



International Office
University of Bayreuth

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2015

40 Jahre Universität Bayreuth

International Alumni News University of Bayreuth

Issue I/ 2015

“德中经济与科学合作”拜罗伊特大学中国校友会



Alumni Event in Shanghai



Table of Contents

Bayreuth International University News

Alumni Event in Shanghai 3

A Successful Partnership4

The Bayreuth International Summer School 2015 5

41 Years Ago: The Foundation Stone is Laid
for the 7th Bavarian State University 6

„Yes, we are open!“ 7

Research at the University of Bayreuth

What Psychological Factors Steer Someone
Towards an Eco-Friendly Lifestyle? 8/9

Bayreuth Structural Biologist becomes
the Recipient of the renowned Ludwig-Schaefer Award 9/10

Zebrafish Nerve Cells in the Test Tube 10/11

Network News/UBT Events

Discover our Web Portal12

German & Chinese Cooperation in Economics and in Academia

2nd Alumni Event at SISU in Shanghai, China



Prof. Dr. Zhang Honglin

On 21st March 2015, a second alumni event was held by the Bayreuth International Alumni Network for Former Researchers and Students on the SISU campus.

The long-standing and fruitful cooperation between UBT and SISU, in staff and student exchange, joint research and provision of dual programmes of study, made Shanghai the ideal location for the University of Bayreuth's Alumni Network to establish its Chinese hub. The Chinese Alumni Network came into existence in September 2009 on the SISU's campus, with the help of the university's German Studies department. At the opening ceremony for the project, Prof Dr Jiang Lulu, moderator of the dual programme "German/Economics", was named as network coordinator for China.

Looking back upon happy memories of the Chinese network's opening festivities, the University of Bayreuth decided to make plans for a second alumni event, this time centred on "German-Chinese Cooperation in Economics and in Academia". On the programme were such topics as "Trends and Careers in the German-Chinese Economic Landscape" as well as „Trends and Careers in the German-Chinese academic and science Landscape.“ Das Programm beinhaltete die Themen „Trends und Karriere im deutsch-chinesischen Wirtschaftsraum“ sowie „Trends und Karriere im deutsch-chinesischen Wis-

senschaftsraum“. A range of informed personalities were present and able to provide insight into and spark debate on these themes, including Ms Zhang Qianqian, project manager at the foreign chamber of commerce for China, Ms Susanne Günther from the DAAD (German Academic Exchange Service), Mr Alexander Prautsch, alumnus of the University of Bayreuth and financial adviser to PwC China and Dr Guido Rösler. Prof Zhang Honglin, head of SISU's international office, Prof Dr Chen Zhuangying, vice dean of the German Studies Department and Dr Heinemann, head of the University of Bayreuth's international office, all gave welcoming speeches. The alumni themselves also had the chance to speak about their own unique career pathways. More than 50 alumni took the time to reflect together on their private and work lives after their time at university, as well as of course to indulge in some nostalgia about good old times.

You can find more information about the event on our website: <http://www.international-alumni-forum.uni-bayreuth.de/>

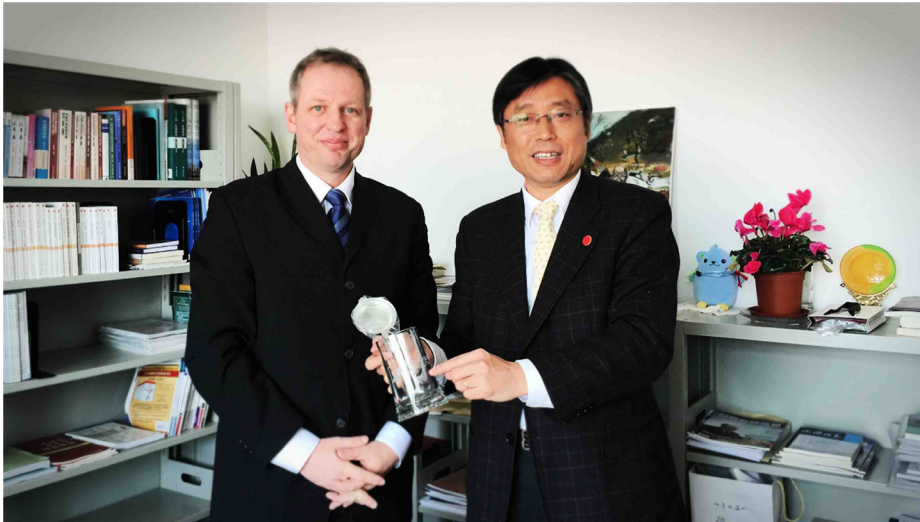
Source: SISU, Shanghai
(The author is currently studying in her 4th year at the SISU German Studies Department)



