Empowering Young Scientists

THE VANCOUVER OLYMPICS REVEAL STARK DIFFERENCES BETWEEN THE WORLDS OF SPORTS and science. In both, young people from around the world try to surpass all previous accomplishments in pursuit of world records or scientific discoveries. Selected entirely on merit, athletes receive honor just for participating in the games, spurring the next generation of young people in each nation to excel. And as star athletes age, they often support their sport in other ways, serving as advocates, mentors, or coaches. In contrast, in too many nations, the selection and promotion processes in science involve considerations other than merit. Senior scientists receive most of the resources available for scientific research, and young scientists rarely receive societal recognition for their work. This situation is growing worse as life expectancies and retirement ages increase, along with the average age for attaining scientific independence.* Perhaps as one consequence, science is typically not a top career choice. How many exceptional scientists around the world thereby go unrecognized, their talents allowed to wither away untapped? In an attempt to reverse such trends, a nascent "young national academies" movement has begun across the globe, and a new international group has recently been established to promote this cause.

A world that increasingly faces global challenges such as climate change, resource exploitation, and public health disparities must mobilize all of its talents, regardless of age, gender, or country of residence. In the interests of scientific and resource sustainability, such a world also should encourage the views and approaches of its best young scientists, who often tackle research problems in less conventional ways than do their older, more established peers.

More than 100 young scientists from 40 countries have now created an organization called the Global Young Academy (GYA) (www.globalyoungacademy.org), with the encouragement and support of senior scientists through the InterAcademy Panel for International Issues (IAP).** The GYA will unite talented young scientists from around the world: those around the age of 35 who are nominated by senior scientists in their own nations as likely future leaders. Membership, capped at 200, will be highly competitive, involving international peer review of nominations from national academies and similar organizations. Membership is temporary (4 years), to prevent the organization from becoming an "old academy."

This effort is modeled on the formation of national young academies, only a few of which have been established so far. Die Junge Akademie was the first, founded in Germany 10 years ago by the Berlin-Brandenburg Academy of Sciences and Humanities and the Leopoldina. Similar academies have been established in the Netherlands by the Royal Netherlands Academy of Arts and Sciences and in Sudan by the Sudan Academy of Sciences. They encourage and empower their members to engage in interdisciplinary research, communicate science to society, and provide advice on national science policies, especially those affecting young scientists. The GYA will help establish national young academies and provide a forum for young scientists in countries without such organizations.

Support for the GYA concept by the IAP and the World Economic Forum began in 2008 and led to the first planning meeting in February 2010 in Berlin, Germany. The GYA emphasizes bringing together young scientists from developed and developing countries to expand research capacity and exchange best practices in science policy and education. This effort aspires to advance communications between science and society and to build on the global spirit of the Olympics through productive and friendly international interactions.

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