

RESEARCH

Office of the Provost (Research Division) Newsletter

Issue 16, October 2017



NEWSLETTER HIGHLIGHTS

Dear colleagues and students!

You are reading the 16th edition of our Research Newsletter. We would like to announce that since that edition all the new releases will be under the Office of the Provost (Research Division) because Research Services Office was merged with the Office of the Provost without any major structural changes in the job responsibilities of the Office.

In this newsletter, you'll find out about what's been happening in the recent month in research life of the University. You will also read the interview with our Provost Ilesanmi Adesida in the "In the Spotlight" section.

The newsletter also contains information of interest to our faculty members in the sections "Grants and Competitions", "Useful information" and "Congratulations" and "Announcements".

We appreciate you taking the time to read our newsletter. If you have any questions, suggestions, or concerns, please address them to the Research Division of the Office of the Provost (rsonu@nu.edu.kz).

We hope to hear from you soon, and we welcome your feedback!

Sincerely yours,

Office of the Provost (Research Division)

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IN THE SPOTLIGHT

Interview with the NU Provost Prof. Ilesanmi Adesida



Interviewed by Assel Narymbetova

Professor Ilesanmi Adesida is a successful scientist/engineer and an experienced administrator in both scientific and educational circles. Prior to his appointment at Nazarbayev University, Professor Adesida previously served as the Provost and Vice Chancellor for Academic Affairs at the

University of Illinois at \Urbana-Champaign (UIUC). He also served as the Dean of the College of Engineering and the Director of the Micro and Nanotechnology Laboratory at the same institution.

As Nazarbayev University's Provost, Professor Adesida oversees NU's entire academic and

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research program, including creating innovative educational initiatives, awarding of research grants as well as overseeing the creation and implementation of quality assurance programs. His current interest is at the intersection of higher education, research, innovation, and national development.

Professor received his Bachelor of Science, Master of Science and Ph.D. in Electrical Engineering from the University of California, Berkeley. He has served as a Researcher and a Visiting Assistant Professor at Cornell University. He then served as the Head of the Department of Electrical Engineering at the Abubakar Tafawa Balewa University in Nigeria. He then joined the ranks of the University of Illinois where his academic positions were Professor of Electrical and Computer Engineering, Professor of Materials Science and Engineering, and the Donald Willett Professor of Engineering. During his tenure at Illinois, he was instrumental in creating many innovative programs including the iFoundary for Engineering Education, the Applied Research Institute, the Advanced Digital Systems Center (in Singapore), the joint University of Kyushu (Japan)/University of Illinois' Institute for Carbon Neutral Energy and a new College of Medicine.

Professor Adesida has published over 350 peer-reviewed articles and has made more than 250 presentations at international conferences. He won many awards including the Oakley-Kunde Award for Excellence in Undergraduate Education and the 2016 TMS John Bardeen Award for outstanding contributions to electronic materials. He was named an outstanding graduate of the EECS Department at the University of California, Berkeley in 2009. He was awarded the Distinguished Service Award by IEEE Electron Device Society of which he served as President previously. He has served on many academic and industry Advisory Boards all around the world (US, Singapore,

Hong Kong, etc) and he is a member of the prestigious United States' National Academy of Engineering.

Assel: Prof. Adesida, thank you for speaking with us today.

Provost: My pleasure.

A: I will start from the most traditional question that I often ask our "spotlight" guests - what attracted you to Nazarbayev University when you moved here from University of Illinois at Urbana-Champaign in October 2016?

P: I believe the main driver for any change in life is ambition. I saw an ambition here of becoming a world class international research university. I moved to Astana to work at Nazarbayev University to assist in realizing that ambition through the establishment of a premier research university in Central Asia. It is my personal interest and ambition to develop an innovative and research-intensive institution that will play a significant role in changing social and economic conditions in a developing country. Singapore and Hong Kong will be good examples that I have had a chance to witness. I saw how higher education, research and innovation in aggregate positively affected economy, human capital and overall development of these countries.

A: You came to NU from a well-established University with long success history in the USA. Do you feel your experience there prepared you for the role of Provost of the newly founded University in Central Asia?

P: I've had a chance to serve in different administrative positions in my career - Director of the Laboratory, Head of Department, Dean of the School and Provost. The main mission of an administrator in any institution in the world is to make other

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people around you successful, to bring up students who will become future leaders in different areas and to improve the prestige and ranking of the institution where you are working. When you are a researcher you are mainly interested in yourself, in your personal development and success. However, when you become an administrator, your focus should switch immediately – you team up with other people to solve major problems that your institution is facing to make the whole University successful. The main function of the administration leader is to persuade people, to bring their best competencies to the table to solve pressing and major scholarly and societal challenges.

I truly believe that I can apply many of the skills that I have learned in USA here in Kazakhstan because the mission of an academic administrator can carry from place to place. However, I do acknowledge that the environment of the well-established and successful University in developed country is very different than the environment of the newly-founded University in a developing country. Cultural norms are also important and one has to be able to navigate through different circumstances.

I cannot really compare my work at

University of Illinois at Urbana-Champaign (UIUC) and Nazarbayev University in many aspects. The context as I have already mentioned above is different. At UIUC, all administrative processes have been evolving over a period of 150 years. They are well defined and it is hard to change something there. At NU, administrative procedures are in constant evolution and we are literally creating, inventing, and establishing them from scratch in many research – related and other aspects. In this aspect of my work, I'm actually learning more here at NU than at UIUC, because we are building these processes and training people to own them.

My ultimate goal is to assist in building a modern educational and research infrastructure at NU, which will be based on merit, excellence, and openness.

A: What area of your job here do you feel is toughest to deal with? What do you think is Nazarbayev University's biggest long-term challenge?

P: Administrative structure is quite often a problem in many Universities around the world, it is universal; but here at NU with the research ambitions that we have and that the country expects of us, we cannot waste a second. Research is highly competitive, if you have a time-gap in your research pipeline, it will be very difficult to be a leading institution.

So the critical question for us is how do we create seamless administration and procurement processes? How do we make the administrative system of the institution highly responsive to faculty and staff members' needs? How can we make NU research outcomes benefit Kazakhstan and the global economy? How can we attract international companies and the most talented young Kazakh and international scholars to work at NU? How to make these things happen rapidly?

These are the questions that I'm trying to answer with the assistance of NU Community

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daily. These are some of the main challenges that I see.

A: Taking into account your academic experience in the past, how would you define your personal benchmarks for University success in one year, five years, ten years, down the line?

P: 1 year – that we should start seeing a turnaround in administrative structures and processes that will allow us to attract top – notch students, postdocs, faculty, and administrators. Make substantive improvement in the research infrastructure of NU.

5 years – that we produce excellent faculty members and scholars that are conducting innovative research, going to the best conferences in the world, producing new IP products, and in general, contributing to the innovation ecosystem in Kazakhstan.

10 years – that NU should be a leader in interdisciplinary education and research; that NU is competing favorably with the young research universities of the world, and producing new leaders across different intellectual areas, and be an example for others to copy and follow.

A: Projecting forward, what do you see as the future of NU to the country, region and internationally?

P: The ultimate goal of any successful University especially in developing country is to become the exemplar and be a reforming agent in the higher education system in the country. This is our goal too. We need to transfer all the best practices and experience of NU to other Kazakhstani universities and institutions. The same logic can be applied not only at the country level, but at regional level as well. NU is striving to become the role model for Central Asia. For example, Uzbekistani officials are already looking at

our best experiences and considering the creation of a similar University in their country. In the nearest future, we should be able to recruit the best students from Central Asia, so that after their graduation they can return to their home countries and transfer the NU system to their Universities.

At the global level, we need to become part of the internationally relevant institutions. We need people to talk about us like they talk about best Universities of Singapore and Hong Kong. They should talk the same way about NU. We are achieving some success already by becoming an inaugural member of the prestigious Asian Universities Alliance. I should emphasize that we have a lot of work to do now to make all these possible.

A: Now we can come to the research part of our interview - what role do you envision NU's faculty will play in setting research direction for this university and moving it forward?

P: Faculty members do the type of research they think is globally relevant and will have high impact. My goal as one of the main NU administrators is to provide them the environment and infrastructure to be successful in their work. This purpose is achieved partially through different grant programs with financing those useful and beneficial areas that are globally relevant and also those with high impact in Kazakhstan. We will encourage faculty to participate aggressively in the grant programs of the Ministry of Education and Science RK and other Government RK agencies. Faculty members are also very interested in working with industry. So overall, faculty have significant roles in shaping the research landscape of NU.

A: What research initiatives will you be working on in the coming year?

P: As you know part of Office of the Provost (Research Division) has been working for the last several months and recently finished their

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work on Nazarbayev University Faculty Development Competitive Program for fiscal year 2018. The implementation of this initiative will be one of our main research priorities for the coming year. We expect to broaden this initiative to cover collaborative and interdisciplinary research programs. A new Vice Provost for Research will join us in January and part of our agenda is to cooperate with international funding agencies and institutions.

A: How do you see NU research future in the coming decade?

P: In the coming decade, NU has to be able to attract the best international and national faculty and postdocs, who will be working on

the creation of international research centers here at NU. We also should actively intensify our cooperation with other Kazakhstani universities, the Government RK, local and international industries, as well as foreign partners to meet the best international standards in areas like energy materials, genomics, intelligent systems, intellectual property, financial and management systems, advanced manufacturing and many others.

A: Thank you a lot for having an interview with me. It was a pleasure and I'm sure it will be very interesting for our NU Community. We wish you success in all your work.

P: Thank you. Kop Rakhmet.

RESEARCH NEWS

Research news from the National Laboratory Astana



Author: National Laboratory Astana press-service

Kazakhstani researchers and Oxford to start the common "Global Health span Extension Initiative" project

Astana, September 15, 2017 Today, National Laboratory Astana at Nazarbayev University hosts the III International Scientific Conference "Personalized Medicine and Global Health." Well-known researchers

of leading universities and centers of near and far abroad, representatives of the state and commercial organizations of education and public health of Kazakhstan attend this year's conference. Among guests and speakers of the conference are Richard Barker, professor and founder of the Center for the Advancement of Sustainable Medical Innovations (CASMI) of the University of Oxford, Avi Roy, president of the British Foundation for Biogerontology Research (BGRF), Valery Benberin, Head of the Medical

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Center of the Presidential Administration of Kazakhstan, Ilya Stambler, representative of the International Association for Aging (IAD, Israel), Almaz Sharman, President of the Academy of Preventive Medicine, Adesida Ilesanni, provost, Nazarbayev University and others.

The purpose of the conference is to develop the international cooperation in the joint innovative researches and breakthrough scientific developments in the field of advanced multi-mode biomedicine technologies and to discuss the prospects for creating innovative products based on them to preserve and improve the health of the population of Kazakhstan. Participants will also discuss the possibilities and problems of genomics in general, bioinformatics and the application of new technologies in practice.

According to Zhaxybay Zhumadilov, Director General, National Laboratory Astana, personalized medicine in common will improve

medical care, increase its safety and profitability.

“Personalized medicine is based on the peculiarities of the genetic profile of a particular patient and allows predicting the occurrence of diseases, conducting timely prevention and assuming the active solidary participation of the patient. When a team of specialists, including doctors, bioinformatics, IT specialists, biologists, geneticists, use information about the human genome, molecular markers of specific diseases when targeting therapy, the effect of treatment increases dramatic. We very much hope that the implementation of such approaches in the long term will contribute to significant cost savings, but at the first stage of the introduction of personalized medicine, the health care costs will significantly increase due to the introduction of new high cellular and gene technologies, which is the main barrier for its full implementation,” noted Zhaxybay Zhumadilov.

