Bridging religious divides through translation
by Nicola Holzapfel

The Hebrew Bible and the New Testament were first translated into Arabic in the 8th century. Ronny Vollandt, Professor of Jewish Studies at LMU’s Institute of Near and Middle Eastern Studies, is studying this little known phase in the dissemination of the Scriptures.

For the complete article, see www.en.lmu.de/news/insightlmu/2016/01_01.pdf
Innovation – for teachers and students
by Constanze Drewlo

Studying is more than learning by rote: Even students in Bachelor’s programs at LMU can choose to do a research project or act as mentors. And LMU has once again received generous Federal funding to develop novel ideas in tuition and studies.

Helena Hager’s student research project at LMU produced one particularly surprising result. Her work demonstrated that sunscreens are not always toxic to marine organisms. They actually promote the growth of many species of microalgae – photosynthetic organisms that play an important role as primary producers and form the basis for all life in the sea.

That students have the opportunity to pursue a research project of their own early in their university careers is not unusual at LMU. Such projects are among the innovations that have been funded by Lehre@LMU, a program designed to further enhance the quality of teaching and learning at the University. The best projects receive 1,000 euros in prize money. Helena’s project was one of the winners in 2015, and she used the money to finance a trip to Brest in Brittany. “My supervisor at LMU, Dr. Sabine Schultes, put me in contact with the Institut Universitaire Européen de la Mer in Brest,” she says. And she devoted the month she spent there to further investigation of the impact of sunscreens on the unicellular eukaryotic algae that make up the microphytobenthos. “Brittany is an ideal for this research,” she says. “The beaches provide favorable conditions for my experiments, and the algae are exposed to significantly lower concentrations of sunscreen than they would encounter in Mediterranean resorts.”

But the distinctive Lehre@LMU logo also turns up in the context of many other innovative projects at LMU, such as practice-based seminars, Writer’s Days at LMU’s Writing Center, coaching sessions in the Tutor Training program TutorPlus, or in a Multiplier Program. “Of course, the standard of teaching at LMU has long been high. Nevertheless, Lehre@LMU has produced a new awareness and appreciation of the importance of teaching, and it has sparked much debate and brought about a higher degree of interaction and integration,” says Professor Martin Wirsing, Vice-President for Teaching and Studies.

Interaction and networking

Lehre@LMU is financed jointly by Federal and State grants as part of the Pact for Quality in Teaching (Qualitätsakt Lehre), which allocates funds for the development of innovative ideas in university education. Student numbers in Germany continue to rise: According to the Federal Ministry of Education, in 2005 some 37% of all qualified school-leavers went on to attend university. That figure is now closer to 50%. The Qualitätsakt Lehre is one component of the broader Pact for Higher Education 2020, which is intended to provide universities with the resources necessary to cope with the expected increase in student numbers.

One important element of Lehre@LMU is devoted to student orientation and tutoring services. The Peer-to-Peer mentoring program provides first-term students with a student mentor who pilots them through the difficult early phase. “And it really does help,” says Julianna Varga, who came to LMU from the Philippines to study Biology. “In the beginning, I had no idea how the German university system works,” she says. Her mentor, Dawafuti Sherpa, who grew up in Nepal, knows the feeling: “In my first semester too, everything was unfamiliar – the exams, the professors, everyday life on campus. In this situation, having an well informed mentor who is studying the same subject is a great help.”

LMU has received grants amounting to 23 million euros over the coming 4 years, which are ear-marked for Lehre@LMU. This is equivalent to the level of support obtained during the first phase of the initiative (2012-2016). Of course, the successful programs that have been put in place will be continued, but they will be complemented by new ones, such as self-assessments to help school-leavers choose the right program of study, and a wider range of opportunities for E-learning. “Lehre@LMU is an instigator,” as Vice-President Wirsing says. “It should generate and support new ideas, rather than simply doling out money.”

Translation: Paul Hardy
Verkostoitunut ympäri Eurooppaa – Linked across Europe
by Constanze Drewlo

Students of Finno-Ugric are not exactly thick on the ground at LMU. At present, 41 students are studying for a Bachelor’s degree in the subject. This makes exchange and collaboration – and the new project InFUSE – particularly important.

