



# 2014

## 12 Stories





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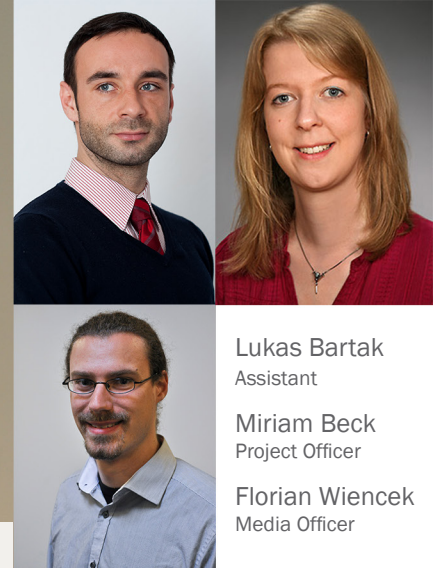


GEFÖRDERT VOM

Bundesministerium  
für Bildung  
und Forschung



State Secretary Cornelia Quennet-Thielen announcing BMBF-Funding at the GYA AGM 2013 in Halle.



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# 1

## One step closer to establishing a permanent global voice for young scientists

In the five years since its inception, the GYA has engaged with national and international organizations to ensure that the voice of young researchers contributes to the conversations that shape the future of science. In January 2014, an important milestone was reached on the road to making this voice a permanent one. The German Federal Ministry of Education and Research (BMBF) announced core-funding support for the GYA for an initial period of three years. Speaking at the GYA Annual General Meeting in 2013, the BMBF State Secretary Cornelia Quennet-Thielen highlighted the lasting role that the GYA has played in promoting dialogue with early career researchers. “It is already clear today that the GYA was not just a storm in a teacup or a squall that passes over as quickly as it arises but a constant wind that brings lasting changes.” The BMBF funding ensures the continuing operation of the GYA office in Berlin, which plays a central role in coordinating the global activities of our members. Support for international organizations like the GYA raises the profile of science in both developed and developing countries.

The new funding has enabled the GYA to hire three new staff members for the Berlin team: Lukas Bartak (Office Assistant/Accountant), Miriam Beck (Project Officer), and Florian Wiencek (Media Officer). Together with the Managing Director, Heidi Wedel, the new staff are supporting the organization in carrying out core objectives and in providing services for our membership. One area of growth has been in the use of social media platforms to communicate outcomes, build networks, and improve the visibility of the GYA. We are excited about a new strategic media plan focusing on outreach activities that we expect to launch in mid-2015. The new staff have also allowed the GYA to offer greater support for our member’s activities, and to aid international coordination and collaboration with organizations like the National Young Academies, the UN Foundation and Future Earth. Our expanded capabilities have led to exciting new GYA-led projects. Examples include: a mentorship program for women in science, a collection of inspiring “words of wisdom” aimed at young scientists, and an innovative Dutch-Egyptian research collaboration in the fields of applied physics and chemistry.

The GYA continues to be hosted and administered by the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW) in Berlin in cooperation with the German National Academy of Sciences Leopoldina in Halle.





Irene Friesenhahn presenting GloSYS at the official launch of the report at BBAW.

Catherine Beaudry presenting GloSYS in Canada.

Kickoff meeting GloSYS ASEAN in Thailand.

## 2

### GloSYS – Measuring the pulse of early career research

The first report of our flagship project, the “Global State of Young Scientists” (GloSYS), was launched in January 2014 at the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW) in Berlin. Attending the launch were BBAW President Günter Stock and BMBF Head of Directorate Research Organizations Dietrich Nelle, along with representatives from German science organizations and members of the GYA Executive Committee. Authored by GYA member Catherine Beaudry (Canada) and GYA researcher Irene Friesenhahn, the GloSYS precursor offers a candid snapshot of the career development concerns facing young researchers around the globe. The central findings and recommendations of the GloSYS project provide an evidence-based approach to improving the state of young researchers throughout the world. Supported by a grant from the German Federal Ministry of Education and Research (BMBF), the precursor study provides a framework against which future progress can be monitored, and lays the foundation for further work on the state of young scholars.

