Global Young Academy Wraps Up Very Successful General Assembly Meeting in Johannesburg, South Africa

With a program headlined by the South African Minister for Science and Technology, the Editor-in-Chief of *Science* magazine and other luminaries, the Global Young Academy (GYA) recently completed a very successful General Assembly meeting. The meeting, held in Johannesburg, South Africa, including 80 young scientists from 40 countries, distinguished senior scientists, and science administrators from around the world. With a theme of "Sustainability: Lessons on the road between Rio and Rio+20," the conference focused on concrete actions young scientists can take to advance a sustainable future. Additionally, the meeting included the founders and founding members of the South African Young Academy of Science (SAYAS), who convened an inaugural meeting to participate in the GYA assembly.

Minister Pandor reminded delegates that, "Rio+20 is an historic opportunity to define pathways to a sustainable future – a future with more jobs, more clean energy, greater security and a decent standard of living for all." Young scientists have a particular responsibility towards this, and much of this lies in the arena of engaging with the wider society and policy makers to promote an understanding of what is needed to achieve the goals of sustainability. Other speakers provided examples of how this goal can be accomplished.

Prof. Howard Alper (co-chair of the IAP: Global network of Science Academies and GYA Board Member) remarked, "Challenges of clean water and electricity for all are no longer a scientific challenge, they are a leadership challenge" and pointed out to the critical role that University-Industry partnerships can play in influencing leadership on these issues.

Prof. Helmut Schwarz (President of the Alexander von Humboldt Foundation and GYA Board Member) strongly promoted a focus on excellence and interconnectedness in scientific community to build the capacity needed to confront the complex global challenges. His call to 'fund excellent people, and fund them long term' resonated with the attendees.

Prof. Bruce Alberts (Editor-in-Chief of *Science* magazine and GYA Board Member) made a strong call to scientists to get more actively involved and to care deeply about science education. "The future of the world depends on it," he said. Current approaches that are focused on simply transmitting lists of facts, can bore children, and do not promote an understanding of how science works and what its value to society is. This needs to change urgently and scientists have a responsibility to get involved in changing educational approaches and perceptions.

This is exactly the aim of GYA. In addition to stimulating discussion and action in developing more effective strategies for young scientists to contribute to challenges in sustainability, the General Assembly meeting defined the GYA's new projects for the upcoming year. In brief, the following examples illustrate a few of the projects developed at the General Assembly meeting.

1. An inquiry-based science game for high school students was preliminarily translated into English before a world-wide rollout in other languages. The game was played and tested the day after the meeting with learners in a South African school with disadvantaged children.
2. Several conferences aimed at identifying best practices and creative approaches to science education and outreach along with frontiers in science were planned.
3. By coordinating regional meetings and other forums of exchange of experience GYA will continue to promote the establishment, development and cooperation of National Young Academies around the world.

4. A project aimed at defining how to measure academic creativity and scientific output was launched.
5. Statements drafted included both the importance of scientific outreach and education in achieving sustainability, and the crucial need for gender equality in scientific research. This includes an urgent call to re-evaluate the systems that promote or suppress these goals within the scientific community.
6. Expansion plans for the GYA's Young Scientists Ambassador program, which stimulates non-traditional scientific exchange and science-society engagement, were developed.
7. The GYA's statement on grant writing mechanisms was evaluated, and strategies for improving its impact were developed.

GYA members also exchanged their latest scientific results, including new discoveries and insights in quantum materials, open source information, green materials, and genetic analysis. Such science sessions drove the formation of new, interdisciplinary collaborations.

Running from 20-23 May 2012, the General Assembly meeting took place at the University of Pretoria, Gordon Institute of Business Studies (GIBS) in Illovo, South Africa. The Center's outstanding conference facilities supported the conference's goals. For example, a professional media studio was used to record short web videos promoting the GYA's goals, such as establishment of national young academies around the world. The GIBS atmosphere of friendly camaraderie and international collaboration supported the GYA's goals and the meeting.