When Stefanie Eckmann is asked what she is studying at LMU, the usual reaction to her reply is “Finno-what?” she says. “And of course the next question is what I intend to do with a degree in Finno-Ugric”, she adds. Stefanie is now doing her master degree in Finno-Ugric Studies. In other words, she is learning all she can about Finno-Ugric languages and cultures. The Finno-Ugric or Uralic language family includes Hungarian as well as Finnish, Estonian and other languages of the Baltic Sea region, Saami, spoken across Northern Scandinavia and on the Kola Peninsula, and many other vernaculars spoken by minority groups in central Russia and Siberia. Their genetic relationships and contacts with other language families have always been a special interest for linguists. All of these idioms share certain features, particularly at the grammatical level, but they are generally not mutually intelligible.

According to the Federal Office for Statistics, precisely 180 students had registered for courses in Finno-Ugric at German universities in the Winter Term 2014/15 in Deutschland. In some seminars, one may find as few as 5 or 6 students. According to Stefanie Eckmann, this has one major advantage: “The relationship between students and lecturers is much more informal and personal. And that makes it much easier to put questions and ask for further explanation whenever one has difficulties understanding anything.” But there are also drawbacks, the most obvious being that one has only a small circle of people with whom one can discuss the subject. This is the reason why LMU has now initiated a new cooperative venture, entitled “Integrating Finno-Ugric Studies in Europe” (InFUSE), whose aim is to link students of the subject throughout Europe – by bringing them together annually for a week-long Winter School, for instance. The Winter School 2016, held in Tartu, was attended by students from universities in Vienna, Munich, Hamburg, Tartu, Helsinki, Turku, Uppsala and Szeged.

Winter School in Estonia

“Especially in niche subjects such as Finno-Ugric Studies, there is a crying need for collaborative educational projects such as InFUSE,” says Prof. Dr. Elena Skribnik (LMU), head of the Strategic Partnership. InFUSE is designed to provide a common curriculum for students at the universities mentioned above through cooperative workshops, E-Learning and Blended Learning programs. Each partner institution will contribute its specific expertise. The long-term objective is to develop a common Master’s course in the subject. Financial support for the project is provided by the Strategic Partnerships element of the EU’s Erasmus+ program for education, training, youth and sport.

Intensive exchanges with others in the field are also very important when it comes to exploring the professional perspectives open to students of Finno-Ugric: “Many graduates hope to pursue the linguistic aspects of the subject further,” says Madeleine Wruck (22), who is in her third bachelor semester. “But when you have the chance to talk to other students, you realize that there are other opportunities – working as an interpreter, for instance. Strikingly, everyone who studies the subject seems to know exactly why he or she chose it,” Madeleine adds.

Events such as the annual Winter School offer students new insights into the cultures and languages they have chosen to focus upon. For example, while she was in Tartu, Madeleine Wruck, accompanied by one of her teachers, visited a kindergarten in which the children speak Mari with one another. “It was marvelous for me to see that even young children in Estonia learn to speak the language of the minority Mari community,” she says. Madeleine is particularly interested in Mari, which is now spoken only by some 300,000 people. Mari originated in what is now Russia, in the region between the Volga River and Ural Mountains. Many members of the Mari community have, however, left their homeland – emigrating to Estonia, for instance – as Madeleine’s experience in Tartu demonstrates. “I find it fascinating to be able to study a language that is so very different from all the other languages in Europe,” she explains. “It would be very sad if languages like Mari were to die out. And that is another reason why I think it is important that there are people who devote themselves to Finno-Ugric languages.”

Translation: Paul Hardy
Departing from the script
by Hanno Carisius

Countdown to catastrophe: Tumor biologist Heiko Hermeking studies the factors that cause cells to disregard natural constraints and opt out of their assigned roles in differentiated tissues.
For the complete article, see www.en.lmu.de/news/insightlmu/2016/01_02.pdf

What factors enable tumors to grow? Heiko Hermeking and his team use tumor samples from patients to verify the results of their experiments.

