

PURSuing THEIR HIGHEST AMBITIONS

THE ELSEVIER FOUNDATION, THE ORGANIZATION FOR WOMEN IN SCIENCE FOR THE DEVELOPING WORLD AND TWAS HONOUR FIVE EARLY-CAREER WOMEN RESEARCHERS FOR WORK THAT CAN SAVE LIVES AND INSPIRE A NEW GENERATION.

Shyampur is a small, impoverished village of about 20,000 people in north-eastern Bangladesh, and for up to five months every year, its lowland plains are covered in floodwaters. When Nasima Akhter was growing up, she would join fellow students on a boat to school during the rainy season, and because the science teachers had only limited experience, she would return home in the afternoon and put in long hours studying on her own.

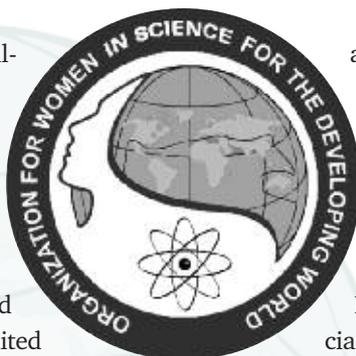
With that extra effort, Akhter won a place in a secondary school where she could study science, but it was at least a six-hour trip by train, bus or boat from Shyampur, so she had to stay with a relative instead. "It was a great challenge for me to go far away from my parents to study science at higher secondary level and then in medical college", she says now. "Each step was new and challenging for me, up to my doctoral study in Japan."

Dr. Akhter is one of five researchers in the medical

and life sciences who received the 2012 Elsevier Foundation Award for Early Career Women Scientists in the Developing World. The winners come from different regions, but all share a remarkable commitment.

Joining Akhter as winners were Namjil Erdenechimeg of Mongolia; Dionicia Gamboa of Peru; Huda Omer Basaleem of Yemen; and Adediwura Fred-Jaiyesimi of Nigeria. The awards were announced in February in recognition of research that has the potential to save lives.

The honour emerged from the efforts of The Elsevier Foundation, the Organization for Women in Science for the Developing World (OWSD), TWAS and TWAS's five regional offices. It included USD 5,000 and an all-expenses paid trip to the annual meeting of the American Association for the Advancement of Science (AAAS) in Boston. The winners received their prizes at the annual Women & Minority Scientists and Engineers





The award winners (holding certificates, from left): Nasima Akhter of Bangladesh; Huda Omer Basaleem of Yemen; Adediwura Fred-Jaiyesimi of Nigeria; Namjil Erdenechimeg of Mongolia; and Dionicia Gamboa of Peru. Surrounding them are, from back left, Shirley Malcom, head of education and human resources for AAAS; David Ruth, executive director, Elsevier Foundation; Mayra de la Torre, vice president, Latin American branch of OWSD; and Romain Murenzi, executive director, TWAS. [Photo courtesy of Elsevier Foundation]

Networking Breakfast organized by AAAS Education and Human Resources.

The winners said that the prize advanced their work and gave them the confidence and public visibility to encourage other young women to pursue work in scientific fields.

Erdenechimeg, of the Mongolian Academy of Sciences, won in the East and South-East Asia and Pacific region for her work on antibodies from the serum of rat blood. “In Mongolia, there are so many women scientists coming up, so there is a chance for women to achieve success if they have a passion”, she said in an interview with *Elsevier Connect*. “This award is inspiring and gives me a chance to be a role model for the young women who want to be scientists.”

The award for the Arab Region went to Dr. Huda Omer Basaleem of Aden University in Yemen for her work in the fight against cancer and for the health of women and children. Basaleem said the award gave her a chance to form new networks with other scientists and advance her ability to act as a role model for other women in her field. “I’m focusing on mentoring young scientists, especially females, to enroll more actively in scientific research”, she said.

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Dr. Adediwura Fred-Jaiyesimi of Olabisi Onabanjo University in Nigeria won in the Sub-Saharan Africa region for her research on the effects of plant extracts on blood sugar content and alpha-amylase. In work focused especially on two plants with fermented seeds that are used to spice soups and stews in West Africa, she determined that they block enzymes that digest starch and slow the rate at which blood sugar rises. “The award is going to help me a lot”, she told *Elsevier Connect*, “because what I get from the award I’m going to reinvest in my research.”

Dr. Dionicia Gamboa of the Universidad Peruana Cayetano Heredia in Lima, Peru, won the award in the Latin America and Caribbean region for her molecular research on the widespread diseases malaria and leishmaniasis. Gamboa has dedicated her career to researching how to better control diseases and understand the parasites that are circulating in tropical regions. Being a scientist in a developing country like Peru is difficult, Gamboa said; science is not a priority for the government, and that means local funding is scarce. However, the award has been a boon for her career, and she’s been invited to several conferences to give presentations on tropical



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medicine, including a AAAS conference in South America.

“It has had a huge impact for me”, Gamboa said. “I had a big interview printed in the most important newspaper in my country. People in my hometown and in the Amazon read it and sent me messages.”

At Kanazawa University Graduate School of Medical Science in Japan, Akhter did molecular research on Alzheimer’s disease using brain imaging on small animals. She was inspired to pursue a research career and managed to get her work published in journals such as *Nuclear Medicine and Biology* and the *European Journal of Nuclear Medicine*. Now she works at Dhaka Medical College Campus in Dhaka, Bangladesh, where she practices ultrasonography and nuclear medicine. Her job doesn’t leave much time for research, but she makes time where she can. Her award, reserved for a researcher from Central and South Asia, was given for advances in detecting fetal anomalies in early pregnancy and introducing a new method for treating hyperthyroid patients.

Akhter is currently also looking for ways to screen for fetal congenital disease using blood tests and ultrasounds, also looking for opportunities to conduct research in dementia. She called the award a great life achievement. “It has inspired me to keep my spirit up to contribute more in science, to continue my struggle to remain on the track to be a good researcher”, she explained. Since receiving the award, she also has felt empowered to encourage other women to become scientists.

“These five women are pioneers”, said Fang Xin, president of OWSD and head of the award’s selection committee. “They come from different regions and different cultures, but all of them are doing highly

advanced medical and life-science research. Their creativity and achievements will contribute to saving lives around the world, and that is sure to inspire a new generation of young women to pursue their highest ambitions in science and other fields.”

“If we hope to solve the challenges that confront developing nations, we must help young women in science to fully develop their skills and energy”, said Romain Murenzi, executive director of TWAS. “The winners of this prize will be an inspiration not only to other young women, but to all scientists of every generation.”

“The Elsevier Foundation recognizes how important professional visibility is to developing high-profile international scientific careers”, said David Ruth, the foundation’s executive director. “Through our New Scholars grant programmes, we strive to support early-career women scholars with mentoring, research retreats, professional visibility, child care, work-life integration and recognition programmes. The awards for these impressive women scientists represent a cooperative effort supported by Elsevier, OWSD, AAAS and TWAS to build research capacity and advance scientific knowledge throughout the developing world – and what better place than the annual AAAS conference to raise awareness among scientists, policymakers, journalists and the public about the need to retain and celebrate top women scientists.” ■

◆◆◆ Sean Treacy

The Elsevier Foundation produced a video featuring the 2013 prize winners [tinyurl.com/2013-elsevier-prize-video]. The 2014 awards will celebrate accomplishments in chemistry. The deadline for applications is 15 September 2013.