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Within the framework of the conference Richard Barker, Avi Roy, Ilya Stambler and NLA scientists will hold an official press briefing, where they tell about joint participation in the Global Healthspan Extension Initiative project, aims to strengthen the foundations for quality longevity. This project is aimed to implement of innovative technologies to expand the boundaries of healthy productive longevity of the population.

To date, the Global Healthspan Extension Initiative has already attracted interest from a number of biotechnology companies from the U.S, UK, Norway, Sweden, France and Germany, which are considering prospects for cooperation in the field of research on quality longevity.

Play your game

One of the favorite places and entertainments of EXPO-2017 is the stand where the Interactive Kazakhstan Energy Game "Towards a Green Economy" is presented. The exposition is a game that allows the user to create not just his own plan for the development of Kazakhstan's energy system until 2030, but also to see how effective this plan is, both economically and environmentally.

The developers of the unique game are researchers from the Laboratory of Energy, Ecology and Climate of National Laboratory Astana. According to Nurkhat Zhakiyev, researcher, NLA, the Interactive Kazakhstan Energy Game is a computer software that allows to EXPO visitors to access the power system of Kazakhstan and choose the best options for its development, including bolstering investment in electricity transmission infrastructure, facilitating fuel mix for electricity generation, integrating renewable energy and so on.

"We run a very big set of scenarios with the different tools developed and build a visualization tool based on a comprehensive database of results," says Nurkhat Zhakiyev. "Then with the support of an interactive tool

we let the people "play" with the levers of control of the model (they can select and combine for example a set of targets/assumptions with their hands making use of a virtual platform) and see the corresponding results in terms of system dynamics and performance. This is also a way to make more clear what we do and to show the complexity of the decision-making process in the energy sector, highlighting even the inconsistencies of some combinations."

The mission of this interactive Game tool is to give the full information about the current situation on the power system and Governmental targets of Kazakhstan. The project is based on an optimization model software package developed for reviewing technical and economic features of the power system. System components involve regions allowing the model to interact with these division sets through transmission lines.

Also, using the data elaborated by the Kazakstani Electricity Grid Operating Company, the Game allows conducting the regional level monitoring of the spatial characteristics of the power system. All the information about each region is located on the top right side of the display. The solar and wind power technical potential is estimated with the help of data obtained from meteorological stations for each region. Industrial and residential demand data estimates indicate long-term baseline projections up to 2050.

The project concept was supported by the Fund of the First President of the Republic of Kazakhstan on the basis of competition for the award for the best research in the field of science and technology for young scientists.

To see more visit: <http://energylab.kz/news/view/37>

<https://www.facebook.com/fpp.kz/videos/1634885743230805/>

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NLA hosts IV Asian Congress of Radiation Research

Today Nazarbayev University with the assistance of National Laboratory Astana hosts the IV International Asian Congress on Radiation Research within the framework of EXPO-2017.

For several days the leading scientists and radiobiologists of Kazakhstan, neighboring countries and far abroad will discuss the most important achievements and trends in the peaceful use of the atom, radiation safety for personnel of radiation hazardous enterprises, as well as new and modern methods for reducing radiation risk during work with ionizing radiation sources and controlling wellness of workers of uranium, oil, gas and mining industry of Kazakhstan.

The previous congresses were held in Japan, South Korea and China. This year representatives of the International Atomic Energy Agency (IAEA), as well as the delegations of Iran, China, South Korea, Japan, Germany, France, Russia, India, and Singapore come together to discuss the agenda of this Congress.

The plenary lectures and sections of the Congress will present the results of fundamental researches of leading scientists in the field of radiobiology, radioecology and radiation safety.

The sectional reports will cover the problems of assessing the radiation impact on environmental objects, the effect of "small" doses of ionizing radiation on the body and medical provision of radiation safety of the population. Also, mechanisms of influence of "small" doses of ionizing radiation, questions of molecular-genetic changes and their role in the development of long-term effects of irradiation will be considered. The scientists will devote considerable attention to the discussion of the results of epidemiological studies, the reconstruction of individual doses



of internal and external radiation, and the organization of electronic databases for the assessment of radiation risks.

NLA to organize seminar on antibiotic resistance

The international seminar on antibiotic resistance was launched today in Nazarbayev University under the auspices of National Laboratory Astana and International Science and Technology Center (ISTC). The seminar is dedicated to the use of antibiotics in the treatment of people, including children. Scientists from Europe, USA, India, Japan, Israel, Russia, Georgia, Armenia and Kyrgyzstan, as well as Kazakstani researchers and practitioners take part in the seminar.

According to Zhaxybay Zhumadilov, Director General of National Laboratory Astana, the widespread antibiotic resistance around the world became a serious danger that is manifested today in every region of the world and begins to have a negative impact on man's health regardless of age and origin.

Global collective action to address this threat includes proposals for the preparation of international treaties on antimicrobial resistance, as well as coordination in government agencies in health, food safety, veterinary and environmental protection. It is expected that within two days scientists will highlight in their work the reasons for resistance to drugs in the population of people and the spread of resistant strains between humans and animals. In addition, alternative

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treatments data will be made public, as despite calls for new types of antibiotic therapy, new drugs are being developed less. Researchers from the U.S. will talk about national and international programs to monitor the threats to drug resistance.

INESS-2017 to be opened at NU

Today Nazarbayev University with the assistance of the Institute of Accumulators and National Laboratory Astana hosts the 5th International Conference on Nanomaterials and Advanced Energy Storage Systems (INESS-2017).

The INESS conference started in Nazarbayev University, Kazakhstan in 2013. This year the scientists and students from Japan, Korea, France, China, Russia, Canada, UAE, UK, Turkey and Kazakhstan will review and discuss the recent progress and problems in materials science, nanotechnologies, ecology, renewable energy, energy storage systems and modeling methods in these fields.

INESS is included into the list of Global Events by Elsevier Inc.:
<http://www.globaleventslist.elsevier.com/events/2017/08/5th-international-conference-on-nanomaterials-and-advanced-energy-storage-systems-iness-2017>.

The Conference will also include a session with workshops by the Thompson Reuters and

other specialists. According to the head of the Center for Energy and Advanced Material Science, National Laboratory Astana, Prof. Zhumbay Bakenov, for several days conference participants will discuss the latest developments in the field of energy storage materials such as advanced rechargeable batteries, fuel cells, nanomaterials for energy, and others.

Energy conversion and storage devices such as advanced rechargeable batteries and fuel cells are play critical role in all parts of our society, in communication and infrastructure, industry and transport, - said Mr. Bakenov. - In many areas, the technological development is directly depending on the availability of such energy devices. Therefore, the market of advanced batteries and other energy conversion and storage devices is very competitive and rapidly growing.

For example, researchers' group and Institute of accumulators under the leadership of Zhumbay Bakenov design novel nanostructured materials to succeed in development of rechargeable batteries with high energy and power density, safety, low ecological impact, long cycle life and low cost. Leading researchers from Tokyo Metropolitan University (Japan), Lawrence Berkeley National Laboratory (USA), Warwick University (Great Britain), Chungnam National University (South Korea), Skolkovo Institute of Science and Technology (Russia), Hebei University of Technology (China) and other leaders in the development of new materials, including storage of green energy, its production and transportation, will present its projects and solutions during INESS-2017 also.

Additional information on INESS-2017 is available on the official conference website: www.iness2017.com. Information on previous conferences can be found at: <http://iness.batterykazakhstan.com/index.php/iness-2016>

Research news from the School of Humanities and Social Sciences

Author: Prof. Philippe Forêt, Department of History, Philosophy and Religious Studies.

The European Institutes for Advanced Study Fellowship Program, <http://www.2018-2019.eurias-fp.eu/about-us>, has re-appointed Prof. Philippe Forêt (HPRS) as one of its experts. He will rank multidisciplinary applications for residencies in the Centre for Research in the Arts, Social Sciences, and Humanities of Cambridge, the Wissenschaftskolleg zu Berlin, the Paris Institute for Advanced Study, the Istituto di Studi Avanzati of Bologna, the Swedish Collegium, the Netherlands Institute for Advanced Study, etc.

Philippe will also serve as expert for the French National Research Agency. The ANR agency has invited him to serve on a new program, which has received an endowment of USD 700,000,000, and "is of pivotal importance to the French system of higher education and research," <http://www.agence-nationale-recherche.fr/investissements-d-avenir/appels-a-projets/2017/ecoles-universitaires-de-recherche-eur-vague-1/>. Before the end of August, he will review several proposals that would lead to the creation of doctoral schools. Finally, Philippe will assess this summer the lifelong achievements of a distinguished scholar who he would nominate for the *** Prize, the award being of USD 1,700,000.

The Ludwig-Maximilians University and the Deutsches Museum of Munich have elected Philippe Fellow at the Rachel Carson Center, <http://www.carsoncenter.uni-muenchen.de/index.html>. The Center will welcome him back next spring to complete the book whose proposal he has submitted to the University of Chicago Press. The manuscript of his other book will be mailed to

his publisher next month and will come out in April 2018 for the Geneva Book Fair.

In Geneva, Philippe's team at the Graduate Institute has received from the Swiss National Science Foundation (SNF / FNS) a grant of USD 570,000 for a project that Philippe has developed with Prof. Marc Hufty on the governance of green energy and the global ecology of Lithium, <http://www.snf.ch/en/funding/projects/projects-in-all-disciplines/Pages/default.aspx>.

Philippe presented the SNF /FNS project on June 15 at the conference that he organized with the School of Engineering of NU and the School of Engineering of the Zurich University of Applied Sciences (ZHAW), <https://www.zhaw.ch/de/engineering/institute-zentren/ine/nachhaltige-energiesysteme/expo-2017-astana-kazakhstan/>. Financial support from Swissnex and Swiss universities made possible the first Swiss-Kazakh Seminar. More than 18 international researchers participated in this two-day event on "Towards Smart Sustainable Cities - Integrated Approaches."

Daniel Beben (Assistant Professor of History, SHSS) has been awarded a 3-year Collaborative Research Grant through the National Endowment for the Humanities (NEH) for a project entitled "Ismailism in Badakhshan: A Genealogical History." Daniel's principal collaborators on the grant are Jo-Ann Gross of the College of New Jersey and Umed Mamadsheerzodshoev of the Institute of Humanities, Academy of Sciences of the Republic of Tajikistan. The project involves a study of original, privately held Badakhshani Ismaili genealogical histories from Tajikistan and Afghanistan dating from

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the 16th-20th centuries, in addition to letters and financial documents associated with them.

The project goal is to render a defined corpus of these Persian-language texts legible as historical sources by digitalizing them; identifying their features; defining the local genres of genealogy, letter writing and document production as historical practices; and analyzing them as a source for local knowledge of the Ismaili tradition of Badakhshan. The results will be presented in a co-authored printed book and in the creation of an open access digital repository at Princeton University Library. This will be the first corpus of Ismaili documents from Badakhshan available online in transcription and English translation. The project will have intellectual significance for the historical study of Ismaili Shi'ism, the history of Central Eurasia, and the study of cultures of documentation in the Islamic world.

Author: Dr. Alima Bissenova, Director of the Master of Arts Program in Eurasian Studies

In the beginning of September, SHSS hosted Volkswagen Central Asia and Caucasus Projects Summer School, completely funded by the Volkswagen Foundation, which also included a roundtable at the Contemporary Art Center at EXPO. The goal of the summer school was to help Ph.D. students in social sciences working in the region of the Caucasus and Central Asia advance their research. Apart from the four participating projects, we have had an open call and selected five more local scholars to take part in the summer school. Here is all the information attached.

