior physician in Oldenburg. ■ Dr. Herbert Diess (Diploma in Mechanical Engineering 1983, PhD 1987), since 2015 chairman of the VW brand group, has been appointed the new chairman of the Board of Management of Volkswagen AG in mid-April 2018 ■ Since April 2017 Georg Dietl (Diploma Agricultural Sciences 2004), until recently teacher at Landbauschule in Almesbach, is the new head of the Centre of Expertise Cattle Farming in Cham. ■ The Regional Medical Board Hessen has awarded Dr. Brigitte Ende (PhD Medicine 1990), registered specialist in Psychiatry and Psychotherapy in Gießen-Buseck, the silver Badge of Honour for her outstanding achievements. ■ Starting with the winter term 2017/2018 Prof. Dr. Benedikt Elser (PhD Computer Science 2012) has taken on the research professorship "Big Data Applications" at Deggendorf Institute of Technology. ■ Doris Fenske (Diploma Agricultural Sciences 2000) is the new face of the show "UNKRAUT" on Bavarian TV. Until now, the editor in the department of Agriculture and Environment has occasionally been hosting the show "UNSER LAND" on the TV station BR. Lisbeth Fischbacher and Daniel Hoheneder (both Diploma Architecture 2011) received the 2017 Munich Start-Up Award by Stadtsparkasse München. With their company flissade they developed a concept for space-efficient living. ■ Prof. Dr. Roland Fischer (PhD Chemistry 1989) has been awarded the honorary doctorate for his achievements in teaching and youth development by the faculty for Philosophy and Educational Science at Ruhr University Bochum. ■ The new head of the department for Food, Agriculture and Forestry in Deggendorf is Director for Agriculture Dr. Josef Freundorfer (PhD Agricultural Sciences 1990). ■ In late 2017, Dr. Gerd Fricke (PhD Food Chemistry 2002) has been appointed Vice President of the Federal Office of Consumer Protection and Food Safety. He is heading the department of Food Safety there. ■ Rainer Goldstein (Diploma Architecture 2005) has been elected Head of Town Planning in Geretsried. Most recently he worked for the department of Urban Planning and Development in the Bavarian Ministry of the Interior. ■ Dr. Claudia Gutjahr-Löser (PhD Chemistry 2000) has been appointed Managing Director at MC Services AG's management team. She previously was the Head of Corporate Communications & Investor Relations at MorphoSys AG. ■ For the development of a sensitive robot, Prof. Dr. Sami Haddadin (Master Computer Science 2009) was awarded with the German Future Award 2017. Before following TUM's calling to the chair of Robotics and System Intelligence, he headed the Institute for Control Engineering at Leibniz University Hannover. ■ TUM's very own Dr. Georg Hartmann (PhD Chemistry 2014) and Andreas Wimmer (Bachelor Chemistry 2013, Master 2015) received the Environmental Award 2017 by Bayerische Landesstiftung for their procedure to determine nano-particles in environmental samples. ■ With October 2017 Achim Heinfling (Diploma Mechanical Engineering 1988) took over the position at the top of the Managing Board at Audi Hungaria Zrt. He previously held numerous executive positions at Audi in Ingolstadt, such as in Chassis Manufacturing, Planning, and Engine Production. ■ Since November 2017 PD Dr. Stephan Heres (Habilitation Medicine 2013) is the new medical superintendent at kbo-Isar-Amper-Klinikum München-Nord. Recently he was senior physician at Klinikum rechts der Isar der TUM. ■ Since mid-August 2017 Prof. Dr. Thomas Hofmann (Habilitation Chemistry 1998) is the new director at the German Research Centre for Food Chemistry in Freising, which is part of the Leibniz Association. He holds this position in personal union with the director of the department for Food Chemistry and Molecular Sensory Science at TUM. ■ Medical superintendent at Asklepios Medical Centre Bad Tölz Prof. Dr. Rüdiger IIg (Habilitation Medicine 2010) has been appointed extraordinary professor by TUM for his outstanding achievements in research and teaching. ■ Since October 2017 Prof. Dr. Dr. Marco Kesting (Habilitation Medicine 2009) is the new director of the University Clinic Erlangen's department for Oral and Maxillofacial Surgery. Prior to that he was Deputy Director of the clinic and of the Polyclinic for Oral and Maxillofacial Surgery of TUM. ■ In February 2018 Dr. Theo Kiesel (PhD Mechanical Engineering 2017) commenced his professorship at the Faculty of Mechanical Engineering and Mechatronics at Ostwestfalen-Lippe University of Applied Sciences. ■ Dr. Klaus Klimke (PhD Architecture 2015) has been appointed the new authorized signatory of Scherr+Klimke AG. ■ For his accomplishments in the area of production technology Dr. Stefan Krug (PhD Mechanical Engineering 2012) received the prestigious Otto-Kienzle-Medal. Since 2013 he is bearing responsibility at Siemens' electronics manufacturing plant in Erlangen for digital methods of production. In April 2018 Prof. Dr. Thomas Liebig (Habilitation Medicine 2008) changed from Charité-Universitätsmedizin Berlin to Ludwig-Maximilians-Universität and took over the chair of Neuroradiology, as well as the management of the newly installed Institute for Diagnostic and Interventional Radiology. ■ Since September 2017 Jürgen Meyer (Diploma Electrical and Computer Engineering 1991) is managing the market sector Automotive at Rohde & Schwarz. Recently he was managing the automotive division at Berner & Mattner. ■ Justus Liebig University in Gießen has granted its 2017 Röntgen Award to Munich-born radiologist PD Dr. Daniela Münzel (Habilitation Medicine 2015) for outstanding contributions in the field