On 24 May GYA members connected with researchers and the general public around South Africa. As examples, a 'Future of Chemistry' workshop was attended by 9 GYA members from 7 countries and University of Pretoria and staff and post-graduate students from four departments. A number of other seminars and collaboration meetings happened at UP, CSIR, NWU, Limpopo University, UJ, Wits and other research institutions. Three school outreaches engaged GYA members with schools in Soweto, Alexandra and Pretoria. The feedback is one of excitement and inspiration, both from GYA members and those they interacted with.

The GYA General Assembly was supported by the South African Department of Science and Technology (DST), IAP: Global network of Science Academies, the German Federal Ministry of Education and Research (BMBF), the Forestry and Agricultural Biotechnology Institute (FABI) and the University of Pretoria. The meeting was hosted by the South African Young Academy of Science (SAYAS), with support from the Academy of Science of South Africa (ASSAf). Several speakers represented the funders, including Prof Robin Crewe (ASSAf and UP), Mboneni Muofhe (DST), Andreas Künne and Maja Clausen (German Embassy in South Africa), Prof Hennie Strydom (Alexander von Humboldt Foundation) and Arne Leeflang (DAAD), pointing out numerous opportunities for scientific exchange and funding relevant to young researchers.

During the last day of the General Assembly, GYA members elected new leadership, including Prof. Rees Kassen of Canada and re-elected Prof. Bernard Slippers from South Africa to serve as Co-Chairs. Also elected at the meeting, the Executive Committee includes Amal Amin (Egypt), Bettina Speckman (Netherlands), Gabriela Montenegro (Guatemala), James Tickner (Australia), Julia Baum (Canada), Phil Gona (Zimbabwe/USA), Regina So (Philippines), Vidushi Neergheen-Bhujun (Mauritius) and Vinitha Thadhani (Sri Lanka). In addition, three members were selected by the EC to focus on specific strategic projects, including Jeremy Kerr (Canada), Michael Sutherland (UK) and Patrick Arthur (Ghana). The immediate past co-chair Gregory Weiss (USA) will also continue to contribute to this forum.

Newly elected Co-Chair, Prof. Rees Kassen, said, "I am honoured and thrilled to have the opportunity to work alongside so many excellent young researchers from all over the world committed to advancing science, science education, science outreach, and capacity building in developing countries."

About the GYA

In 2008 and 2009 the IAP: the Global Network of Science Academies in collaboration with the World Economic Forum (WEF) established a program to bring approximately 60 young scientists from across the world to the New Champions meetings of the WEF in China. During the first meeting in 2008 the young scientists issued a statement, highlighting their passion for science and for contributing to society through their vocation. Following on this, the young scientists attending the 2009 meeting envisioned establishing a GYA as both a contributor to solutions facing science and society, but also as an opportunity to enhance the quality of scientific research across the globe. In particular, the GYA would provide a voice to young scientists on international issues at the interface of science and society. The Global Young Academy was established and launched in February, 2010, and has grown to a well-represented (172 members from 54 countries) and internationally recognized body. The GYA's headquarters is hosted by the Berlin-Brandenburg Academy of Sciences in Berlin, Germany. Hired in October, 2011, Dr. Heidi Wedel serves as the Managing Director, and works in the Berlin office of the GYA. The GYA is governed by two elected Co-Chairs, currently Prof. Bernard Slippers (South Africa) and Prof. Rees Kassen (Canada) and an elected Executive Committee.

The GYA aims to provide a voice to young scientists; promote science as a career of choice for young people; narrow the gap between science in developed and developing countries; and encourage the development of novel approaches to problems of international significance. National Young Academies, which focus on such issues at the national level, have been established in Austria, Denmark, Germany, Japan, Netherlands, Nigeria, Pakistan, Philippines, Scotland, Sudan, Sweden and Thailand. A number of other initiatives in Africa, Asia, Europe, North and South America are under way to establish Young Academies.

Learn more at: http://www.globalyoungacademy.net/