For more information, please visit the [website](#) and see [the electronic materials](#) on the Summer School at NU.

Author: Prof. Neil Collins

Prof. Neil Collins and Kristina Bekenova have recently published a policy brief on the Digital Diplomacy of the European Embassies in Kazakhstan on the <https://www.el-csid.eu/policy-briefs> website.

This work has been published under the **EU's Horizon 2020 grant funding**.

Keynote Speech and Workshop at College of Engineering, Trivandrum (Kerala-India)

Prepared by Dr. Luis Rojas-Solórzano and Aiman Uteyeva

Dr. Luis Rojas-Solórzano, School of Engineering, has been invited as the Keynote Speaker to the 4th International Conference on Materials, Mechanics and Management, IMMM 2017, organized by College of Engineering Trivandrum, Kerala, India, during 13-15 July 2017.

Dr. Rojas-Solórzano has presented a keynote speech "Clean Energy Technologies: How to assess their viability?" and a workshop on "Multi-Objective Optimization Techniques using ANSYS-CFX-DesignXplorer."

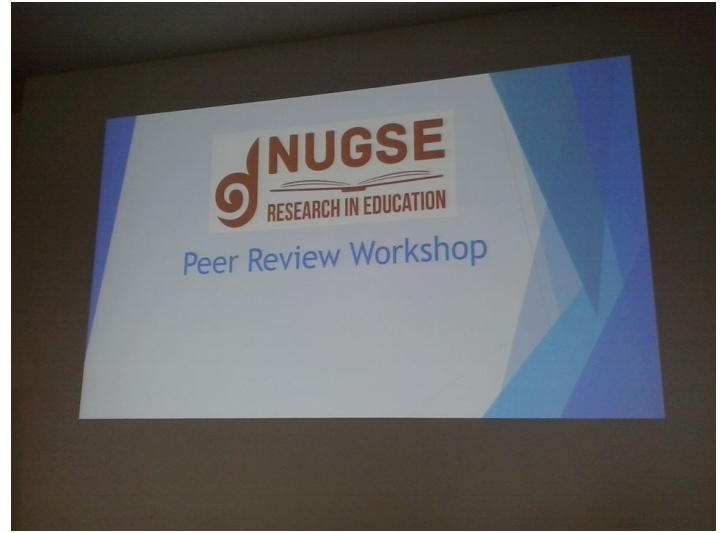
College of Engineering Trivandrum was established in 1939 and is one of the oldest Engineering Colleges in India. Alumni of this institute are wide spread throughout the globe and are bringing laurels to the Institute through their exemplary performance.



The conference was jointly organized by the Departments of Civil Engineering, Mechanical Engineering and Architecture. The conference was a forum for bringing together researchers, practicing engineers, architects, faculty and students to communicate and share new ideas and methods. Selected papers from the conference had been published in a Scopus-indexed book by Taylor & Francis.



Research News from the Graduate School of Education



Author: Dr. Philip Montgomery

NUGSE Research in Education held its fourth peer-reviewer workshop this month. Graduate students and alumni at GSE completed the 90-minute workshop to prepare for their role as peer reviewers in the journal. Peer review is a crucial component of rigorous academic publication, as they are the gatekeepers and guides for the authors who wish to share their work with a wider audience. As the future leaders of education in Kazakhstan, GSE students and alumni need the capacity for analyzing and reviewing research about education. The

workshop developed these skills as they discussed the characteristics of an effective and strenuous review, both in terms of helping the author revise the work, and to improve their own ability to read critically. The journal published its third issue in June 2017. The upcoming issue will be available in December 2017. All articles are available at nugserie.nu.edu.kz.

Research News from the Nazarbayev University School of Medicine

News shared by Prof. Dieter Riethmacher, NUSOM, Department of Biomedical Sciences

Dr. Azliyati Azizan

Publications:

Jason Ambrose, Shamala Devi Sekaran and Azliyati Azizan. Dengue Virus NS1 Protein as a Diagnostic Marker: Commercially Available ELISA and Comparison to qRT-PCR and Serological Diagnostic Assays Currently Used by the State of Florida. *Journal of Tropical Medicine*. Volume 2017, Article ID 807249. <https://doi.org/10.1155/2017/8072491>

Conferences:

1. INTERNATIONAL SCIENTIFIC WORKSHOP ANTIBIOTIC RESISTANT STRAINS. JUNE 21-22, 2017. Nazarbayev University, Astana, Kazakhstan. Presentation "Extremophiles from unique ecosystems of Kazakhstan as potential producers of novel antibiotics".
2. 3rd INTERNATIONAL CONFERENCE ON PERSONALIZED MEDICINE & GLOBAL HEALTH. Theme: Paving the way of Personalized medicine in Kazakhstan in the era of innovative technologies. September 15, 2017. Nazarbayev University, Astana, Kazakhstan. Presentation "Extremophiles from unique ecosystems of Kazakhstan as potential producers of novel antibiotics".

Dr. Luca Vangelista

Publications:

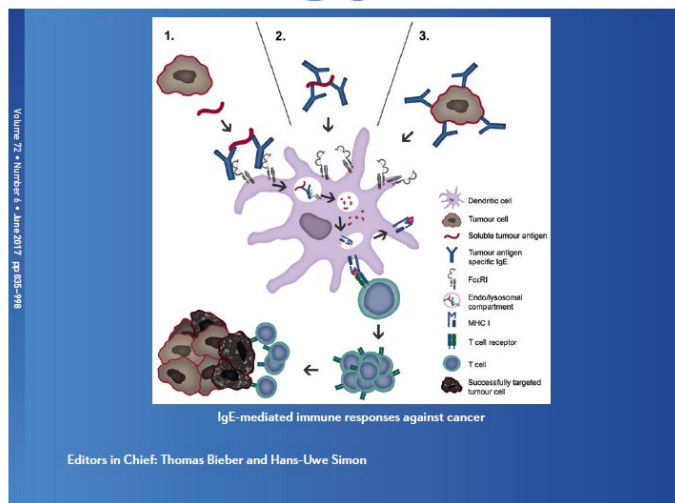
In the framework of the AllergoOncology Task Force of the European Academy of Allergy and Clinical Immunology (EAACI), Luca Vangelista, PhD, NUSOM Associate Professor at the Department of Biomedical Sciences, authored a Position Paper recently accepted for publication in the journal *Allergy* (free access at: onlinelibrary.wiley.com/doi/10.1111/all.13311/full). This Position Paper describes the opposite aspects related

Allergy

Volume 72 • Number 6 • June 2017

Allergy

EUROPEAN JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY



WILEY

WILEY

Official Journal of the European Academy of Allergy and Clinical Immunology



to immune tolerance in allergy and cancer. Jensen-Jarolim E, Bax HJ, Bianchini R, Crescioli S, Daniels-Wells TR, Dombrowicz D, Fiebiger E, Gould HJ, Irshad S, Janda J, Josephs DH, Levi-Schaffer F, O'Mahony L, Pellizzari G, Penichet ML, Redegeld F, Roth-Walter F, Singer J, Untersmayr E, Vangelista L & Karagiannis SN (2017) AllergoOncology - opposite outcomes of immune tolerance in allergy and cancer: EAACI position paper. *Allergy*. In press **DOI:** 10.1111/all.13311

Conferences:

Participation to the 3rd Conference on Personalized Medicine and Global Health (15th September 2017, NU, Astana, Kazakhstan), with the **talk** "Engineering Human Microbiota

(Continued on page 20)

for Disease Prevention and Therapy".

Dr. Chee Kai Chan

Publications:

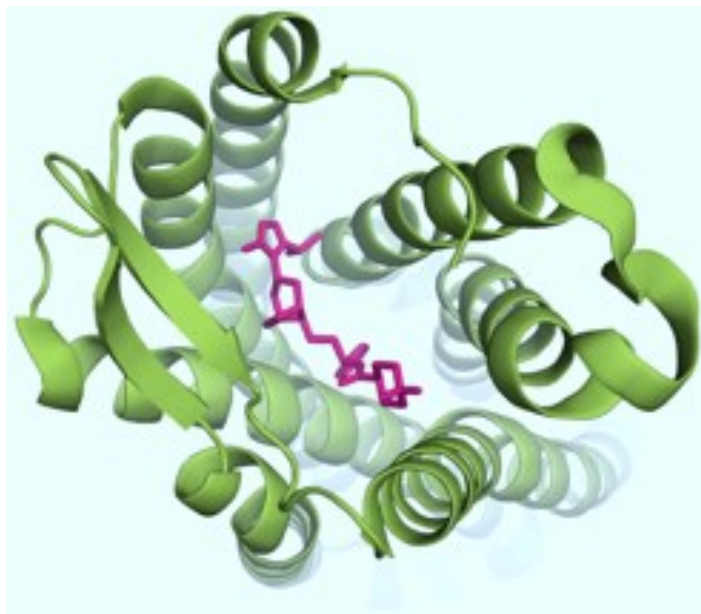
First year medical students' learning style preferences and their correlation with performance in different subjects within the medical course. D Hernández-Torrano, S Ali, CK Chan. BMC Medical Education 2017, 17 (1), 131. DOI: 10.1186/s12909-017-0965-5

Conferences:

"Ecology. Radiation. Health" in Semey Medical University, Semey on the Aug 29th 2017: RADIATION ANXIETY 25 YEARS AFTER CLOSURE OF NUCLEAR TEST CENTER: A COMPARISON BETWEEN THE YOUNGER GENERATION AND ADULTS IN A SCHOOL IN SEMEY. Nuray Turlina¹, Asselya Muldagaliyeva¹, Ruslan Uragan¹, Ayan Myssayev², Dinara Jumadilova³, Chee Kai Chan³. 1 Nazaybayev Intellectual School, Semey, 2 Semey State Medical University, Semey, 3 School of Medicine, Nazarbayev University, Astana, Kazakhstan.

MMM: Master in Molecular Medicine

On September 4th 2017, **NUSOM** started a two-year Master in Molecular Medicine (MMM) directed by Luca Vangelista, PhD, Associate Professor at the Department of Biomedical Sciences of NUSOM. Several NUSOM faculty members delivering courses in this highly specialized program support Dr. Vangelista. The MMM is the first Master of this type in Kazakhstan and the whole Central Asian region and it represents an important and pivotal driver for Kazakhstan's biomedical and biotechnological development. With Astana's fast growing pace, the presence of NU and NUSOM, and the potential to create a number of biomedical research and innovation institutes and companies, the MMM intends to catalyze the delivery of professionals that



Maraviroc bound to the CCR5 receptor

could become key figures into these local realities as well as internationally. The main goal of this Master is to provide the students with in depth knowledge and understanding of the molecular aspects underlying disease, therapy and prevention. In their final six months, MMM students will be entirely dedicated to research activities, thus contributing to NUSOM's mission in biomedical research and preparing the students for their future lives in modern biomedical/biotechnological areas.

Gulzhanat Aimagambetova

Global Obstetrics and Gynecology Congress - 2017, 7-9 July, Rome, Italy.

Speech title: Prevalence of HPV Strains among Kazakhstan Women with Abnormal Pap Smear Cytology.

The abstract with the same title was published in the congress booklet.