Dr. Armin Heinemann, Head of International Office
University of Bayreuth

A Successful Partnership with the Shanghai International Studies University (SISU)

Development of the “German/Economics” joint degree programme



Dr. Jiang Feng, SISU und Dr. Heinemann, University of Bayreuth

Early in the day on the 21st March, on SISU's Hongkou campus, Dr Jiang Feng, president of the Shanghai International Studies University (SISU), met with Dr Heinemann, head of the University of Bayreuth's international office and representative of its president. They reflected upon the successful partnership between the two institutions in providing a “German/Economics” joint degree programme and discussed the future direction the cooperation should take.

The joint programme, first planned in the 1980s and finally established in 1999, has over the more than 10 years since seen a great number of graduates with both excellent German proficiency and profound economic know-how, able to slip seamlessly into careers both in Germany and in China. The programme's success led in early 2015 to it receiving the official seal of approval for joint domestic/international degree programmes from the Ministry for Education.

This was much to the delight of the Dr Heinemann, head of the University of Bayreuth's international office, who also has high hopes for the future development of the programme. Students on the pro-

gramme will soon receive a Bachelors qualification from SISU and from the University of Bayreuth. Further cooperation in the provision of the masters level programme was also discussed.

SISU president Dr Jiang Feng also took the opportunity to introduce SISU's research work in Islamic and Middle East Studies. Dr Heinemann also talked about one of the University of Bayreuth's specialisms, namely African Studies, for which it stands at the forefront of academia in Germany and Europe. Both parties were adamant that further cooperation is on the cards.

Source: SISU, Shanghai
(The author is currently studying in her 4th year at the SISU German Studies Department)

4th Bayreuth International Summer School 5 - 18 July 2015

The Bayreuth International Summer School 2015 consists of three individual courses, each one specialized in a different area of study and research. All courses are conducted in English by international guest lecturers and will take place for a duration of two weeks. Participants will have the opportunity to theoretically and practically engage in various seminars and discussions for approximately 6 hours each day.

Detailed course fees can be found within the particular tabs.

Please see the following BISS 2015 Brochure for a short survey of course areas and conditions:

<http://www.summerschool.uni-bayreuth.de/resources/Flyer-BISS-2015-2-Seiten-.pdf>

WE ARE LOOKING FORWARD TO SEEING YOU IN BAYREUTH!



SUMMER SCHOOL

05 - 18 July 2015 in Germany,
Universität Bayreuth

Course programme

COURSE 1
New Perspectives on Economic Growth and Development
- the Impact of Globalisation on Management

COURSE 2
Novel Materials and Technologies for Future Energy Systems

COURSE 3
Specters of Violence in Africa and Latin America
- Looking behind the Scenes

For your application or questions, please contact us at:
summerschool@uni-bayreuth.de
www.summerschool.uni-bayreuth.de

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INTERNATIONAL UNIVERSITY NEWS

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41 Years Ago: The Foundation Stone is Laid for the 7th Bavarian State University

The University of Bayreuth celebrates 40 years of teaching and learning this year



Photos: Bayreuth University Archives

41 years ago, on 23rd March 1974, in the presence of Bavarian Minister President Dr. h.c. Alfons Goppel, Minister for Culture Prof. Dr. Hans Maier, church council chair Dr. Hugo Maser, dean and spiritual council chair Georg Schley, Mayor of Bayreuth Hans Walter Wild, university structural committee chair Prof. Dr. Wolfgang Wild, founding president of the university Dr. Klaus Dieter Wolff, hundreds of guests of honour and thousands more onlookers, the foundation stone ceremony took place to mark the beginning of work on the seventh Bavarian state university.