The report received widespread media coverage in high-profile journals and magazines such as *Nature*, *Science*, *Times Higher Education*. Interest in the report also led to invitations to share the findings at international meetings. GYA members presented the GloSYS report to both young scientists and members of senior academies at the *First Africa Young Academies Regional Conference*, and at the *Arbeitskreis Karriere-management in den außeruniversitären Forschungseinrichtungen*, which is a group of human resource experts from the German national research organizations. The report was also discussed at the *Society of Research into Higher Education* meeting, which is a major association for those working in this field of research. The central findings and recommendations of the GloSYS study have already influenced science policy at the national and international level. In Thailand, for instance, they motivated the launch of a new mentoring program for recently graduated academics from overseas. GYA members presented GloSYS results at GRC (Global Research Council) regional meetings that influenced the “Shaping the Future” GRC policy statement, adopted in 2014.

The GYA is beginning the process of expanding the GloSYS study at the regional level. GloSYS ASEAN, which started in November 2014, examines conditions, obstacles, and opportunities that shape the career paths of young scientists in Asia. In a region with a rapidly evolving research landscape, the study will focus on key factors influencing creativity and innovation as well as mobility. GloSYS ASEAN is co-funded by the National Science Technology and Innovation Policy Office of Thailand and the German BMBF, and is executed in cooperation with the National Science and Technology Development Agency in Thailand. For this study, Johannes Geffers joined the Berlin office team as GloSYS Project Researcher in October 2014, succeeding Irene Friesenhahn



left: Sherien Elagroudy meeting the UN Secretary-General Ban Ki-moon. right: Sherien Elagroudy and Rees Kassen at the inauguration of the SAB, 30 January 2014, Berlin.

Rob Jenkins presenting at the second meeting of the SAB in Paris on 10 December 2014 in Paris.

# 3

## Establishing a voice for young scientists at the United Nations

2014 saw the GYA establish a relationship with the newly founded UN Secretary-General's Scientific Advisory Board (SAB). The inaugural meeting was addressed on 30 January 2014 by a panel of six young scientists, including GYA Co-Chair Rees Kassen (Canada) and GYA member Sherien Elagroudy (Egypt), who addressed an audience including UN Secretary-General Ban Ki-Moon and UNESCO Director-General Irina Bokova. The young scientists emphasized the importance and value of public science, which they defined as science that provides ideas and innovation for the public good and that increases public engagement in the scientific process. Our members highlighted three actions that the SAB might consider to help promote public science:

- Ensuring open access to knowledge, data, and infrastructure.
- Building public trust in decision-making by ensuring the transparent use of knowledge.
- Supporting more direct engagement by the scientists in decision-making, with the media, and with the public at large.

This opportunity has opened the potential for future collaboration between the SAB, UNESCO and the GYA. We invited the SAB to use the growing and diverse network of leading early career researchers from the Global Young Academy and other Young Academies in their work. As a result, the GYA was asked to address the SAB at its second meeting at the UNESCO headquarters in Paris, where GYA Executive Committee member Rob Jenkins (UK) and GYA Managing Director Heidi Wedel presented the GYA and its response to the report by the UN's High-Level Panel of Eminent Persons on the Post-2015 Development Agenda. Looking forward, future collaborations between the GYA and high profile international bodies like the SAB will allow the GYA to maximize the impact of young scientist's views on public policy.