Research news from the School of Science and Technology

Department of Physics

Author: Prof. Vassilios Kovanis

A paper entitled, **Manipulating polarized light with a planar slab of Black Phosphorus**, authored by Assistant Professor Konstantinos Valagiannopoulos from the Department of Physics at Nazarbayev University and a team from the Department of Physics at Harvard lead by professor Efthimios Kaxiras, appeared in the Journal of Physics Communications, in the suite of IOP Publishing. The work articulates novel concepts of wave manipulation, in the abstract, they state: Wave polarization contains valuable information for electromagnetic signal processing; thus, the ability to manipulate it can be extremely useful in modeling photonic devices. In this work, we propose designs comprised of one of the emerging and interesting two-dimensional media: Black Phosphorus. Due to substantial in-plane anisotropy, a single slab of Black Phosphorus can be very potent for controlling the polarization state of electromagnetic waves. We investigate Black Phosphorus slabs that filter the fields along one direction, or achieve polarization axis rotation, or convert linear polarization to circular. These slabs can be employed as components in numerous mid-infrared integrated photonic devices.

Department of Mathematical Sciences

Author: Dr. Manat Mustafa

From July 10 - 14, 2017, Dr. Manat Mustafa participated and gave his recent results on Logic to the 15th Asian Logic Conference which was held in Daejeon, Korea.

Recently all members of the East Asia Committee and Australasia

Committee expressed their positive opinions on Dr. Mustafa's proposal of hosting the ALC 2019 at Nazarbayev University in Kazakhstan in 2019.

So, we expect to host next ALC2019 at NU. Following is the information related to the conference:

<https://sites.google.com/site/eastasialogic/asian-logic-conference>

**The 16th Asian Logic Conference,
Astana, Kazakhstan.
2019
www.alc2019.kz
(Will available soon)**

The Sixteenth Asian Logic Conference will be held in Astana, Kazakhstan on July 2019. It will be the second Asian Logic Conference since its status changed from an ASL([the Association for Symbolic Logic](http://www.asialogic.org))-sponsored meeting to an official ASL meeting by ASL Council action on May 2016. The first official ALC2017 was held in Daejeon, Korea.

The Asian Logic Conference (ALC) is a major international event in mathematical logic. It features the latest scientific developments in the fields of mathematical logic and its applications, logic in computer science, and philosophical logic. The ALC series also aims to promote mathematical logic in the Asia-Pacific region and to bring logicians together both from within Asia and elsewhere to exchange information and ideas.

From 1981 to 2008, the Asian Logic Conference has been held triennially and rotated among countries in

(Continued on page 22)

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the Asia-Pacific region. The previous meetings took place in Singapore (1981), Bangkok (1984), Beijing (1987), Tokyo (1990), Singapore (1993), Beijing (1996), Hsi-Tou (1999), Chongqing (2002), Novosibirsk (2005), and Kobe (2008). In 2008, the East Asian and Australasian Committees of the Association for Symbolic Logic decided to shorten the three-year cycle to two. The new two-year cycle began with the meeting in Singapore (2009), and subsequent meetings have been held in Wellington (2011), Guangzhou (2013), Mumbai (2015) and Daejeon(2017).

Some of the previous meetings' websites can be found [HERE](#).

Author: Dr. Thomas Mach

Two months ago one of the papers of Dr. Thomas Mach, *Fast and Backward Stable Computation of Roots of Polynomials*, **SIAM*** Journal on Matrix Analysis and Applications, Vol. 36, Issue 3 (2015), pp. 942-973 (together with Jared L. Aurentz, Raf Vandebril and David S. Watkins), was awarded a SIAM Outstanding Paper Prize. The printed version of the paper is available from David Watkins's website: http://math.wsu.edu/faculty/watkins/pdfiles/AMVW15_SIMAX.pdf and from SIAM Journal of Matrix Analysis <http://epubs.siam.org/doi/>

[abs/10.1137/140983434](https://doi.org/10.1137/140983434) (paywall, we do not have a subscription).

The idea of the paper is to use a clever factorization of the companion matrix into three sequences of unitary (Givens) rotations and a rank-one part. The main trick is that the information of the rank-one part is also stored in the unitary sequences and thus can be recomputed from them. As a consequence only computations with unitary matrices are performed, which in turn leads to a fast algorithm with superior backward stability.

* **The Society for Industrial and Applied Mathematics (SIAM)** has about 15.000 members and awards (almost) every year three papers in applied mathematics with an outstanding paper prize.

Author: Dr. Piotr Skrzypacz

Dr. Piotr Skrzypacz and his colleagues from the Department of Mathematics have presented their novel results in Micro-Electro-Mechanical Structures within their ORAU Project at the 5th International Conference on Nanomaterials and Advanced Energy Storage Systems .

The 5th International Conference on Nanomaterials and Advanced Energy Storage Systems (INESS2017) organized by Institute of Batteries (IoB), Nazarbayev University (NU) and National Laboratory Astana (NLA)

(Continued on page 23)



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welcomed over 150 people from 12 different countries in Astana, Kazakhstan on August 9-11, 2017. The scientists and researchers from Japan, South Korea, France, China, Russia, USA, Greece, Slovakia, UK, Australia, Germany and Kazakhstan reviewed and discussed the recent progress and problems in materials science, nanotechnologies, ecology, renewable energy, energy storage systems and modeling methods in these fields (*source: <http://batterykazakhstan.com/index.php/en/2017/08/23/iness-2017-summary/>*)

Author: Anastasios (Tassos) Bountis, Professor

TOPIC 1:

“LET’S FACE COMPLEXITY: BUILDING BRIDGES BETWEEN PHYSICAL AND SOCIAL SCIENCES”, INTERNATIONAL SUMMER SCHOOL, SEPTEMBER 4 – 8, 2017 AT THE LAKE COMO SCHOOL OF ADVANCED STUDY IN ITALY.

Professor Anastasios Bountis of the Department of Mathematics of SST was one of the Directors and lecturers of this International School, which hosted eminent Professors from many Universities such as: University of Duisburg - Essen, University of Munich, Germany, University of Maribor, and University of Ljubljana, Slovenia, University of Salzburg, Austria, Bar Ilan University, Israel.

As explained on the webpage of the meeting <http://lfcs.lakecomoschool.org/> Complexity Science extends across traditional scientific boundaries and embraces practically all branches of science. In fact, complexity science, **through the methods and techniques of mathematical modeling** has **expanded the boundaries of traditional areas of physics** in the realm of **social sciences, giving birth to sociophysics, and econophysics**. The program was **strongly interdisciplinary** and of great interest to the young scientists who attended. The lecture courses were well suited for beginners, MSc students, PhD students,

postdocs, and other junior and senior researchers.

Importance for Nazarbayev University:

The importance of this event for Nazarbayev University was first the fact that through **the participation of Professor Bountis as a Director and speaker, the NU Logo appeared** on the cover page of all the publications of the Summer School.

Another **important outcome of this Summer School for Nazarbayev University** came from a conversation that Professor Bountis had with the **Director of the Institute of Lake Como Schools Advanced Studies, Giulio Casati, Professor** of Università di Insubria. Professor Casati proposed that **Nazarbayev University organize at the Lake Como School of Advanced Study a series of annual Summer Schools** on any topic that NU considers of international interest in Science, Technology, Economics, or even Humanities. The Lake Como Institute offers the infrastructure and the experience for such organizations, while **the benefits for NU will be multiple**: Professors and younger faculty will be able to participate, while **NU graduate and advanced undergraduate students will have the chance to learn every year the latest achievements** in many fields of Science, Technology and other educational disciplines.

TOPIC 2:

“MATHEMATICAL METHODS IN SCIENCE AND TECHNOLOGY”,
1ST SUMMER SCHOOL, JUNE 5 – 10, 2017
NAZARBAYEV UNIVERSITY

This was the 1st Summer School of its kind organized at Nazarbayev University by faculty members of the School of Science and Technology, under the direction of Professor Anastasios Bountis of the Department of Mathematics. **10 faculty members** of the Departments of Mathematics, Physics and Robotics lectured at the School, which **was**

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attended by 42 graduate students, young researchers and advanced undergraduates students as follows:

10 from Al-Farabi University, 5 from International Information Technology University, 4 from Suleiman Demirel University, 11 from L.N. Gumilev Eurasian National University, 2 from Kazakh British Technical University and 10 from Nazarbayev University. Among the lecturers were also Professor Zh. Zhunussova from Al-Farabi University and Professor G. Nugmanova from Eurasian University.

We believe that the Summer School was very successful as it achieved its main goals:

- **Upgrading interdisciplinary graduate studies at SST**, since there is a need for **an interdisciplinary curriculum of graduate studies**, which would provide students with a solid training in methods of mathematical analysis, modeling and computation.
- **Strengthening connections with other Universities of Kazakhstan**, since Professors from other Universities of Astana and Almaty, **participated in this Summer School by giving lectures** and bringing their students.
- **Attracting high quality graduate students at Nazarbayev University**, by showing them that they can get at NU a high level education in all scientific fields where mathematical training is required, including Physical Sciences Engineering, Economics, Business and Social Sciences.

Institute of Batteries LLC – a technological startup at Technopark NU



Author: Prof. Zhumabay Bakenov

This year the Institute of Batteries LLC presented one of its spinoff projects at the ABC Quick Start startup competition organized by Nazarbayev University. The purpose of this project was the development of an electric drive that transforms any mechanical wheelchair into an electric automated one. The project proved its attractiveness in terms of social necessity and future business opportunities and was selected as the winner of ABC Quick Start startup competition.

The project team manufactured the prototype of the electric drive, the main element of which is the lithium-ion battery, and integrated it into a standard mechanical wheelchair. According to the concept, almost any mechanical wheelchair can be motorized since it is much easier, more practical and cheaper to modernize the available individually selected wheelchair rather than to buy a new electric stroller. The project aims at improving the quality of life of people who are unable to move independently by creating their own personalized version of an electric wheelchair.

The project is being developed with the help of researchers from National Laboratory Astana, namely Zhalgas Kulametov and

Nurzhan Umirov (now a PhD student in a partner Chungnam National University, Korea), as well as with the involvement of the students of Nazarbayev University (Yerzhan Massalin, Yerzan Rzagaliyev) who contributed a great deal of time and effort to the advancement of the project. The lead of the project Ms. Zhuldyz Assylova is a graduate of Master in Engineering Management Program of Nazarbayev University School of Engineering, and is responsible for the economic viability and business side of the project. All team members possess various set of skills necessary for the successful implementation of the project.

The project is being carried out under supervision of Professor of School of Engineering Zhumabay Bakenov, the Founder of the Institute of Batteries LLC.

In the long run, the project implementation will allow reducing the social inequality of people with disabilities by providing a cheaper and more appealing alternative to expensive electric wheelchairs as well as contribute to the local import-substituting production development.

Research News from the Environmental Science and Technology Group



Author: Dr. Vasileois Inglezakis

EXPO 2017 Event

Environmental Science and Technology Group (ESTg) and the Fondazione Alessandro Volta (Italy) co-organised the workshop “*Our Common Future: Energy, Environment & Development*” which was held in the framework of the EXPO2017 at the Italian Pavilion on 30 and 31 August 2017.

The event was very successful and more than 90 participants attended.