Alumni Ticker

(Habilitation Medicine 2015) for outstanding contributions in the field of Diagnostic Radiology. ■ Since January 2018 Moritz Netzsch (Diploma Mechanical Engineering & Management 2013) is the new addition to Selb-based pump manufacturer Netzsch's executive board. ■ Christoph Neyer (Diploma Mechanical Engineering & Management 2012) is the new managing director at Neyer Landtechnik GmbH in Waldsee. ■ PD Dr. Harald Oberhofer (Habilitation Chemistry 2017) received Max Planck Institute's Ernst Haage Prize for Chemical Energy Conversion. He came from Cambridge to TUM for his habilitation. The senate of Karlsruhe University of Applied Sciences has elected Prof. Dr. Robert Pawlowski (PhD Civil Engineering 2006) as the new prorector for Construction and Infrastructure. Since 2008 he is professor of Structural Design, Statics and Timber Construction at Karlsruhe University of Applied Sciences. ■ Starting with November 2017 Prof. Dr. Angelika Peer (PhD Electrical and Computer Engineering 2008) changed from Bristol University to Freie Universität Bozen. There, she is strengthening the research group Automation and Robotics. InsureLab Germany has made Sebastian Pitzler (Executive MBA in Innovation & Business Creation 2014) the new executive manager. Since 2001 he has worked for ERGO in various positions. ■ PD Dr. Hendrik Poeck (Habilitation Medicine 2012) of the Medical Clinic and Polyclinic for Internal Medicine III in the Klinikum rechts der Isar der TUM, has been accepted to EMBO's "Young Investigator Programme". ■ Prof. Dr. Holger Poppert (Habilitation Medicine 2010) is the new medical superintendent of the neurological department of the Horst-Schmidt-Kliniken in Wiesbaden. Prior to that he was senior physician at Klinikum rechts der Isar der TUM. ■ PD Dr. Valentin Riedl (PhD Human Medicine 2009) and Dr. Johannes Stigler (PhD Physics 2012) both each receive the European Research Council's "Starting Grant".
Rüdiger Scheffer (Master Forestry and Wood Science 2005) is the new head of the Forestry Office Bad Sobernheim. He previously worked in the Ministry of Environment Mainz as an expert on wind energy in woodlands. Dr. Michaela Schier (PhD Geography 2005) is the new managing director of Münchner Forum. She previously managed research projects for the City of Munich, worked at the German Youth Institute and taught at the University of Innsbruck.

Christian Schlosser (Diploma Geodesy and **Geoinformation 2003)** is the new head of the Bureau for Digitalization, Broadband and Surveying in Freising. ■ In January 2018 Michael Schmelmer (Diploma Ergonomics and Economics 1995) has taken over the management of the financial department at Boehringer Ingelheim.