*[to be continued on page 14]*





# 4

## Building a stronger voice for young scientists through regional cooperation

One of the core activities of the GYA is promoting the foundation and development of National Young Academies (NYAs) around the world. In 2014 the GYA organized two regional meetings to support this aim. The First Africa Young Academies Regional Conference was held in Nairobi, Kenya on 3-5 February 2014. The event brought together representatives from the Network of African Science Academies (NASAC), African National Young Academies, as well as early career scientists from across the African continent. Supported by NASAC and funded by the Robert Bosch Foundation, the goal of the meeting was empowering leading young African researchers to use scientific development as a means to achieve a sustainable future for the region. The participants developed a roadmap to promote the formation of further NYAs in Africa, as well as a network to link them. They also discussed the role of young scientists and young academies for capacity building and science-policy dialogue in Africa, and established a network for preparation of the GloSYS Africa study.

A similar meeting in Asia was organized by GYA members and the Science Council of Japan. The First Regional Meeting of Asian Young Scientists took place on 13-14 February 2014 in Tokyo, offering a forum for the exchange of ideas, for networking, and for the development of a shared vision among Asian scientists. Each meeting allowed young scientists to share ideas and learn from each other, and to build contacts with regional senior scientific bodies.



Marc Creus presenting the IAP Statement.

Synthetic Biology in practice in the lab of GYA-member Nico Dissmeyer.

# 5

## Strengthening the ties between the GYA and the IAP

The past year has seen the GYA continue the close collaboration with the InterAcademy Partnership (IAP) - the Global Network of Science Academies. An important activity in 2014 was participation in the IAP Horizon Scanning exercise. This initiative sought to identify future risks, emerging issues or opportunities that might affect current policy or practice. The GYA was invited alongside IAP member academies to propose projects that might address nascent problems facing society. We were pleased that GYA member Sherien Elagroudy's project "Solid Waste Management and Green Economy" was selected for funding, and will be implemented in cooperation with IAP. She hopes this work will motivate and assist governments and businesses in making a transition to the green economy. Having a project funded by the IAP significantly strengthens our role as partner of the organization.

Our ties were also strengthened through the participation of GYA members Borys Wrobel (Poland), Marc Creus (Switzerland), and Nico Dissmeyer (Germany) in the IAP Synthetic Biology Working Group. This body prepared the IAP's policy statement on "Realising Global Potential in Synthetic Biology", which was published on 7 May 2014. Highlighting the different areas in which researchers are currently working with synthetic biology, the statement calls for institutions to take a balanced and evidence-based view of the potential benefits, as well as risks of this new technology. The statement articulates the need for better communication between the scientific community, policy makers, and the public in discussing ethical and social concerns linked with synthetic biology.





Karen Lorimer & Paula Klimvaa at the ALLEA GA 2014, Oslo, NO.



Group of officials from eight international science organizations at the TWAS headquarters, Trieste, Italy, 18 February 2014.



Eva Alisic on the Open Data Panel, ICSU GA 2014, Auckland, NZ.



GYA members at STS Forum 2014.

# 6

## GYA: a strong partner in intergenerational dialogue

Since its inception the GYA has promoted intergenerational dialogue and cooperation with senior organizations as being mutually beneficial for all partners. In the past four years this has led to fruitful relationships with organizations such as the InterAcademy Partnership (IAP), the World Economic Forum (WEF), the GRC, and TWAS (The World Academy of Sciences for the advancement of science in developing countries). In 2014 we were able to broaden our network to include organizations such as the ICSU (International Council for Science), UNESCO, the EU Commission's Joint Research Centre (JRC), the Science and Technology in Society (STS) forum, the European Academies Science Advisory Council (EASAC), and the ALL European Academies (ALLEA).

The trigger for this growth in collaborative activity was the GYA's participation in the first joint meeting of the leadership from eight of these international science organizations in Trieste last year. Directly following from this meeting were a number of invitations to contribute to working groups and statements, and invitations to comment on policy recommendations such as the "UNESCO Recommendation on the Status of Scientific Researchers".