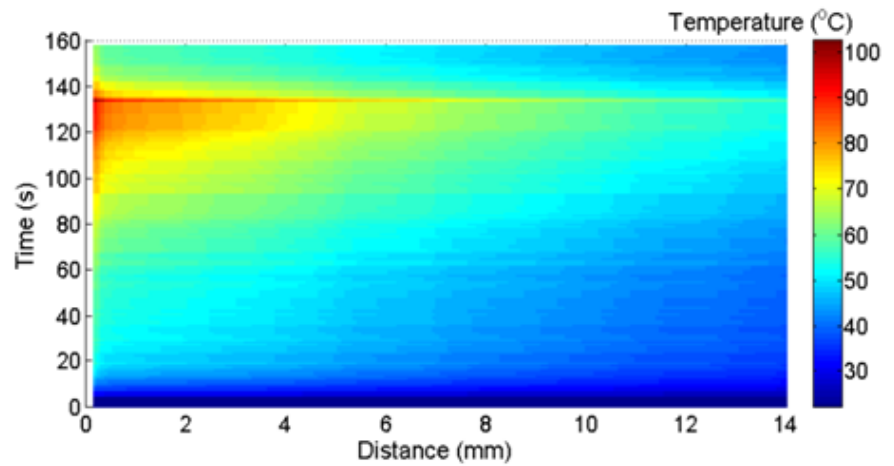
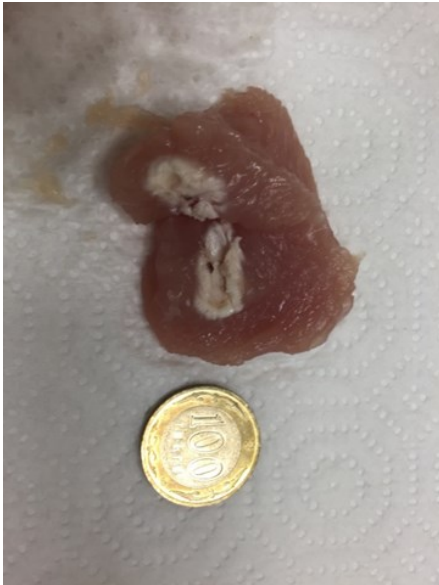
The link to the event: <http://estg.nu.edu.kz/italian-kazakh-bilateral-symposium/>

Biomedical research - Thermal ablation for cancer care

Environmental Science & Technology Group (ESTg) and Laboratory of Biosensors and Bioinstruments have initiated a collaboration aimed at the development of micro- and nano-materials for in vivo thermal ablation (TA) for cancer care.

TA is a minimally invasive medical treatment for the removal of deep-seated tumors after their localization, which is rapidly emerging in Central Asia. NU successfully completed the procurement of a research-grade machine for radiofrequency and microwave ablation of tissues; the research plan (included in ORAU-funded project LIFESTART) involves the use of advanced materials to extend and improve TA performances to mid-size tumors, controlling the ablation profile, and use fiber-optic

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optical fiber sensors

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sensors to estimate thermal patterns in real time with sub-millimeter resolution.

In the figures:

- (1) Soft phantom (chicken breast) exposed to a radiofrequency ablation for 1 minute.
- (2) Example of a thermal map, obtained with

Field trip to Pavlodar – HyperACTIV ORAU project

A week-length field trip to the Pavlodar-city has been realized within the ORAU "HYPER Activ" project funded by NU in August 2017.

It was arranged to get an insight into a complexity of the mercury pollution of the

(Continued on page 28)





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north Pavlodar and a Lake-reservoir Balkyldak. Information about hydro-geological environment and evolution of mercury within the lake sediments are important to understand the variety and distribution of the mercury pollution sources within this area. On the first part of this field the participants (dr. A. Korobeinyk, dr. S. Azat and PhD V. Yapiev) learned about the regional sources of pollution. Furthermore, area of lake borders was gridded and then aqueous, solid, sediment and microbiological samples were collected for analysis.

New paper

Prof. Inglezakis published a new paper in *Chemical Engineering Communications*

(Taylor & Francis Publications). The paper authored by V. J. Inglezakis and M. M. Fyrillas is entitled: "*Adsorption Fixed Beds Modeling Revisited; Generalized Solutions for S-Shaped Isotherms*"

Link: <http://www.tandfonline.com/doi/full/10.1080/00986445.2017.1364240>

AICHE award

Nazarbayev University's American Institute of Chemical Engineer's Students Chapter has been selected as an Outstanding Students Chapter for the 2016-2017 school year. The award will be presented in Minneapolis, US the coming October. This is the second consecutive award after the 2015-2016 presented in San Francisco, US last November.

Research News from the Graduate School of Public Policy

**News shared by Madina Lukpanova,
Graduate School of Public Policy**

Article on Implementing Public Strategies in Kazakhstan by Prof. Colin Knox was published in the Astana

<http://astanatimes.com/2017/09/implementing-public-strategies-in-kazakhstan/>

International conferences

1st International Conference on Good Governance and Economic Diversification in Resource Rich Economies was held during 17 – 19 August 2017

Nazarbayev University's Graduate School of Public Policy (NU GSPP) held its 1st International Conference on Good Governance and Economic Diversification in Resource Rich Economies on 17 – 19 August 2017. Conference organizers, Professors Weng Tat Hui and Colin Knox, said that it attracted both international and Central Asian scholars and provided an opportunity to showcase the research being conducted in Nazarbayev University.

46 abstracts were received and 32 approved. There were 32 participant including international, among them 19 speakers and 13 listeners. Participants also attended city tour organized within the social activity program of the conference. Kazinform

(Continued on page 30)





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newspaper published an article about the GSPPCONF http://lenta.inform.kz/ru/professor-iz-velikobritanii-voshitilsya-kreativom-kazahstanskoy-molodezhi_a3055934

The best papers to be published in the scientific journal Politics and Policy.

Practical approach of the research project on public councils

GSPP delivered training for Public Councils in Osakarovka and Temirtau

A team of GSPP researchers: Prof Colin Knox, Prof. Saltanat Janenova, Asiya Karibay, MPA student, Roza Tleukhan, GSPP Graduate delivered training for public councils in Osakarovka and Temirtau on 16-19 June. The team shared international experience of citizen engagement in policy making and discussed with participants on how public councils are working in Kazakhstan

Articles and publications

Prof. Riccardo Pelizzo, GSPP Vice-Dean for Academic Affairs published 3 books

Understanding Good Governance: from Theory to Practice Good governance is a system of government that is valued for its procedural qualities, for its abilities to produce specific outputs, and for generating

desirable outcomes. A system of government is good if the rule of law is respected, if there is little to no corruption, if there is no political violence and instability, if the government is effective and if there is good regulatory quality and, last but not least, if the system of government is accountable. The essays included in this volume cover good governance and its sub-dimensions. The key conclusion is that good governance matters. It creates the conditions for better, more humane societies, and, ultimately, for a better world. Tourism in Africa. Development and Inequality Tourism industry has experienced a massive growth at the global level over the past two decades. The growth of the tourism sector has been faster in Africa than in the world as a whole. Given its rapid growth and its increasing importance, scholars, practitioners, policy makers, and tourism professionals have started paying increasing attention to Africa. This book seeks to provide yet another opportunity for Africa's tourism sector to be better understood particularly in the context of how it can aid development and reduce inequality. Africa at the Crossroads The performance of African economies, in the past fifty years, has been cyclical. Economic expansion was followed by contraction, growth by decline and, a result, Africa has never been able to capitalize on its own socio-economic successes. From 2000 onward, African economies have experienced sustained strong growth. And the articles collected in this volume were written because it is clear that Africa finds itself once again at the crossroads.

(Continued on page 31)

PROF.
PETER HOWIE

PROF.
RICCARDO
PELIZZO

PROF.
COLIN KNOX



(Continued from page 30)

1. Release of the 29th issue of the [APP Newsletter](#) features an article by Prof. Riccardo Pelizzo.
2. Riccardo Pelizzo made an input to [the draft law on parliamentary oversight](#) in Bosnia-Herzegovina.
3. Paper by Prof. Peter Howie and Prof. Zauresh Atakhanova titled "[Household Coal Demand in Rural Kazakhstan: Subsidies, Efficiency, and Alternatives](#)" was published in Energy and Policy Research Journal.
4. Prof. Colin Knox shared recent publication on "[Comparative Policy Reforms](#)" in the Global Encyclopedia of Public Administration, Public Policy, and Governance. The publication compares Kazakhstan, Georgia and Azerbaijan.
5. "[Partnership with Government: an Exit](#)

[Strategy for Philanthropies?](#)" Publication by Prof. Colin Knox, Nazarbayev University and Ulster University and Padraic Quirk, Ph.D., Social Change Initiative. This article is a case study of Atlantic Philanthropies' work in Northern Ireland.

6. "[Objective or Perception-Based? A Debate on the Ideal Measure of Corruption](#)", paper on corruption authored by Riccardo Pelizzo, Saltanat Janenova and Omer Baris was published in the Vol.50:1 issue of the Cornell International Law Journal.
7. Paper by Aziz Burkhanov, titled "[Kazakhstan's National Identity Building Policy: Soviet Legacy, State Efforts, and Societal Reactions](#)" was published in the Vol.50:1 issue of the Cornell International Law Journal.

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PROF.
SALTANAT
JANENOVA

PROF. AZIZ
BURKHANOV

PROF.
OMER BARIS

Presentations and participation in international events

GSPP Research Assistants Roza Tleukhan and Assiya Karibay presented a paper at the 15th Biennial Conference of ESCAS

A team of GSPP researchers: Prof Colin Knox, Prof. Saltanat Janenova, Assiya Karibay, MPA student, Roza Tleukhan, GSPP Graduate delivered training for public councils in Osakarovka and Temirtau on 16-19 June. The team shared international experience of citizen engagement in policy making and discussed with participants on how public councils are working in Kazakhstan. GSPP DELIVERED TRAINING FOR PUBLIC COUNCILS IN OSAKAROVKA AND TEMIRTAU Research assistants Roza Tleukhan (GSPP Alumni) and Assiya Karibay (MPA student) who are involved in the IASANU project: "Promoting Ethics in Civil Service: Practices from Kazakhstan, OECD countries and China" under the supervision of Prof Saltanat Janenova presented their paper on "Ethics Codes for Civil Servants: Comparative Analysis of the Practices from OECD Countries and Central Asia" at the 15th Biennial Conference jointly organized by the European Society for Central Asian Studies (ESCAS) and the Central Eurasian Studies Society (CESS). Paper presented at the conference was devoted to the new Code of Ethics in Kazakhstan and newly created Institution of Ethics Commissioners introduced in 2016. This conference held at the American University of Central Asia (AUCA) in Bishkek from June 29-July 2, 2017 represented the first collaborative conference between CESS and ESCAS and had 107 panels including 400 presenters.

PROF. COLIN KNOX REPRESENTED GSPP AT THE OECD GLOBAL NETWORK SCHOOLS OF GOVERNMENT WORKSHOP IN RIO DE JANEIRO, BRAZIL

GSPP is an active member of the Global Network of Schools of Government and Prof Knox shared developments in the civil service in Kazakhstan with workshop participants.



Topics for discussion included: skills for a high performing and innovative civil service; digital government; civil service capability, and leadership in government. There were over 30 countries participating in the workshop.

CHINA'S ONE BELT ONE ROAD INITIATIVE

Prof. Serik Orazgaliyev took part as a moderator in the first conference on "China's One Belt One Road Initiative" launched by Nazarbayev University along with the National Analytical Center and George Washington University's Central Asia Program on 7-8 June 2017. The Conference was organized in the framework of the capacity building project. Along with 15 authors presenting their research projects, the Conference served as a platform to discuss and exchange the latest research on the Chinese ambitious initiative "One Belt One Road."

GRANTS & COMPETITIONS

New Funding Opportunities



Image Source: [Dixie State University](#)

Prepared by **Aiman Uteyeva**

We have identified new funding opportunities, all of which are suitable for the researchers based in Kazakhstan.

For your convenience, we also added funding opportunities listed in the previous issues of the Research Newsletter. The information on them can be found in the in the same Excel document.

For more information, please [click here](#).

Interreg Central Europe - third call for proposals

Shared by **Aiman Uteyeva**

The third call for proposals is launched at the anniversary conference in Berlin on 21 September 2017 and will stay open until 25 January 2018. Around 60 million EUR will become available for new, transnational cooperation ideas.

The call addresses public and private organisations that want to work together with central European partners on shared challenges in their cities and regions.