Virology

MERS virus:
Drying out the reservoir

Researchers led by virologist Gerd Sutter at LMU Munich have succeeded in immunizing dromedaries against the MERS virus. In collaboration with teams led by Professor Bart L. Haagmans of the Erasmus Medical Center in Rotterdam and Professor Albert Osterhaus of University of Veterinary Medicine Hannover, Foundation, they have successfully tested a candidate vaccine against MERS in camels. “We have been able to show, for the first time, that our vaccine can significantly reduce the virus load in infected camels,” says Sutter. The new vaccine, MVA-MERS-S, was developed by Sutter and his team two years ago. In cooperation with researchers based at Philipps University in Marburg and the team in Rotterdam, he introduced a gene for the so-called spike protein of MERS into the genome of a weakened strain of poxvirus (MVA). The resulting modified poxvirus particles expressed the MERS protein on the surface of infected cells, and these engineered viruses form the basis of the new vaccine. Camels are the primary hosts of the virus and can transmit the pathogen to humans, who can subsequently pass it on to others. Hence, vaccination of camels against MERS virus is an obvious method of choice for the prevention of human infections. But the vaccine from Sutter’s laboratory actually turns out to another advantage: Immunization with MVA-MERS-S simultaneously protects camels from camelpox, a disease similar to smallpox in humans – which can be life-threatening in dromedaries. “MVA-MERS-S can, of course, also be used to immunize humans. Indeed, thanks to the tests carried out so far, the vaccine already meets many of the most important preconditions that must be fulfilled prior to its use in clinical trials in humans. Gerd Sutter is currently leading a project at the German Center for Infection Research, which is designed to set the scene for the first such tests of the vaccine in humans.

Harbingers of aging

The aging process is accompanied by characteristic changes in physiology. In particular, the overall level of metabolic activity falls, and errors in the regulation of gene activity become more frequent. A study led by Axel Imhof (Professor of Molecular Biology) and Andreas Ladurner (Professor of Physiological Chemistry), has now investigated such age-dependent changes in middle-aged fruitflies (Drosophila melanogaster). “In aged animals, many of the potentially relevant physiological operations no longer function optimally, which makes it difficult to analyze their interactions. Therefore, we investigated Drosophila on the threshold of old age”, Imhof explains. The scientists made the surprising discovery that middle-aged flies consume more oxygen than younger animals. This finding points to a metabolic readjustment – and indeed, the researchers noted a rise in the concentration of acetyl-CoA, a mitochondrial metabolite that participates in a large number of processes in energy metabolism. Furthermore, it is an important source of acetyl groups for the chemical modification of proteins. “Our experiments have shown that in middle-aged flies many proteins are more likely to be acetylated”, Ladurner says. Strikingly, this is true not only for proteins involved in basic metabolism, but also for proteins that are directly responsible for regulating gene expression. Taken together, the findings indicate that changes in acetylation may be a key factor that links age-related changes at the metabolic and genetic levels. The researchers are now planning to look for comparable effects in mammals. If they uncover analogous phenomena, the enzymes involved might be interesting targets for the development of novel therapeutics.
Microbiology, Chemistry, Human Genetics. Ahmad Al-Nabulsi counts off his list of subjects. It’s mid-morning on a Friday, and the lecture in Microbiology has just ended. This morning, as every morning, he was up by 5 o’clock, and has made the journey to LMU from the refugees’ hostel in Moosburg. Later today he has a language course to attend, and it will be late in the evening before he gets back. “Of course it’s a hassle, but it’s better than just sitting around doing nothing,” he says, with a wry laugh.

No one would guess from his expression and demeanor that Ahmad is one of the multitudes of people who have fled one of the most bitterly fought civil wars of modern times. He comes from Dara’a, a city in the extreme south of Syria, where the first protests against the Assad regime erupted in 2011. No less than 18 of his 20 closest acquaintances have lost their lives since the conflict began, he says. Ahmad himself spent three months in prison, because he had taken part in protests against the government led by Syrian president Bashir Assad.

In 2013 he decided to flee the embattled city of Dara’a. His odyssey lasted for three months: He made his way to Turkey on foot, and from there he got to Italy, and later to Austria. On his arrival in Germany, he got different jobs. But what he really wanted to do was to take up his studies again, although this seemed like an impossible dream. Ahmad’s command of German was inadequate, and his application for political asylum is still under review. “But then LMU came up with its Preparatory Program for Refugees,” he says. The program offers courses designed to equip refugees like Ahmad with the knowledge and skills required for enrollment in a full-time degree program at a German university. It thus provides those who do not possess all of the qualifications necessary for matriculation as a regular student with the opportunity to attend lectures and seminars – for which they receive academic credits – and it includes language lessons. “By next year, I hope to be able to speak German well enough to apply for a place in the program in Dental Medicine,” Ahmad says. In the meantime, he is delighted to have the chance to focus on learning again. “The brain needs nourishment too,” he says.

Refugee students – New beginnings at LMU
by Constanze Drewlo

Samar was working on her thesis when her house in Damascus was hit by a bomb. Ahmad Al-Nabulsi was at dental school when he was imprisoned for joining a protest against the government. Both are now starting over again at LMU.

Ahmad is studying Biology and fellow-student Samar Shammas is now writing the last chapters of her doctoral thesis.