GYA members were also invited to present and participate in the organizations' meetings. For example, Co-Chair Eva Alisic (Australia) presented at the ICSU Annual General Meeting 2014, and Paula Kivimaa (Finland) and Karen Lorimer (UK) presented at the ALLEA Conference. For the first time, the prestigious STS Forum invited five GYA young scientists to join leading scientists, policy makers, government representatives and business leaders at their annual meeting in Kyoto. We were also invited by ICSU to nominate members for the delegation to the UN Preparatory Committee Meeting for the Third UN World Conference on Disaster Risk Reduction, which will take place in March 2015 in Japan.

Cooperation between the GYA and these senior organizations is not just one-sided. Representatives of ICSU, UNESCO and the IAP participated in our own 2014 Annual General Meeting in Chile, and we collaborated on media campaigns for several partner organizations. Our goal for 2015 is to maintain and build upon our productive collaborations with our strong partner network.



# 7

## Reaching out to South America

The Fourth International Conference of Young Scientists and Annual General Meeting of the Global Young Academy took place in Santiago, Chile in May 2014. This was the first GYA meeting to be held in South America. The conference addressed the theme of “Natural Resources in a Finite World”, and focused on the management of natural resources and improving the human condition as cornerstones for sustainable development. In total 105 scientists and scholars attended the conference, bringing GYA members from all over the world together with Chilean young scientists and scientific leaders. The conference featured distinguished invited speakers including Jorge Sequeira (UNESCO representative in Chile), Angélica Bucio (Communications Officer, ICSU Regional Office for Latin America and Caribbean), Juan Asenjo (President Chilean Academy of Sciences), Howard Alper (Chair Government of Canada’s Science, Technology and Innovation Council), and Jorge Allende (IAP). A meeting of the representatives of National Young Academies from around the world preceded the GYA conference. One of the highlights of the meeting was the chance to welcome 45 new members from 28 countries, bringing the GYA up to the full complement of 200 members for the first time.

Following the meeting in Chile, several of our members continued our outreach in South America via the Young Scientist Ambassador Program (YSAP). This initiative facilitated a visit of GYA member Javier Garcia Martinez (Spain) to Peru in October 2014, where he engaged with Peruvian young scientists and senior scientists through meetings at the Academia Nacional de Ciencias (Academy of Sciences of Peru). Reflecting on the experience, Garcia Martinez writes “there are few things more gratifying for a scientist than to meet with young colleagues to promote science, empower them, and move forward great initiatives, such as the GYA”.

Photos: *top left*: Cristián Prado; *all other images*: Florian Wiencek / GYA





# 8

## GYA gathers 400 Young Scientists in Lindau

How do we recruit potential new members for the Global Young Academy (GYA)? We deliver excellent work, talk about this work, and share enthusiasm for what we do. As members of the GYA, we have much to draw on. At the 64th Lindau Nobel Laureate Meeting in July, GYA members Marc Creus (Switzerland), Ghada Bassioni (Egypt) and the Managing Director, Heidi Wedel, held a GYA session on “Excellent Young Scientists Aiming to Change the World”. Approximately 400 young researchers from all over the world participated at the session. After a brief introduction by Heidi Wedel on the mission and mandate of the GYA, Marc Creus and Ghada Bassioni delivered personal accounts as GYA members, conveying their enthusiasm for the GYA and their work to the young researchers present in the audience.

The vivid accounts demonstrated the importance of scientists’ engagement with the society in order to make science better understood by general public and governments. Marc Creus referred amongst others to Bruce Alberts’ influential 2011 Science editorial on the Young Academy Movement. Alberts is member of the Senior Advisory Board of the GYA and an influential scientist, who inspired many GYA members to serve the public good with their work. He presents a worldview the GYA encourages as well: “Science is important, and scientists should engage with society”, as Marc Creus formulates it. Therefore science outreach is a strong field of activity of the GYA as well and our members encouraged the young scientists in Lindau to become part of the GYA and actively support science education and communication. “You, the young scientists, are important to the world” was one of the key messages.

A full video of the presentation is available in the Mediatheque of the Lindau Nobel Laureates Meetings.