The agency seeks transnational project ideas that help to improve capacities for urban and regional development in our four priority areas:

- Innovation and knowledge development
- Low carbon economy
- Natural and cultural resources
- Transport

One-step procedure and minimum requirements

The third call will be organised in a one-step procedure. Fully developed project proposals have to be submitted via our web-based tool, the electronic Monitoring System (eMS).

Transnational partnerships can be formed by both public and private organisations. The minimum requirement for a project partnership is the participation of 3 financing partners from at least 3 countries. The typical project duration is around 36 months. The co-financing rates reach up to 85 percent depending on the geographical location of an institution. A complete application package including the application manual for the third call is currently under development and will be published on 21 September 2017 in the application documents section.

The Research Council of Norway - Call for proposals

Shared by Aiman Uteyeva

Svalbard Strategic Grant (SSG) – NOK 4 million for workshops and cooperation projects

Full information can be seen by clicking on [the link](#)

Deadline:

22.11.2017 13:00 CET

Messages:

The call will be activated 6 weeks before the deadline.

Status: Planned

Amount of funding presumed available for this call for proposals:

Up to NOK 4 million in total is available for workshops and cooperation projects that promote the strategic objectives of Svalbard Science Forum. This includes coordination and collaborative efforts in research activities in Svalbard, initiation of pilot studies and/or planning of large projects and applications.

For more information, please visit [the website](#)

EqUIP call for collaborative research on sustainability, equity, wellbeing and cultural connections

Shared by Aiman Uteyeva

Deadline: 30 November 2017

The call aims to bring together a number of social science and humanities funders in India and Europe to support excellent and innovative research on **sustainability, equity, well-being and cultural connections**. The emphasis of the research will be on Indian and European dimensions, in both contemporary and historical contexts.

With a total funding of €5.5 million, it is expected that six projects will be funded. Researchers from India, Finland, France, Norway, Poland, Slovenia, Switzerland and

the United Kingdom are invited to apply.

In order to assist potential applicants to network with researchers in other eligible countries, we have developed the opportunity for digital networking. Applicants are invited to use the **EqUIP partner search tool**, which facilitates matches between potential partners with similar ideas. It provides the opportunity to express interest either in joining a research proposal or to search for partner(s) for an existing proposal. All potential applications are encouraged to use the platform.

Full information can be seen by clicking on [the link](#)

EUROPEAID: SEARCHING FOR NON-EU COUNTRIES

Shared by Aiman Uteyeva

Source:

https://www.up2europe.eu/ideas/europeaid-searching-for-non-eu-countries_1758.html

Association Casa Famiglia Rosetta (ACFR) is a not-for-profit organization based in Caltanissetta (Italy) that operates since 1985 at national level, as well as internationally, with an integrated and global approach to disadvantaged people, through direct assistance and training of social operators, in international cooperation projects.

ACFR intends to submit a proposal under the Programme on Human Rights of the "European Instrument For Democracy and Human Rights (EIDHR): 2017 Global Call for Proposals"

(EuropeAid/155232/DH/ACT/Multi),
deadline: November 9, 2017.

The project will aim to support civil society organizations working outside the EU in its actions for the protection and promotion of human rights and fundamental freedoms worldwide, by focusing on LOT 4: Promoting and supporting the rights of persons with disabilities.

Therefore, ACFR is searching for partners, such as:

NOT-FOR-PROFIT ORGANIZATIONS FROM NON-EU COUNTRIES (including civil society organisations, non-profit-making universities, non-governmental non-profit organisations and independent political foundations, community-based organisations,



EUROPEAID

indigenous peoples' organisations, disabled persons organisations and private-sector non-profit agencies, institutions and organisations and networks thereof at local, national, regional and international level).

For further information and to apply as partner, please contact me possibly **WITHIN October 15, 2017.**

-

Mathilde De Bonis

SMe System Srl

Europrogettista - Euro-Project Designer
Professione esercitata ai sensi della legge 14 gennaio 2013

Skype: mathi19876

MAB Young Scientist Award

Shared by Aiman Uteyeva

[UNESCO MAB Young Scientists Awards: helping young people help the planet](#)

Since 1989 MAB has been providing young researchers each year with awards of up to US\$ 5,000 in support of their research on ecosystems, natural resources and biodiversity. Through the MAB Young Scientists Awards, MAB is investing in a new generation of scientists worldwide because we think well-trained and committed young people are key to addressing ecological and sustainability issues.

The International Coordinating Council of the Man and the Biosphere Programme (MAB-ICC) at its 29th session on 12-15 June 2017 adopted the new criteria and conditions for



the selection of MAB Young Scientists Award winners in order to address the Lima Action Plan (LAP) for Biosphere Reserves and relevant Sustainable Development Goals (SDGs) in applications.

The deadline for submission of application forms for the 2018 MAB Young Scientists Awards is 15 December 2017.

IBM PhD Fellowship 2018

Shared by Aiman Uteyeva

IBM PhD Fellowship nominations accepted through October 26, 2017. Notification of nominee status takes place in March 2018.

Strong collaboration with faculty, students and universities is vital to IBM. The PhD Fellowship Program advances this collaboration by recognizing and supporting exceptional PhD students who want to make their mark in promising and disruptive technologies. In 2018, the Fellowship Program is focusing on: [AI](#), [security](#), [blockchain](#) and [quantum computing](#). IBM is well positioned to advance these technologies and exploit their ability to transform industries and societies.

Students must be nominated by a doctoral faculty member and must be a full-time student in a PhD program over the two consecutive academic years of the award or forfeit their fellowship. Students must be approximately two years from receiving their



degree. Students from U.S. embargoed countries are not eligible for the program. Award recipients will be selected based on their overall potential for research excellence, the degree to which their technical interests align with those of IBM, and their academic progress to-date, as evidenced by publications and endorsements from their faculty advisor and department head. Students receiving a comparable fellowship from another company or institution during the same academic period are not eligible for an IBM PhD Fellowship.

More information @ <http://www.research.ibm.com/university/awards/phdfellowship.shtml#programdetails>


UN Women National Committee Australia MBA Scholarship

Shared by Aiman Uteyeva

Deadline: 7 November 2017

The UN Women National Committee Australia supports the work of UN Women by raising public awareness of gender and development issues. Through education women gain the knowledge to put in place policies, services and resources to fulfil the UN Women's mission for gender equality and the empowerment of women.

To advance our shared commitment to women's leadership and accelerating progress towards gender equality, the University of Sydney Business School and the National Committee for UN Women are pleased to offer the 'UN Women National Committee Australia MBA Scholarship'.

Please review the [Conditions of Award for the UN Women National Committee Australia MBA Scholarship](#) 

Eligibility

Open to all women who meet the eligibility criteria for admission to the degree, Master



of Business Administration (MBA). Applicants need not have applied for the MBA prior to applying for the scholarship, however only those applicants deemed eligible for entry to the MBA via the prevailing admissions processes are eligible to be awarded the scholarship.

The degree is currently not available to international students requiring a student visa. Employees of The University of Sydney or UN Women National Committee Australia are ineligible to apply.

More information @ <https://mba.sydney.edu.au/un-women-scholarship/MBA-UN-women-scholarship>

Between Europe and the Orient – A Focus on Research and Higher Education in/on Central Asia and the Caucasus

Shared by Aiman Uteyeva

Applications for Structurally-Oriented Measures: Anytime

- area of research: all disciplines
- type of funding: events/meetings (science/research); structural PhD programs; reintegration measures
- researchers in Central Asia and Caucasus with cooperation partners in Germany
- additional benefits: training programs, funding for communication of science and research

Objective

As a consequence of the collapse of the Soviet Union, 70 million people along the southern borders of the Russian Confederation, all with different ethnic backgrounds and languages, were catapulted into independence. The funding initiative entitled "Between Europe and the Orient – A Focus on Research and Education in/on Central Asia and the Caucasus" addresses the newly emerged independent states of Central Asia and the Caucasus as well as Afghanistan and some of the immediately neighboring regions of the Russian Federation and China. The overall aim is to work closely with local scholars and scientists to develop relevant research projects and to strengthen intraregional cooperation.

Scope of Funding

Thematic Calls

Within the frame of two thematically defined calls for proposals in the areas of



environmental and social sciences, the Volkswagen Foundation has been supporting 13 cooperative research projects since 2014 and 2015, respectively. These involve significant participation of scholars and scientists from the target region and are accompanied by training and advancement of young researchers. Further calls for joint research proposals in these or other thematic areas are not envisaged.

Structurally-Oriented Measures

In addition to the thematic calls, the Volkswagen Foundation offers support for a number of measures that can be applied for at any time: Projects aimed at the integration of researchers from Central Asia and the Caucasus who are returning from abroad, workshops, symposia and summer schools as well as targeted aid for the creation and expansion of the academic infrastructure in the region.

Details of conditions and the application procedure can be found under Information for Applicants 72 (pdf). Applications must be filed electronically via the electronic application system.

History

The funding initiative "Between Europe and the Orient – A Focus on Research and Education in/on Central Asia and the Caucasus" was started in 2000. In late November 2011 the Foundation decided to modify its offer to include a combination of theme-based calls and projects aimed at structural development.

Migration and extremism to go under the microscope in 2018 -20 Horizon 2020 research agenda

Shared by Aiman Uteyeva

With global tensions mounting, the European Commission is planning to step up research into the causes and effects of migration and extremism.

A [draft funding plan](#) published Monday proposes earmarking €111 million from 2018 to 2020 for researchers who want to study the causes and effects of migration, with plans for a further €139 million to be invested in research on “governance” issues, such as the rise of extremism in the Middle East and Balkans, the strength of democracy, and the future of the post-war order of international organisations.

Additional funds will study the impact of digitisation on industry and society, in the so-called fourth industrial revolution.

The plan would push the Commission’s main research and innovation programme, Horizon 2020, squarely into some of the touchiest political issues faced by Europe. The intent, the plan’s authors say, “is to address the concerns of the European citizens regarding migration, the fourth industrial revolution and the challenges of governance.”

The draft plan is one of 12 work programmes for Horizon 2020 developed over the past year by the Commission staff and committees of member-state experts, following consultation and surveys around Europe. It covers the final three years of the programme, from 2018 to 2020.

To date, the Commission has published five of the 12 draft work programmes, itemising how it intends to spend about €30 billion from 2018 to 2020 on research topics and



innovation projects ranging from climate change to advanced manufacturing.

The social sciences research plan focuses heavily on the pressures of migration. It invites researchers to propose studies into the factors that drive people to migrate, patterns of migration and how global organisations try to manage it. Studies on migrant children, online tools to help migrants and the protection of refugees are also planned. The latter would involve cooperation with Canada, Brazil, South Africa and Jordan. Within Europe, studies on how best to integrate migrants into society are envisioned.

On violent extremism, the work programme says more research is needed into its causes and how it can be contained. It points to the Middle East and Balkans as regions for special study, as well as the causes of extremist ideologies generally.

Other topics in the social research plan include illegal trafficking of cultural goods, the impact of technology on children, and innovative approaches to cultural tourism – the latter, to be coordinated with EU structural funds for regional development.

"Original – isn't it?" New Options for the Humanities and Cultural Studies

Shared by Aiman Uteyeva

Deadline: November 15, 2017

- area of research: humanities and cultural studies, theoretical social sciences
- type of funding: research projects; funding of a teaching substitute
- up to 80.000 or 150.000 Euro (depending on funding line)
- 12 or 18 months (depending on funding line)
- post-doctoral researchers/project teams in Germany; possible to include international cooperation partners
- short application; anonymized selection procedure

additional benefits: funding for communication of science and research

Objectives

"Originality" is a crucial criterion of quality in the humanities and cultural studies. The specific nature of the themes belonging to the humanities and cultural sciences, though, makes it extremely difficult to say precisely what constitutes "original", "new", or "innovative". It may encompass anything that contradicts the established knowledge or generally accepted intuition; or just as well the development of a new approach to research, a new hypothesis, a new theory, observation of a new phenomenon, and discovery of knowledge gaps.