German-Syrian exchange

Samar Shammas is another of those who have come from Syria to Germany – simply because she currently cannot see any prospects of a future for herself in her homeland. “All I really need is a chair and a table – and books,” Samar says. But at home in Damascus it became increasingly hard to find the books she needed. Her own library was destroyed when a bomb hit her home. And the reference libraries which are so essential for every doctoral candidate have all been closed. She was rescued from this impossible situation by the award of a fellowship from LMU’s Graduate School “Distant Worlds”, and is now writing the last chapters of her doctoral thesis at LMU. This fortunate turn of events was facilitated by the fact that Syrian universities have long enjoyed good relations with their counterparts in Germany. “And Germany is one of the very few countries in Europe which still maintains close relationships with researchers in Syria,” she says. Samar’s thesis advisor in Damascus drew her attention to the fellowship program and put her in contact with Professor Adelheid Otto at the Graduate School. With the fellowship assured, she was able to obtain a visa that enables her to work and study in Germany.

For the majority of refugees, however, the path to acceptance as a full-time student at LMU is likely to be rather more complicated than in the cases of Samar and Ahmad. Refugees who have already been registered in a different member country of the EU run the risk of being deported – even if they possess the qualifications for entry to university. Take the case of a refugee who arrived in Germany via Bulgaria – and informed his LMU professor that he had been tortured there. Nevertheless, he could still be sent back to Bulgaria there at any moment. Academics at LMU support his wish to study here, and are now doing all they can to ensure that he gets the chance to do so.

Translation: Paul Hardy

www.lmu.de/information-for-refugees
**In Short**

**ERC Grants: Five new projects at LMU**

In the latest round of applications for European Research Council grants, five of the coveted Starting Grants have gone to LMU researchers. Each of the awards is worth approximately 1.5 million euros, and winners are selected on the basis of their research record and the quality of the planned project. Furthermore, LMU now offers the option of appointment to a Tenure Track Professorship (W2) to successful applicants for ERC Starting Grants. Two of the successful proposals were submitted by Dr. Ralf Jungmann of the Faculty of Physics and Professor Markus Paulus of the Faculty of Psychology and Educational Sciences. The other three winners, Dr. Daniel Braun (Faculty of Medicine), Dr. Chiara Franceschini (Faculty of History and the Arts) and Dr. Philipp Stockhammer (Faculty for the Study of Culture), have moved to LMU to carry out their projects here.

[www.mmt.bwl.lmu.de](http://www.mmt.bwl.lmu.de)

**New Master’s program: Data Science**

The new Master’s program in Data Science is the first of its kind in Germany that combines the disciplines of Statistics and Informatics. The reason for the interdisciplinary orientation of the program (which will be given in English) is that competence in Data Science requires knowledge of both the techniques used in the statistical analysis of data and their numerical implementation in digital networks, as well as skills in data management. The new program will focus on ways and means of extracting from the ever-increasing flood of digital data useful information that is relevant to decision-making. Students will also be taught how to apply their new knowledge and skills to real problems. Participation in a practical module, in Summer Schools and in the learning module on Data Ethics and Data Security will familiarize them with the challenges posed by big data. The new Master’s program, which is financially supported by the Elitenetzwerk Bayern, starts in the Winter Term 2016/17. The program is coordinated by LMU, and the Technical University of Munich, Augsburg University and Mannheim University are partners in the venture.

[www.ifi.lmu.de/aktuelles/nachrichten/datascience-lmu](http://www.ifi.lmu.de/aktuelles/nachrichten/datascience-lmu)

**DAAD Laureate Herta Alejo**

Peruvian Herta Alina Alejo Santos came to Munich as an au pair in 2008, learned to speak German, and ultimately matriculated at LMU to study Phonetics. In her Bachelor’s thesis, she showed that children who have just started school are already capable of making very deliberate use of intonation for particular purposes. Her academic supervisors at LMU, Dr. Conceição Cunha and Professor Jonathan Harrington, were so impressed by her research work that they nominated her for the DAAD Prize. This award honors foreign students who have an outstanding record of scholastic achievement and are actively engaged in serving the wider community. Even during her studies, Herta remained committed to improving the lot of disadvantaged youngsters at home in Peru, and she continues to contribute to their welfare. In Munich, Herta teaches German at a school for children with special needs and is also actively involved in LMU’s Peer-to-Peer Mentoring Program. When her studies are complete, she wants to work with refugees.

Any questions or comments? [insight@lmu.de](mailto:insight@lmu.de)