The stone was the beginnings of the first new building (the joint sciences building) to spring up on the site of today's campus, following the founding of the University of Bayreuth on 1st January 1972. A metal casket containing the foundation stone certificate, the blueprints for the joint sciences building, magazines and coins was encased in the stone, which lies buried in the foundations of today's "GEO 1" building.

The Bavarian Minister President of the time, along with the traditional three strikes of the hammer to the freshly-laid stone, spoke of the university's goal to become a "place of true academic prowess, of unconstrained yet responsible teaching and research". The minister for culture expressed the importance of the creation of new student places in reducing the pressure in the more southerly universities of Erlangen-Nuremberg and Munich. The founding president of the university, Dr. Wolff, took the foundation stone as symbolic of the "fundamental character of

academic work, of the cooperation between researchers and students and of the freedom of academia and science [...] on their never-ending quest to uncover truth."

The laying of the foundation stone was also celebrated by a reception organized by the Minister President in the New Palace, as well as a much larger celebratory event with brass band and food in front of the town hall, thus sharing the historic day with the wider population of Bayreuth. On 3rd November 1975, 1 year after the construction celebration on 16th October 1974, the first teaching finally took place at the university. The official opening took place on 27th November 1975.

This year marks the 40th anniversary of the start of teaching at the University of Bayreuth, giving rise to a range of public events and a planned anniversary publication. In order to allow at least part the festivities to take place outside, some of the events are not scheduled until July 2015 (17th, 18th, 19th July 2015)

Original version (in German): Press release 046/2015 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2015/046-Grundsteinlegung-UBT.pdf>

Translation: BIAC

'Yes we're open – Willkommen in Deutschland'

Touring exhibition opened its doors on 10th March 2015 – with the University of Bayreuth as a local partner.

From the 10th March to 4th April 2015 it was the turn of the Bayreuth City Library (RW21) to play host to the touring exhibition “Yes we're open – Willkommen in Deutschland”. Alongside state secretary of parliament Anette Kramme from the Federal Ministry for Work and Welfare, the university's president Prof. Dr. Stefan Leible also addressed the opening ceremony on 10th March 2015. “It gives me great pleasure to see the University of Bayreuth, which itself welcomes many international researchers and students with open arms, cooperate on this project. The exhibition is an important tool to ensure the continuation of a welcoming and open attitude in the region”, explained Prof. Leible.

The University of Bayreuth is an important component of the regions capacity to welcome foreign guests, with a thriving, global campus and a reputation as an international centre of university research. The institution offers students, academics, researchers and their families the full range of services needed to help them settle into life in Germany, as well as a careers service, dovetailing seamlessly with the services offered by the City of Bayreuth itself.

The University of Bayreuth is one of the exhibition's local partners

“Stammtisch” at the Bayreuth restaurant “Oskar”: On the last Wednesday of every month, the Welcome Centre holds a pub evening for its guest academics as well as for other residents of Bayreuth, providing an opportunity for these two groups of people to get to know one another.

Trips: Each month, the Welcome Centre organizes cultural events for international guest scholars and other Bayreuth residents. A wonderful opportunity to get to know the region around Bayreuth, its people and its cultural highlight, as well as make new acquaintances. The trips are organized by the University of Bayreuth Welcome Centre.