With this new funding offer the Foundation wishes to encourage scholars in the humanities and cultural studies to embark on projects of groundbreaking originality. Funding will be made available for initial exploration of the research idea.

With this funding initiative the Foundation is also treading new paths concerning the



application and selection procedure – in at least three different ways: In order to expedite processing and enable decisions in between 4 to 5 months, the selection procedure has been trimmed and made as straightforward as possible. There is also an innovative review process, combining pre-selection on the part of the Volkswagen Foundation, and final selection by a panel of experts. Anonymized review ensures that the originality of the idea remains the sole selection criterion.

Scope of Funding

The funding initiative comprises two funding lines:

Funding Line 1 "Komm! ins Offene..." (Hölderlin)

The funding line addresses individual researchers, offering them the opportunity to initially explore their idea and subsequently describe it in an essay (up to EUR 80,000 EUR for a maximum of 1 year).

Funding Line 2 "Constellations"

The funding line addresses project teams comprising up to 4 applicants who wish to work together on a new research idea and test its feasibility in an initial exploratory phase, and subsequently co-author a publication on the results (up to EUR 150,000 for a maximum of 1½ years).

Further details on the conditions and the application procedure can be found under **Information for Applicants (pdf)**. Applications must be filed electronically via the electronic application system.

Travel Grants for SMEs Interested in Horizon 2020 Climate Action – includes EO and satellite applications



Shared by Aiman Uteyeva

Travel grants for SMEs and local authorities interested in Horizon 2020 Societal Challenge 5 (Climate Action, Environment, Resource Efficiency and Raw Materials) are now available. There are several topics in the 2018/2019 calls that are of interest to the satellite applications sector including:

- **Strengthening the benefits for Europe of the Global Earth Observation System of Systems (GEOSS) - establishing 'EuroGEOSS'**
- **Development of commercial activities and services through the use of GEOSS and Copernicus data**
- Negative emissions and land-use based mitigation assessment - mentions use of

Copernicus and GEOSS

- Resilience and sustainable reconstruction of historic areas to cope with climate change and hazard events - actions build upon Copernicus Climate Change Service and Copernicus Emergency Management Service
- Human dynamics of climate change - mentions use of Copernicus and GEOSS
- Inter-relations between climate change, biodiversity and ecosystem services - actions build upon Copernicus Service
- The changing cryosphere: uncertainties, risks and opportunities
- Addressing knowledge gaps in climate science, in support of IPCC
- Demonstrating systemic urban development for circular and regenerative cities - mentions use of observational

(Continued on page 42)

programmes such as Copernicus and GEOSS, satellite navigation and positioning services offered by EGNOS/Galileo

- Raw materials innovation actions: exploration and Earth observation in support of sustainable mining - mentions use of Copernicus, Earth observation, EGNOS, Galileo or other relevant Earth GNSS
- Strengthening international cooperation on sustainable urbanisation: nature-based solutions for restoration and rehabilitation of urban ecosystems
- Visionary and integrated solutions to improve well-being and health in cities - mentions use of Copernicus and GEOSS
- Towards operational forecasting of earthquakes and early warning capacity for more resilient societies - actions build on Copernicus Emergency Management Service
- International network to promote cultural heritage innovation and diplomacy - mentions use of Earth observation data, Copernicus, satellite navigation and positioning

Innovate UK and Enterprise Europe Network are offering UK-based SMEs (including not for profit businesses) and local authorities grants of up to £500 to cover travel (flight/train) and accommodation costs to attend one of the following international brokerage events for Horizon 2020 Societal Challenge 5 (Climate Action, Environment, Resource Efficiency and Raw Materials).

- **Wednesday 8th and Thursday 9th November 2017, Brussels, Belgium** (it is advisable that you register as soon as possible due to limited places).
- **Tuesday 14th November 2017, Madrid, Spain** - Spanish National Information and Networking event for Horizon 2020 Societal Challenge 5 (please note that the information part of the event will be held in Spanish), supported by the Spanish National

Contact Point for Horizon 2020 SC5.

- **Thursday 7th December 2017, Warsaw, Poland** - Polish-British information and brokerage event for circular economy, water and raw materials calls under Horizon 2020 SC5, supported by the British Ambassador to Poland, the UK Science and Innovation Network and the Polish National Contact Point for Horizon 2020 SC5.

The above events will focus on the priorities of the Horizon 2020 Societal Challenge 5 Work Programme for 2018, and will include dedicated networking and brokerage activities with the aim to aid participants identify collaboration opportunities and find suitable partners. It is therefore important that you are familiar with the participation rules for the Horizon 2020 programme, and understand the priorities and themes of Horizon 2020 Societal Challenge 5 programme - specifically the opportunities included in the 2018 funding calls. You are therefore encouraged to contact a National Contact Point, an EEN advisor or a KTN specialist (contact details below) to discuss your project idea and/or partnering needs prior to applying.

Key contacts:

UK National Contact Point for Horizon 2020 SC5: Ewa Bloch ewa.bloch@innovateuk.gov.uk

Knowledge Transfer Network: David Gardner david.gardner@ktn-uk.org

Enterprise Europe Network: Chris Woodward c.woodward@eeneast.org.uk

Enterprise Europe Network Scotland: Camille Moran camille.moran@scotent.co.uk

Horizon 2020 SC5 Contact Point for Northern Ireland: Caroline Barry caroline.barry@daera-ni.gov.uk

APPLY HERE FOR YOUR TRAVEL GRANT!

Applications close Wednesday 18th October, 12pm. Successful applicants will be notified on Friday 20th October.

Innovations Partnership Scheme (IPS)

Shared by Aiman Uteyeva

The Innovations Partnership Scheme (IPS) is designed to transfer technology and expertise developed through STFC funding to the marketplace in partnership with industry and other academic disciplines. STFC technology or expertise must be integral to the project. The technology or expertise can be developed with STFC funding at UK higher education institutes, STFC laboratories, CERN, ESRF and ESO (European Southern Observatory).

IPS projects can vary in length up to three years, with funding for a maximum project value of £150k per annum, over a period not exceeding three years.

IPS closing dates are every four months.

Applicants are strongly advised to read the Guidance Notes and are encouraged to contact the office to discuss proposals.

The lead Research Organisation (RO) must be eligible to hold RCUK grants; i.e. be an approved UK Higher Education Institution (HEI), Research Council Institute (RCI) or Independent Research Organisation (IRO) eligible for RCUK funding. Full details of approved RCIs and IROs can be found on the RCUK website. Lead applicants must be employed within a Research Organisation group previously or currently funded by the STFC core Science Programme (nuclear physics, particle physics & particle astrophysics, astronomy & space science, and accelerators & computing in support of these) or employed within STFC Laboratories/Facilities and must show that the work proposed will develop technologies and expertise directly from this research. Proposals for projects must clearly demonstrate that the science, technology and expertise involved originated from the STFC core Science Programme or the STFC facilities and laboratories, CERN, ESO and ESRF (see Annex 1).



Supporting partners The supporting partner must:

- Contribute an appropriate level of support to the project
- Have a demonstrated interest in the project and in its outcomes
- Detail the contribution (either financial or in kind) in JeS and in the letter of support. The primary investigator who is applying through JeS must submit this information on behalf of the supporting partner
- The supporting partner should include a letter of support, signed by someone with the appropriate responsibility to involve their organization in the project

More information is at

<http://www.stfc.ac.uk/files/ips-guidance-notes-2017/>

<http://www.stfc.ac.uk/files/impactinnovation/>

H2020 draft work programme now available

Shared by Aiman Uteyeva

Several draft Horizon 2020 work programmes have been made available by the European Commission ahead of the official opening of the 2018 calls. These drafts are not official call documents and as such should be treated with caution. They are intended to be a guide on the upcoming topics and you are strongly advised to consult the final published work programme when it is released.

Please click here to go to the draft work programme [website](#) or click on the links below.

- Excellent Science

- [Future and Emerging Technologies, DRAFT work programme](#) published
- Marie Skłodowska-Curie actions, [DRAFT work programme](#) published
- [Research Infrastructures, including e-Infrastructures, DRAFT work programme](#) published

- Leadership in Enabling and Industrial Technologies, [DRAFT Introduction](#) published

- [Nanotechnologies, Advanced Materials, Biotechnology, and Advanced Manufacturing and Processing \(NMBP\), DRAFT work programme](#) published
- [Information and Communication Technologies, DRAFT work programme](#) published
- Space, [DRAFT work programme](#) published

- [Innovation in SMEs, DRAFT work programme](#) published

- [Access to Risk Finance, DRAFT work programme](#) published

- Societal Challenges



- [Societal Challenge 1, DRAFT work programme](#) published (Health, demographic change and wellbeing)
- [Societal Challenge 2, DRAFT work programme](#) published (Food Security, Sustainable Agriculture and Forestry, Marine, Maritime and Inland Water Research and the Bioeconomy)
- Secure, Clean and Efficient Energy, [DRAFT work programme](#) published
- [Societal Challenge 4, DRAFT work programme](#) published (Smart, Green and Integrated Transport)
- [Societal Challenge 5, DRAFT work programme](#) published (Climate Action, Environment, Resource Efficiency and Raw Materials)
- Societal Challenge 6, [DRAFT work programme](#) published (Europe in a changing world – Inclusive, innovative and reflective societies)
- [Spreading Excellence and Widening Participation](#)
- Science with and for Society, [DRAFT work programme](#) published
- European Innovation Council (EIC) pilot, [DRAFT work programme](#) published
- Euratom, [DRAFT work programme](#) published

USEFUL INFORMATION

Nazarbayev University's New Publications

Prepared by Assel Narymbetova

Google Alerts is one of Google's tools to keep track of trends, interesting topics, or anything really new that appears on the web. We would like to introduce you the recent alerts (June 21, 2017 – October 12, 2017) on the published papers by our colleagues so you can keep track on NU research successes:

To view the recently published papers, please [click here](#).



Promoting interdisciplinary research: PURE research management solution

Prepared by Aiman Uteyeva

Nazarbayev University has purchased the Pure research management solution to promote interdisciplinary research, facilitate and ease any research-related procedures: starting from providing information on any research works (articles, books, book chapters, working papers, conference proceedings, etc.) to internal grant and project management.

To help us ease the research management procedures for you, please fill out all research-related data in your profiles.

The NU faculty and researchers should have received their details to log in to the Pure system from the “**purehosted**” sender. If you have problems logging in to the system,

please email **Aiman Uteyeva** at aiman.temirova@nu.edu.kz.

Aiman Uteyeva has already visited all Schools and NLA. If your research unit would like to get a training on how to use Pure, please email to Aiman Temirova.

The step-by-step guideline on how to enter data and update your profiles can be downloaded by following **this link**.