# 9

## Invisible Worlds: GYA Members identify emerging societal challenges

In our first collaboration with the EU Commission's Joint Research Centre (JRC) and the European Academies' Science Advisory Council (EASAC), the Global Young Academy co-organized a brainstorming session to identify undetected challenges for the society. One of the goals was to establish a standing consultation body with leading young researchers and to explore the possibility of involving the GYA into the JRC's dialogue with other academic stakeholders. This provided an excellent opportunity for young scholars to pitch their ideas to representatives of the European Commission.

The meeting took place in July in Brussels and involved 20 GYA members from Europe and neighboring Mediterranean countries including the GYA Co-Chairs, 10 members from 5 National Young Academies, a representative of the IAP - the global network of science academies as well as representatives of EASAC and JRC, among them the Director General (DG) of the JRC Vladimír Šucha and the past EASAC president Volker ter Meulen. The meeting facilitated an interactive debate on creative and innovative approaches to addressing complex societal challenges, worked towards detecting new and emerging challenges that are not yet identified, and generated ideas for integrating natural sciences, social sciences and behavioral sciences in order to improve preparedness.

The brainstorming resulted in plans for a GYA-JRC project on the topic "Invisible Worlds", developed by the participating scholars. We see this as a good example of topical agenda setting by the GYA. The project aims to identify and highlight complex "worlds" that usually go unnoticed in everyday life, such as the processes behind our food-chain and their consequences. The project will involve collecting many more cases of "invisible worlds" and to understanding to what extent they are addressed by current disciplines. The aim is to identify the "invisible worlds" that are emerging issues of societal relevance. The JRC and GYA are close to signing a Letter of Intent on their broader future cooperation.





# 10

## Facilitating the establishment of National Young Academies

2014 was a strong year for the Young Academy movement. The GYA was particularly happy to see six thriving initiatives complete their journey to National Young Academy status. The year started with the launch of the **Kenya National Young Academy of Sciences** on 3 February 2014 with a cheerful and traditional African celebration at the opening ceremony of the First Africa Young Academies Regional Conference. This was followed by the media launch of the **Ghanaian Young Academy** on 14 May 2014, which is currently in the process of admitting inaugural members. We were also glad to be able to attend the official launch of the **Egyptian Young Academy of Sciences** on 18 September 2014, and to meet the first group of 15 founding members. November 2014 was a busy month, with the admission of the inaugural cohort of 91 members to the **College of New Scholars, Artists and Scientists of the Royal Society of Canada** and the launch of the **Vietnam Young Academy** on 2 November 2014, who are basing their constitution on the NYA blueprint developed by the Global Young Academy. And last but not least, the official formation of the **Indian National Young Academy of Science (INIAS)** on 20 December 2014 came as a wonderful present to finish off the year.

The NYA movement continues to gain global momentum. There were promising steps towards the foundation of an NYA in several more countries, including, Spain, Italy, Norway, Indonesia and Uganda. In each of these countries, the GYA and its members have been pleased to offer assistance and advice. We have also fostered the exchange between existing NYAs with the two regional meetings (in Africa and Asia), and by inviting NYA representatives to meet before our 2014 AGM in Chile. A Worldwide Meeting of Young Academies is in preparation for 2015.

Photos: *left and center: GYA / Daystar University; top right: Ghanaian Young Academy; bottom right: Egyptian Young Academy of Sciences*



# 11

## Shaping policy on a global level

On 10 December 2014 the GYA delivered a letter to United Nations Secretary-General Ban Ki-moon that stressed the importance of science for achieving sustainability and poverty reduction. The letter, written in response to the report by the UN's High-Level Panel of Eminent Persons on the Post-2015 Development Agenda, contained five recommendations which aim to bolster the UN's ability to achieve the Post-2015 goals of sustainability and poverty reduction. The recommendations include:

1. **Adopt a strong definition of 'sustainability'** that includes environmental, social, and economic development and impact mitigation;
2. **Integrate science directly into the development agenda** by ensuring that actions taken to achieve every Sustainable Development Goal are based on the best evidence available.
3. **Embed science into multi-stakeholder discussions** to ensure the Post-2015 framework has the capacity to develop solutions whenever and wherever they are needed;
4. **Promote science as a tool for diplomacy and security** to provide both innovative, robust solutions for development and provide a bridge between cultures and nations around the world;
5. **Develop output goals for scientific investment** that include measures of progress towards development goals and how effectively outputs are utilized by policy-makers and transmitted to stakeholders.

This statement marks a new phase of work for the GYA. It represents the first time we pro-actively comment, deliver statements and give expert advice on topics of global importance through a UN agency. The recommendations capture the important role that science must play in forward-looking policy discussions. "Science and sustainability are interconnected" commented GYA Co-Chair Sameh Soror (Egypt) in explaining the overlap between science and development. Past Co-Chair Rees Kassen (Canada) concurred, adding - "science is essential to achieving sustainable development and poverty reduction, and these recommendations provide a roadmap for integrating science effectively into the Post-2015 Development Agenda".

Photos: left: Florian Wiencek / GYA; right: GYA





# 12

## Enriching national discourse on science

In 2014, the activities and influence of the GYA expanded not only globally, but also at a national level. This was particularly true in Germany, the host country of the GYA offices. The first in-person Executive Committee (EC) meeting took place in January 2014 at the Berlin-Brandenburg Academy of Sciences and Humanities (BBAW) in Berlin, bringing exceptional young scientists from many nationalities to the city to participate in local events. The meeting coincided with the „Sophie Charlotte Salon“, a yearly BBAW evening event aimed at introducing the public to the activities of the academy and its various partners. The GYA participated in a “speed-dating” session, where visitors to the Salon were able to hear from EC members about their perspectives on Europe and on research in other parts of the world.

We also supported a second BBAW event in September - “Mediated Worlds: Knowledge, Information and Communication in the Digital Transformations”. This symposium was organized by the Union of German Academies and Prussian Cultural Heritage Foundation as part of the German Science Year on „Digital Society“. and covered different topics on how the digital revolution changed not only our everyday life but also scientific communication and the way we find, collect and disseminate information.

The event was themed around the changes that the digital revolution has made not just to everyday life, but also to scientific communication and the way we find, collect and disseminate information. GYA member Sabina Leonelli (UK) participated in a panel on „Current Practices and Future Visions of Communication and Scientific Dialogue in the Digital Age“ by video conference, and contributed the perspective of a young scholar to the discourse on Open Science and Open Access. She introduced some of the opportunities and challenges of digital technologies and Open Science informed by her research, and by the 2012 GYA position statement „Making Open Science Possible“ (2012). Leonelli argued that easy access and exchange of data does not automatically increase the chances of new discoveries, and that data dissemination is dependent on the research context. The GYA office supported the event with live-tweets, which brought the event to an international community through social media engagement.

## About the Global Young Academy

As the “voice of young scientists around the world,” the GYA aims to empower and mobilize young researchers to address topics of global importance. Founded in 2010, the GYA has reached its full capacity of 200 members in 2014. Members are selected based on scientific excellence – in any discipline, from humanities to physics – and commitment to service and outreach. Each member serves a five-year term. The current co-chairs of the GYA are Sameh Soror (Egypt) and Eva Alisic (Australia). Heidi Wedel is the GYA’s managing director.

The academy is hosted at the Berlin-Brandenburg Academy of Sciences and Humanities in cooperation with the German National Academy of Sciences Leopoldina. The GYA is receiving core-funding from the German Federal Ministry of Education and Research since 2014, is supported by the IAP: the Global Network of Science Academies, and has received seed funding from the Volkswagen Foundation. The GYA has also benefitted from project funding from a variety of donors and partners.

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