For more information, please visit:
www.welcome-centre.uni-bayreuth.de

About the Exhibition: “Yes we're open – Willkommen in Deutschland”

Germany is among some of the OECD countries with the least amount of “roadblocks” preventing the immigration of qualified workers. Against a backdrop of demographic upheaval, Germany welcomes the brightest minds from around the world with open arms – precisely because they are the key to ensuring a stable and prosperous future for the whole of our country. Their wide-ranging skills and ideas are a breath of fresh air for our economy and our way of life. “Yes, we're open! – Willkommen in Deutschland” shows of Germany's commitment to an open, globalized future and underlines why, despite the challenges, living alongside those from other backgrounds is so valuable. Displays, interactive installations and films bring the reality of a successful welcoming society of immigration and integration to life. The exhibition has been on tour through Germany since April 2013. Entry is free of charge.

www.yes-we-are-open.info

Original version (in German): Press release 046/2015 of the University of Bayreuth, http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2015/038-Ausstellungseroeffnung-Yes-we_re-open_10032015.pdf

Translation: BIAC

What Psychological Factors Steer Someone Towards an Eco-Friendly Lifestyle?

An empirical study is set to research the effect of ecological knowledge and attitudes to the natural world on individual behaviour

Which intellectual and emotional tendencies do we need to encourage in order for people to make the effort to lead a more ecologically sustainable lifestyle? This is the question asked by an international research group at the University of Bayreuth led by Prof Dr Franz Bogner, in their study, published in the journal "Environment and Behaviour". The study is based on the concept that the possession of several interdependent skills gives one a disposition to achieve a range of distinct ecological "benchmarks", as well as to make active steps towards an eco-friendly lifestyle.

This empirical study represents a cooperative effort between the University of Bayreuth, the Otto-von-Guericke University in Magdeburg and Berkeley University in the USA. It aims to look more closely at some of the fundamental assumptions made in our research of the link between ecological knowledge, attitudes to the natural world and actual individual behaviour – assumptions which have formed the basis of the widely accepted psychological model in this field. The survey conducted was taken by around 1,900 school children between class 6 and 8. It was particularly important to define "Ecological Knowledge" more precisely for the purposes of this survey: knowledge of the interrelations and processes in the environment (such as an awareness of the effects of greenhouse gases for example) is not the same thing as knowledge of particular behaviours (such as the disposal of batteries), nor is it the same as knowledge of efficiency (an example being energy-usage).

As was shown by the empirical analysis, ecological knowledge on its own does not provide a sufficient foundation for the leading of an ecologically-friendly lifestyle. A much more powerful driving force is actually the individual's view of the natural world – this was particularly clear in the school survey group when they described their behaviour or views in relation to animals or to aesthetically impressive



Prof. Dr. Frank X. Bogner

structures in nature. The survey also clearly showed a link between a positive attitude to nature and a knowledge of environmental systems. "Either a love of nature makes someone feel the need to learn more about its intricate systems processes, or this happens the other way round, i.e. such knowledge serves to strengthen an individual's affinity to the natural world", explains Prof. Bogner.

It came as somewhat of a surprise for the research group when they found that, although a positive view of nature did raise the will of the individual to live an eco-friendly life, it did little to influence their knowledge of associated practical behaviours. It seems that this love of nature only actually brings with it a very weak desire to learn about the practical ways of making the "eco-friendly dream" a reality. This was not the only thing unexpected that came to light: this tendency to actual eco-friendly behaviour seemed to do hand in hand with a knowledge of efficiency-related topics. Those people that know the theory of how to save energy and fossil fuels are more likely to actually apply their knowledge in everyday life.

Although the surveyed schoolchildren seem to take more practical notice of their theoretical ecological

knowledge than past studies implied, there is still a long way to go. The research group suspects that the lack of clear links between theory and practice within the survey questions could have caused this. A further reason could be that some of the children may have viewed some of the knowledge-related questions as not being relevant to practical application, particularly as they themselves, due to their ages, may not be in possession of a great deal of life experience. Prof Bogner concluded that: "This study gives us the motivation to continue our quest to find

the most realistic model of the emotional and intellectual characteristics required for an individual to lead an ecologically-friendly lifestyle. The results will be of great use in planning curricula for environmental education".