Research Performance Evaluation using SciVal

Prepared by Aiman Uteyeva

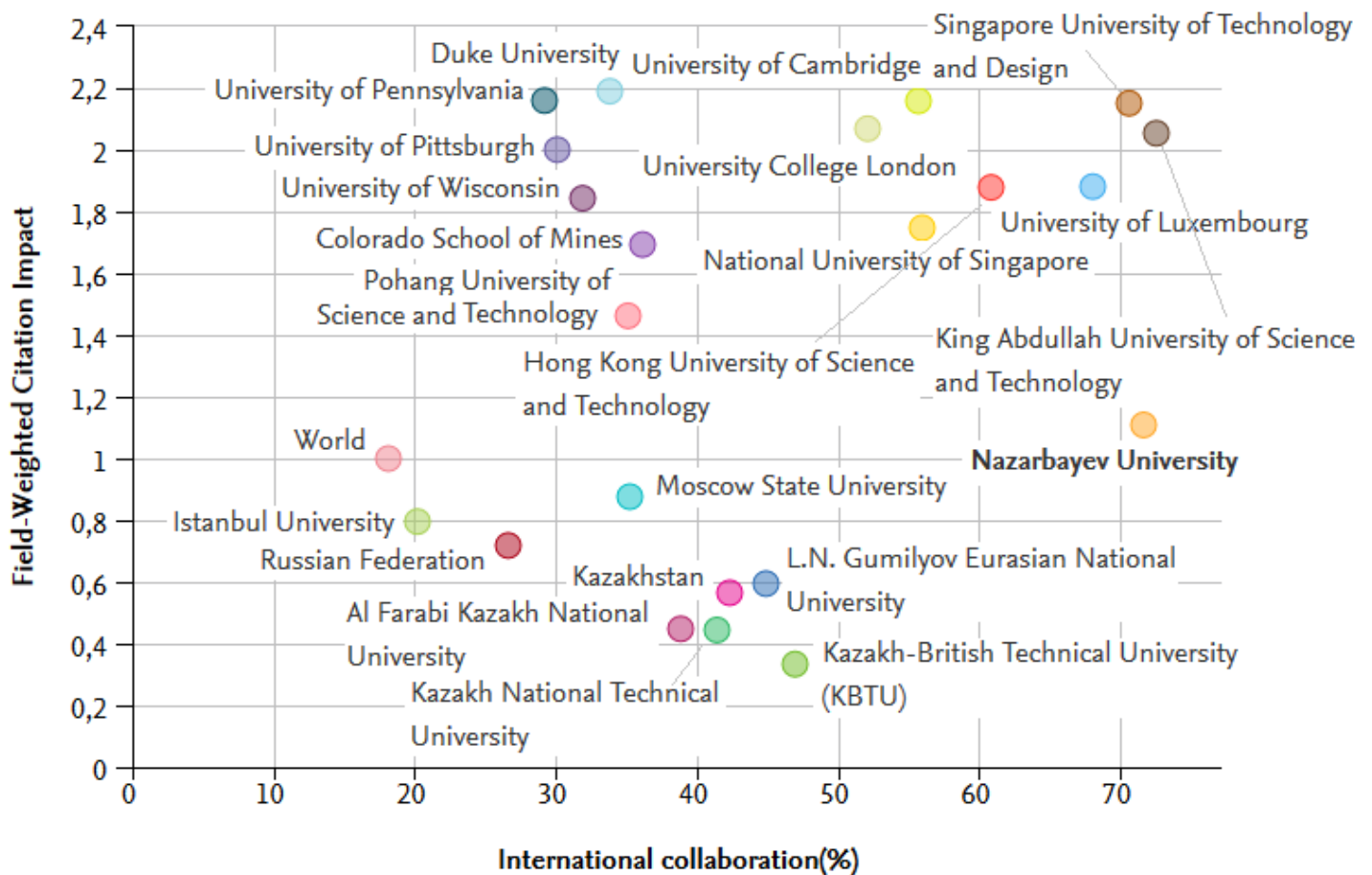
In this month's issue, we are delighted to share an updated presentation on the research performance of Nazarbayev University using the SciVal research solution.

Since its inception in 2011, Nazarbayev University faculty and researchers have released **1381** peer-reviewed publications indexed by Scopus, and have been cited **4132** times (source: Scopus, 5 October 2017). The approximate number of citations per the peer-reviewed publication is 3.

In order to provide you with more

comprehensive information on the NU's research performance, we prepared a [presentation using SciVal research evaluation](#) platform that is based on Scopus.

If you have any questions regarding the provided information, please contact **Aiman Uteyeva** (email address: aiman.temirova@nu.edu.kz), Manager for Research Monitoring and Assessment, Office of the Provost.



Benchmarking the research performance of Nazarbayev University, national and international institutions using Field-Weighted Citation Index and International Collaboration share of peer-reviewed publications from 2011 to 5 October 2017.

NSF Guide for Proposal Writing

Shared by Aiman Uteyeva

Source:

<https://www.nsf.gov/pubs/1998/nsf9891/nsf9891.htm>

The staff of the Division of Undergraduate Education (DUE) at the National Science Foundation (NSF) often provide informal guidance to proposers. Staff members give workshops on proposal writing, answer questions by phone and e-mail, and talk to potential awardees at professional meetings and at NSF. The following is the essence of the advice often given to inquirers. These suggestions for improving proposals were collected from a variety of sources, including NSF Program Directors, panel reviewers, and successful grantees. Ultimately, proposals are peer reviewed in panels consisting of colleagues in science, mathematics, engineering, and technology disciplines or related fields, and the success in obtaining funding depends in great measure on reviewers' judgements and their written reviews.

"What makes a good proposal?" A good proposal stems from a good concept. The best proposals are those to which the reviewers respond, "Of course, I wish I had thought of that!"

The most important thing is a project that will benefit undergraduate education and directly improve student opportunities to learn. That said, however, the proposal must be written in sufficient detail to allow reviewers to understand:

- what the project hopes to accomplish;
- if the project personnel have the necessary expertise to accomplish the goals and objectives;
- the potential of the project to improve undergraduate education;
- the national impact and cost effectiveness



of the project; and evaluation and dissemination plans.

Carefully read the *Program Announcement*. The ***Program Announcement*** gives the most current information available. It provides for all DUE programs: (a) a rationale, (b) an overview, (c) detailed program information, (d) facts about preparation and submission of both preliminary and formal proposals, (e) review criteria, (f) special forms that should be submitted with proposals, and (g) advice to proposal writers. This is the best possible guide for preparing proposals to DUE programs and should be read carefully and followed precisely. There are no hidden agendas. Proposals are funded in a competitive system based on merit and promise.

While this ***Guide*** may provide valuable information for proposal writing in general, it was specifically prepared for programs in the Division of Undergraduate Education (DUE). Because programs, priorities, technologies, funding levels, and many other details change, advice in this ***Guide*** will also change with time. Following the advice given here certainly does not guarantee funding although we hope it will help applicants write better and more competitive proposals. Another factor that must be considered is that NSF receives

many more proposals that are worthy of funding than there are funds to support. National priorities and the desire for a balanced portfolio of projects influence what is ultimately funded.

We hope that you find this **Guide** informative. NSF, together with creative partners, make an important difference in undergraduate science, mathematics, engineering, and technology education.

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CONGRATULATIONS!

Congratulations to Dr. Almas Shintemirov and Dr. Viktor Ten!



Dr. Almas Shintemirov, Associate Professor at School of Science and Technology, and Dr. Viktor Ten, National Laboratory Astana, were awarded with diplomas by the National Center for Scientific and Technical Expertise and the Ministry of Education and Science of the Republic of Kazakhstan for publishing highly cited articles in the field of green energy in international peer-review journals.

Congratulations to Almas and Viktor! We wish you all the best in your future research activities!

Congratulations to Dr. Yerlan Ramankulov!



Dr. Yerlan Ramankulov, Assistant Professor at Biology Department, School of Science and Technology, has received from President Nazarbayev an OIS Science & Technology Achievement Award for his outstanding contributions in the field of Biochemistry.

Congratulations to Dr. Ramankulov! All the best with your future research endeavors!

Congratulations to Dr. Costas Valagiannopoulos!



We would like to take a moment to congratulate Konstatinos Valagiannopoulos an Assistant Professor in the Department of Physics of SST, on publishing **15 articles in flagship journals** during his first 2 academic years at Nazarbayev University. Konstatinos has contributed scholarship in the following journals of the American Physical Society included contributions to Physical Review X, Physical Review A, Physical Review B and numerous other journals of IEEE and the American Institute of Physics.

Dr. Valagiannopoulos joined Nazarbayev University in 2015. His primary research interests are in the devices controlling electromagnetic fields and the materials employed in these devices including hyperbolic metamaterials and graphene-like two-dimensional. In the past, Konstadinos was employed as a visiting researcher at the University of Texas at Austin ECE, Harvard University Department of Physics and the University of Southampton. Konstatinos is an IEEE Senior Member since 2016. He is the recipient of the International Chorafas Award and the competitive Thomaidis Award for the Best Doctoral Thesis (2008), Journal of Optics Research Excellence Award.

As usual Konstatinos strongly motivated to work with Ph.D., Masters, and enthusiastic undergraduate students, please drop by his office on the second floor at SST to discuss projects and perspective on the forefront of photonics and next generation of high-performing devices and systems, funding is available.

ANNOUNCEMENTS

Call for Fellowship Applications Centre for Global Cooperation, University Duisburg-Essen

Call for Fellowship Applications 2018/2019

The Centre for Global Cooperation Research at the University Duisburg-Essen, Germany, is inviting Applications for Research Fellowships for the period 2018/2019. We invite proposals on the themes

- **Pathways and Mechanisms of Global Cooperation**
- **Global Cooperation and Polycentric Governance**

For more details see attachment or:

<https://www.gcr21.org/en/fellows/how-to-become-a-fellow/fellowships/>

The deadline for applications is 19 November 2017. The online application form is available on <https://www.gcr21.org/en/fellows/how-to-become-a-fellow/application-form/>

ERC Consolidator Grant Training

29th November 2017, Utrecht, The Netherlands

Where?

Euclideslaan 1, Utrecht, The Netherlands

When?

29 November 2017

9:00 to 17:00 (1 day)

Registration deadline

17 November 2017

(Registration details at the end of the page)

Number of participants

8-9 participants*

Download programme

Price

€899 excl. BTW

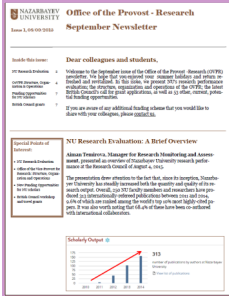
About the ERC Consolidator Grant

The ERC programme supports frontier science in any field of research and is acknowledged as one of the most prestigious funding schemes in Europe. ERC grants are highly personal and have the potential to boost scientific careers. The ERC Consolidator Grant provides an excellent opportunity for researchers to further consolidate their independence, allowing those crucial steps necessary to achieve a long-term scientific vision. Not surprisingly, competition is significant and only the most outstanding applicants that are able to convince of the excellence and the breakthrough nature of the project are funded.

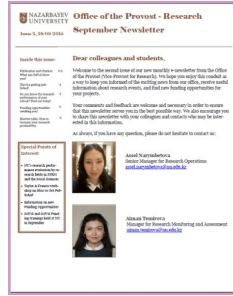
For who?

Any Principal Investigator interested in applying for the ERC CoG programme in February 2018. Researchers of any nationality with **7-12 years of experience since completion of the first PhD** are eligible to apply (be aware that this window can be extended by eligible career breaks, e.g. maternity leave, long-term illness or clinical training).

NEWSLETTER'S PREVIOUS ISSUES



Issue #1



Issue #2



Issue #3



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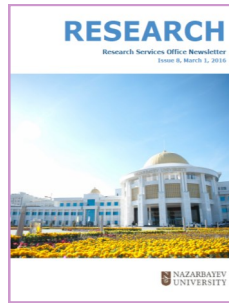
Issue #6



Issue #7



Issue #8



Issue #9



Issue #10



Issue #11



Issue #12



Issue #13



Issue #14



Issue #15



Research Services Office
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Astana 010000, Kazakhstan