The Federal State and the KfW have appointed Dr. Helmut Schönenberger (PhD Economics 2005) as representative for the supervisory board of the German Energy Agency. He is the managing director of UnternehmerTUM GmbH. ■ Prof. Dr. Stefan Schönert (PhD Physics 1995) receives the popular "Advanced Grant" by the European Research Council ERC. ■ PD Dr. Andreas Schnelzer (Habilitation Medicine 2013) is the new medical superintendent at the Clinic for Gynaecology and Obstetrics at RoMed-Hospital in Rosenheim. Recently he was the senior physician and deputy director at Frauenklinik der TUM. ■ Since November 2017 Christoph Schröder (Diploma Ergonomics and Economics 1993) is BMW's new managing director of the Steyr plant in Austria. Within the company he has held various executive positions, including production manager. **Prof. Dr. Andreas Sendler** (Habilitation Medicine 2000) is the new medical superintendent of the Clinic for Surgery at the Hufeland Klinikum in Bad Langensalza. Sedler established the Interdisciplinary Tumour Therapy Centre at the Klinikum rechts der Isar der TUM and has been, amongst other things, leading the project group Gastrointestinal Tumours. ■ Dr. Thomas Spittler (Phd Electrical and Computer Engineering 2017) is the new professor for the subject Telematics in Health Care at the University of Applied Sciences Deggendorf. ■ Amongst 14 other Bavarian university lecturers, the biologist Prof. Dr. Christian Stigloher (PhD Biology 2008) has been awarded with the "Preis für gute Lehre" by the Bavarian Ministry of Science. He is the professor of Microscopy at Würzburg University.
Prof. Dr. Jörg Theisen (Habilitation Medicine 2004) is the new medical superintendent for General, Visceral, Vascular and Thoracic Surgery at Klinikum Erding. Previously he headed the department of Oesophagus and Stomach Surgery, as well as the department of Thoracic and Sarcoma Surgery at Klinikum rechts der Isar der TUM. ■ Luitpold Titzler (Master Forestry and Wood Science 2015) is the new head of the Forestry department in the Bureau of Food, Agriculture and Forestry in Waldmünchen. ■ Since October 2017 the new medical superintendent at the first-aid emergency station of Vivantes Auguste Viktoria Clinical Centre in Berlin is Prof. Dr. Andreas Umgelter (Habilitation Medicine **2009).** Prior to that he was head of the department of Hepatology and internal senior physician for kidney transplantation at Klinikum rechts der Isar der TUM. ■ Based on his scientific research and teachings, TUM has appointed Prof. Dr. Andreas Weber (Habilitation Medicine 2011), medical superintendent of Gastroenterology at Wertachkliniken, professor. Prof. Dr. Bernhard Wicht (PhD Electrical and Computer Engineering 2002) has accepted the call from Leibniz University Hannover and is heading the "Mixed-Signal Circuits Group" at the Institute of Microelectronic Systems since April 2017. ■ The European Research Council (ERC) has awarded Ms Prof. Dr. Ilaria Zardo (PhD Physics 2010) an ERC Starting Grant. Since 2015 she is assistant professor of Experimental Material Physics at the University of Basel. ■

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Ms Vice President, why are alumni important for a university?



1 | Alumni are part of the university family.

An outstanding university is also characterized by a vivid community to which all members actively contribute, are able to learn from each other and continue to mutually grow. As our ,pupils' the Alumni of TUM remain lifelong members of our university, they are an important part of the TUM Family. For us, all former members – students, employees and guests from Germany and abroad are our Alumni. As one of the first universities in Germany TUM has recognized how important an active academic community and a strong network are for the success of a university. Not least the other internationally leading universities such as Stanford, Harvard or MIT exemplify that.

2 | Alumni offer their experience.

Alumni in Germany and abroad, who are successful in the business world and in sciences offer their experience, their professional expertise and their contacts to the young academic talents and their alma mater. Here, the personal exchange between students, scientists, as well as alumni is paramount. The extensive offer ranges from Career Lounges for students with business representatives to Open Mentoring events in an informal setting. A university's alumni mutually expand their professional networks and support each other with advice and assistance. Alumni at home and abroad organise events, which allow the global TUM Network to get together and develop further.

3 | Alumni are a university's best ambassadors.

During my time as a professor at Stanford University in California I have experienced how important international alumni networks are in the USA. Here too, the alumni's achievements stand for the educational quality and confirm a the reputation of a university. For students they offer guidance with regard to choosing a university. Alumni represent their alma mater at home and abroad. For many graduates in the USA their own family represents the most important peer group, next is their sports club, and already in third place their university. This is one of the reasons why TUM is so attractive: it has a very international Alumni Network. TUM Alumni live in 139 countries around the globe but always stay connected to each other through their alma mater, irrespective of where in the world they are right now.



150 Years of TUM

150 Alumni Stories

TUM Alumni make history as well: read online about successful top-managers, creative entrepreneurs, about innovative creators and award-winning scientist – people who are fascinating and inspiring.

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