Original version (in German): Press release 022/2015 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2015/022-Studie-oekol-Lebensweise.pdf>

Translation: BIAC

Bayreuth Structural Biologist becomes the Recipient of the Renowned Ludwig-Schaefer Award

Congratulations! In recognition of his research on allergens and antibiotics, Prof Dr Paul Rösch, head of the University of Bayreuth's Department for Biopolymers, Business Director of the Research Centre for Bio-Macromolecules (BIOmac) and co-founder of ALNuMed GmbH (food analysis), received the Ludwig Schaefer Award. This renowned prize awarded by the Columbia University (NY) honours the scientific contributions of the Bayreuth researcher on allergens and antibiotics.

The Ludwig Schaefer Award goes to Prof Dr Rösch and his research group for their work on the structural biology of the formation of allergies and the development of new antibiotics. Over the past few years, the group have made considerable contributions to the identification of the physical structure of protein and nucleic acid using nuclear magnetic resonance (NMR).

The prize is awarded annually by the medical faculty of the elite Columbia University College for Physicians and Surgeons in the USA. Each year, two American and two non-American scientists are chosen to receive the award in recognition of outstanding contributions to research in human physiology. The Columbia University, situated in the heart of New York, is a member of the Ivy League of elite US universities and is one of the most renowned institutions in the country. The Ludwig Schaefer Award comes with a prize of 250,000 US Dollars.

The Bayreuth Scientist

(Bildunterschrift S.1) Prof Dr Paul Rösch in the NMR room at the University of Bayreuth's Research Centre for Macromolecules

Prof Dr Paul Rösch studied physics at the Universities of Karlsruhe and Heidelberg, completed doctoral studies and postdoc work at the University of Heidelberg and spent many years working at the

Heidelberg Max Planck Institute for Medical Research. In 1990, he was awarded the professorship of the Department for Biopolymers at the University of Bayreuth. For over 40 years, he has been working on the applications of physical methodologies in biological research and is one of the pioneers of NMR-based structural biology.

Allergen Research

A few months ago, Prof Dr Rösch and his research group made another scientific breakthrough in allergy research: they were able to prove that the main allergens in birch pollen and related allergens are convergences of a particular class of molecule present in many species of plant. This allowed them to show, for the first time, that this family of proteins is of great physiological importance and plays a central role in plant development. The work of the Bayreuth research group has also opened doors to new methods of allergy therapy.

(Bildunterschrift S.2) Diagram of the Birch Pollen Allergen with the physiological ligands marked in red. The interaction between ligands and proteins is crucial for the physiological function of the allergen.

Development of New Antibiotics

The second important area of research that Prof Dr Rösch's research group works in is the development of the fundamental theoretical basis for the creati-

on of new antibiotics. A central part of this is research on the proteins needed for bacterial reproduction and that control the bacterial life cycle. In cooperation with US-American scientists, the group has also made great leaps forward in this area, discovering unexpected signal pathways and control mechanisms within bacteria.

Research Centre for Bio-Macromolecules (BIOMac)

The Research Centre for Bio-Macromolecules (BIOMac) is a central scientific institution of the University of Bayreuth. BIOMac brings together researchers from the fields of biochemistry and biophysics and offers them the infrastructure required to carry out their work. BIOMac is a member of the European ARBRE-Network of large apparatus centres for structural biology.

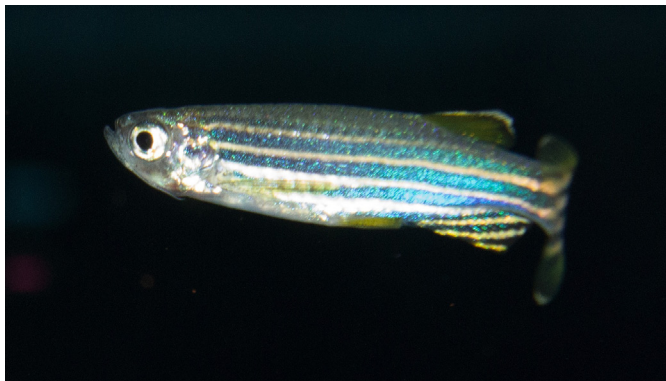
BIOMac's work centres on research of medical or technical importance, as well as high-level spectroscopic analysis of food. Along with the North Bavarian Centre for High-Resolution Core Resonance (NZN), BIOMac administers and internationally-renowned centre for structural biology, which was founded by the Universities of Bayreuth, Erlangen-Nürnberg and Würzburg. The NZN possess what is currently the world's most powerful core resonance spectrometer.

