

# Ugandan scientists shine in Kigali

By Christopher Bendana

Two Ugandan scientists – Brian Turyabagye and Grace Nakibaala – showcased their scientific inventiveness during the Second Next Einstein Forum (NEF) in Kigali on Tuesday.

NEF is the largest scientific gathering on the continent.

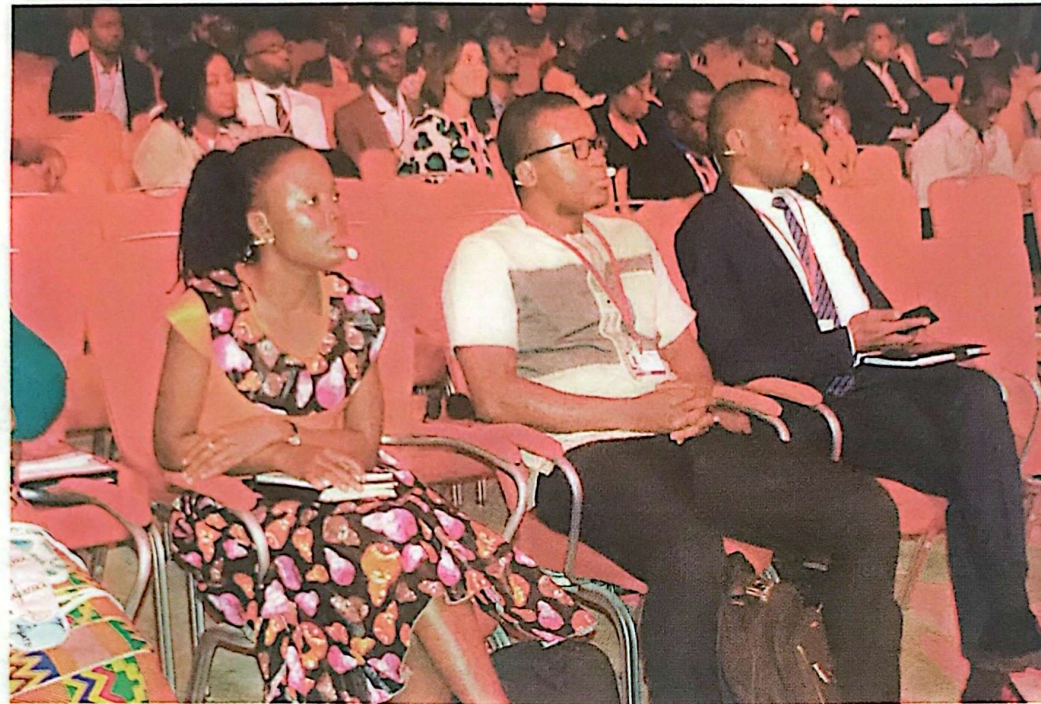
The two, part of the eight brightest innovators in Africa, showcased their products during a plenary session, "Conversation with Africa's Brightest" at Kigali Convention Centre.

Nakibaala, an architect and chief executive officer at INNOV ASEPSIS, showcased a pedaltap, a system where a water tap is opened by pedalling instead of using the hands. She said the technology was important in fighting infections at water points, especially among doctors who have to clean their hands after attending to each patient.

She said not only was the tap reducing infections at water points, but that it was also reducing water bills since there is no chance of leaving the tap flowing since the flow stops immediately the foot is taken off the pedal.

Turyabagye, a telecommunication engineer who runs SKYAPPS TECHNOLOGIES, showcased a jacket fitted with sensors that can provide vital signs of pneumonia, a virulent disease, especially among children. His project is a collaboration with Resilient Africa based at Makerere University in Kampala.

Speaking to *New Vision* on the sidelines of the conference,



Nakibaala (in *kitenge*) and Turyabagye (in suit) during the plenary. Photo by Christopher Bendana

Turyabagye said the jacket could be used by clinics and hospitals to detect the disease and refer patients to qualified personnel.

"We do not have experts to handle pneumonia in many hospitals," he said when asked about the importance of the jacket.

Turyabagye said they were awaiting approval from the Government to have the jacket on the market.

Earlier on, Justus Masa, a

**"Eighty-three percent of the students who go for advanced studies come back,"** President Paul Kagame

Ugandan electrochemist based at Ruhr University in Germany and one of the 19 NEF fellows, showcased how man will get energy from water in the near future.

The scientist ran electricity through water to produce hydrogen gas, which is energy fuel.

"The ultimate goal of my work is to enhance the amount

of energy harnessed from renewable energy sources by introducing advanced batteries and other electrochemical systems for energy conversion and storage, such as regenerative hydrogen fuel cells and metal-air batteries," he said.

Renewable energy has gained prominence as an adaptation measure as the world grapples with climate change caused by the increase in greenhouse gases in the atmosphere. Greenhouse gases are mainly

caused by the burning of fossil fuels.

President Macky Sall of Senegal, a presidential panelist on laying the groundwork for knowledge-led economics; policy and practice plenary, highlighted the importance of partnerships among the private sector, government and academia.

President Paul Kagame said Rwanda's had gained a lot from collaboration, especially in scholarships for advanced scientific studies.

"Eighty-three percent of the students who go for advanced studies come back," he said.

Seema Kumar from Johnson and Johnson, who have been supporting innovations in health, highlighted the importance of having women in science and said Science Week and initiatives such as NEF were a step in creating a new movement of scientists.

Launched in 2013, the forum is an initiative of the African Institute for Mathematical Sciences in partnership with Robert Bosch Stiftung. It is geared towards connecting science, society and policy in Africa to the world.

It sets to create a bunch of scientists at the level of Albert Einstein. He was a German-born scientist renowned for his works of gravity.

This year's forum will be held under the theme "Connecting Science to Humanity", with four sub-themes. The themes include connectivity, ubiquity and mobility; climate, energy, food and growth; precision health; and building Africa's scientific capacity.