Original version (in German): Press release 005/2015 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2015/005-Ludwig-Schaefer-Award-fuer-Prof-Dr-Paul-Roesch.pdf>

Translation: BIAC

Zebrafish Nerve Cells in the Test Tube

An efficient methodology that contributes to the progress of “in-vitro” research on the regeneration of nerve cells.



Zebrafish



Zebrafish in an aquarium in the Department for Animal Physiology at the University of Bayreuth.

The ability to regenerate or replace large amounts of human nerve cells is a goal being worked towards in countless medical laboratories around the world. Zebrafish are of particular interest. The reason? They have the unusual ability to build new nerve cells and use them to replace dead or damaged ones. It would be a great help for neurological research if this phenomenon could not only be observed in living zebrafish, but also be reproduced and researched in a test tube. However, all the methods used up until now to grow artificial Zebrafish nerve cell cultures have proved to be both labour intensive and time

consuming. On top of that, attempts to standardise these cell cultures in order to simplify comparison of results have been largely unsuccessful. Even fluorescence-activated cell sorting (FACS), an established methodology in microbiology, has not been able to produce the desired results.

In “Scientific Reports”: A new application for a tried and tested method

With the help of another established methodology, it has been possible for a research team at the Uni-

versity of Bayreuth's Department for Animal Physiology to grow large cultures of zebrafish nerve cells suitable for the study of their reproductive and regenerative properties. A group of researchers led by Prof Dr Stefan Schuster have, for the first time, used magnetic-activated cell sorting – widely known under its patented name “MACS” – on zebrafish nerve cells.

Magnetic particles allow fixed-function stem cells to be removed

To start with, a cell culture is formed from mixed, sterilised zebrafish embryos. This cell culture contains a wide variety of cell types, including so-called “neurone pre-cells”. These are undeveloped nerve cells produced by neurone stem cells. These are, in contrast to pluripotent stem cells, already destined for a certain function, such as the brain or the spinal cord, and are thus referred to as fixed-function stem cells.

Neurone pre-cells are characterised by a molecule named “PSA-NCAM”. This is what led the Bayreuth scientists to identify these as an appropriate starting point for the MACS process. They injected tiny magnetic particles (MicroBeads) into the cell culture, which had been prepared with a coating of special antibodies. These antibodies then “recognised” the PSA-NCAM molecules and formed a chemical bond with them, meaning that the magnetic particles then also became attached to the neurone pre-cells. The next stage was to pass the cell culture through a tower-shaped container surrounded by a strong magnetic field, meaning that the neurone pre-cells, and only the neurone pre-cells, remained trapped in the container while the other cells passed through. This process allowed for the production of large cell cultures in the laboratory, which could then be allowed to develop into fully-functional nerve cells.

Quick and Cost-Efficient

A promising new method for biomedical research

“The application of the MACs process for pre-cells of zebrafish that we have devised and tested has proved to be both time and cost-efficient”, concluded Georg Welzel, who carried out the experiments. “Time-consuming manual work is now only necessary in acquiring the zebrafish embryos themselves that are used to form the initial mixed cell culture. The subsequent extraction of neurone pre-cells is

now automated to a great extent”.

Prof Schuster expresses optimism that this method will be put to a wide range of uses in future: “This research opens up promising opportunities in neurobiological and biomedical research, where it will hopefully soon be possible, in a better fashion than it is today, to regenerate human nerve cells or replace them entirely”. A further step could, for example, be to use the MACS method again on the neurone pre-cells in order to isolate specifically those cells that are pre-programmed for use in the brain. “It would then be possible to create specialised cell cultures to help in the research of, for instance, Parkinson's or Alzheimer's”, explains the Bayreuth animal-physiologist.

Research Finance:

The research work published in “Scientific Reports” was financially supported by the DFG as part of a Reinhart Koselleck Project. At some stages of development the research was assisted by the Friedrich Baur BioMed Center gGmbH, which is led by Prof Dr Stefan Schuster and financed by the Friedrich Baur Foundation in Burgkunstadt.

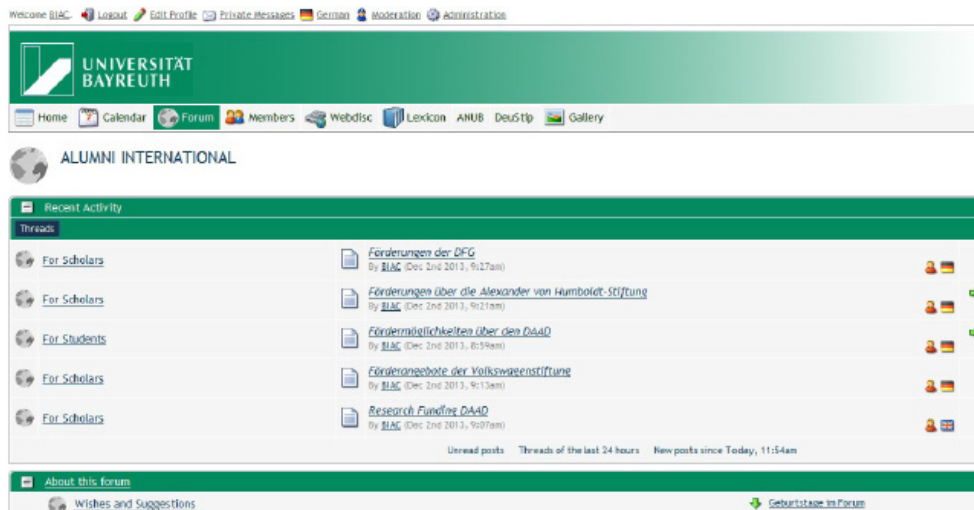
Original version (in German): Press release 021/2015 of the University of Bayreuth, <http://www.uni-bayreuth.de/presse/Aktuelle-Infos/2015/021-Zebrafische-Zellkulturen.pdf>

Translation: BIAC

Discover Our Web Portal for Bayreuth Alumni

Interaction with fellow alumni, an individual profile, forums on career and scholarship opportunities and news about the Bayreuth International Alumni Network: these are only a few of the opportunities offered by the University of Bayreuth's new web portal for international alumni and friends.

The new portal offers you ample opportunities to stay in touch with the University of Bayreuth and fellow alumni, both on a social and professional level. We look forward to your registration:



<http://www.international-alumni-forum.uni-bayreuth.de/>

UBT Events

2015
40 Jahre Universität Bayreuth



Am 19.7. ab 10 Uhr
swingt der Campus!

Let's swing!

40 Jahre Uni – jetzt wird gefeiert!

Freitag, 17.7.2015
ab 22 Uhr

Campus Party!

Profis on Stage
auf dem Campus!

Samstag, 18.7.2015
ab 14 Uhr

Campus erleben!

Der Erlebnistag
für die ganze Familie
auf dem Campus!

Samstag, 18.7.2015
ab 18:30 Uhr* / 20 Uhr**

Jubiläumsball

Auf dem Gelände des Neuen
Schlosses in Bayreuth. Tickets unter:
www.balltickets.uni-bayreuth.de

Sonntag, 19.7.2015
10 – 12 Uhr

**Jazzfrüh-
schoppen**

Das große Big Band Event
am Audimax-See auf dem
Campus!

40th anniversary of the University of Bayreuth Friday evening, 17 July 2015

Party (most likely with DJs from the university's professorate)
Everybody is welcome!
Location: campus

Saturday, 18 July 2015

“Campus Erleben”
An experience for the whole family!
Location: campus
Evening: the University of Bayreuth Anniversary Ball

Sunday morning, 19 July 2015

Early morning jazz with the University Big Band
Alumni get-together/”homecoming”
Location: campus

Please visit our homepage for further information:
www.uni-bayreuth.de

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