

IITA scientist wins prestigious Illumina Greater Good Initiative Grant

[IITA](#) Molecular Geneticist [Ranjana Bhattacharjee](#) has won the 2022 prestigious Illumina Agricultural Greater Good Initiative Grant.

The “annual grant program recognizes research proposals that will increase the sustainability, productivity, and nutritional density of agriculturally important crop and livestock species.”



IITA Molecular Geneticist, Dr Ranjana Bhattacharjee, is the 2022 winner of the prestigious Illumina Grant.

A statement released by Illumina says, “We are proud to announce the 2022 winner of our annual Greater Good Initiative Grant—Dr Ranjana Bhattacharjee and the International Institute of Tropical Agriculture (IITA).” The statement highlighted that Bhattacharjee’s “work is helping to address food insecurities of low-income, food-deficit countries in Western Africa through the breeding of yams, a staple of diets in this region.”

Grantees receive Illumina products and services equal to 20 trillion **to page 3**

TAAT showcases new technologies to private investors



The Mineral Fertilizer Micro-dose Mechanization technology reduces arduous work and improves soil fertility.

The [Technologies for African Agricultural Transformation \(TAAT\)](#), a flagship program sponsored by the African Development Bank (AfDB), held its first TAAT investor forum virtually on 15 February. The event aimed to collaborate with private sector partners who can adopt proven innovative agricultural technologies to transform African agriculture.

Stakeholders that attended the virtual meeting included representatives from [IITA Business Incubation Platform](#), IITA-GoSeed, Nijji Group, and Dangote Rice.

AfDB Director of Agriculture and Agro-Industry, Martin Fregene, in his opening remarks, summarized TAAT and its achievements since inception. He noted that private investors should collaborate with TAAT to boost the impact of the program's technologies, saying, "TAAT is about technologies, scaling, and partnership. And that is why there is a need for the private sector to invest in TAAT."

He added that the economic motivation for scaling technologies and setting up a strong value chain for input systems, efficient distribution channels, and an efficient, profitable environment should attract more private investment.

The TAAT Cassava Compact displayed the Mobile Cassava Processing Plant technology to solve problems associated with expensive processing factories. They also showcased another technology, the Pro-vitamin A cassava varieties, which are resistant to diseases and pests and have a substantial economic advantage.

The Rice Compact exhibited improved and climate-smart market-preferred rice varieties and hybrids, which give high yield and good grain quality.

TAAT's Wheat Compact exhibited heat-tolerant wheat varieties that will improve yield. Another technology highlighted was the mechanized raised bed technology that facilitates crop management operation—planting, irrigation, fertilization, harvesting—and lowers production cost by reducing inputs, labor, and time.

The Orange-fleshed Sweet Potato Compact unveiled the Puree Technology that can reduce the use of wheat flour up to 60% in different baked and fried products. They also displayed the sweet potato silage technology, which can serve as a feed that will contribute over 60% of the total cost of production in a profitable dairy cattle enterprise.

The TAAT Maize Compact exhibited the Drought TEGO maize hybrids and Maize Lethal Necrosis (MLN) disease tolerant hybrids, which can ensure the stability and productivity of maize crops. The Compact also highlighted the Fortenza Duo chemical for seed treatment that

protects the maize crop against Fall Army Worm, a pest that destroys the maize crop.

Similarly, the Sorghum and Millet Compact showcased its Biofortified sorghum and millet varieties. These were developed with high iron content, are high-yielding, drought-tolerant, early maturing, and disease and heat tolerant. The Dual-purpose sorghum and millet variety, another technology showcased, has adverse effects on Striga weeds. The Compact also exhibited the Organic and Mineral Fertilizer Micro-dose for crop growth and productivity stimulation and the Mineral Fertilizer Micro-dose Mechanization technology that reduces arduous work and improves soil fertility.

In his closing remarks, Head of TAAT Clearinghouse [Innocent Musabyimana](#) said working better with the private sector will bring agricultural transformation across the continent. He noted that the private sector is an important vehicle that helps technologies reach millions of farmers across the continent. He added that the team would follow up on the private investors who expressed an interest in collaborating. *Contributed by Titi Ogundowole*



Some of the online participants at the TAAT showcase.

base pairs of data to support their projects. The annual program inspires critically needed research to increase “the sustainability, productivity, and nutritional density of agriculturally important crop and livestock species.”

Bhattacharjee leads research addressing tangible real-world food insecurity in the sub-Saharan region with a high rate of unmet needs. She is particularly pleased with the prospect of creating a community resource that will have sustained benefits for the future work of IITA and the broader yam community. Through discussions with other researchers, Bhattacharjee has already identified yam viruses as one area to focus on, which will be extremely helpful to virologists.

Bhattacharjee notes that because yam is considered an orphan crop that

is mainly important for smallholder farmers in West Africa (Nigeria being one of the largest producers of yam tubers), it receives significantly less recognition than other crops. “The kind of data generated from this will give yam a globally recognized status. This is not just a winning situation for IITA, CGIAR, or myself; it is a winning situation for yam, which will now be recognized as a global crop in terms of sequencing data that will be generated.”

IITA joins an exclusive list of winners, which now includes only three CGIAR centers—ICRISAT and ILRI, being the others. “I thank all the team members that have contributed towards this, directly or indirectly. We are excited that we can do the sequencing of so many yam species and genotypes and answer some of the questions we have

been asking together for years,” said Bhattacharjee.

Illumina launched the annual Agricultural Greater Good Initiative grants in 2011. The program selects a single winner and inspires critically needed research to increase “the sustainability, productivity, and nutritional density of agriculturally important crop and livestock species.”

Though this is an annual award, the sequencing will continue until the researchers conclude the proposal’s objectives, which could extend to multiple years. “And though Illumina is a private organization, all data derived from this work will be publicly available as part of IITA’s Open Access data,” Bhattacharjee concluded. *Contributed by Uzoma Agha*

STEP holds agri-competition to attract young students to agriculture

The Innovative Youth in Agriculture (I-Youth) project, implemented by [IITA](#) in partnership with Mastercard Foundation Young Africa Works, is extending agribusiness training to secondary school students in Kano, Kaduna, and Lagos states.

I-Youth, through the [Start Them Early Program \(STEP\)](#) component of the

project, over the last 18 months, devised several approaches towards attracting students to participate in various activities organized for them to learn modern agriculture in schools and identify career opportunities in the sector.

STEP in I-Youth adopted the hybrid model, which focuses on using the

younger youth as agents of agricultural transformation within the school system and in the communities in which they live. The approach is all-encompassing, with students, parents, schools, and the communities benefiting from the opportunities offered by STEP.

This approach incorporates e-learning using audiovisual materials for



Participating students writing the STEP Agri-competition qualifying examination in Lagos State.

foundational agriculture training and practical learning by establishing pilot enterprises at the schools and community levels. STEP also integrates extracurricular school clubs and youth outreach services through visits to successful agribusiness enterprises and firms, student competitions and debates, school farm open days, etc.

The student competition tagged “STEP Agri-competition” is the first of its kind in Lagos State and has become popular as I-Youth prepares to hold the competition’s final stage in March 2022.

The idea behind the STEP Agri-Competition is to attract voluntary participation of secondary school students to agriculture, change their perception, and attract the contribution of stakeholders in the sector towards promoting agriculture right from the secondary school level.

In recent times, corporate organizations, government, and other stakeholders in the education sector have organized and sponsored inter-school competitions to renew students’ interest in science-related courses. Agricultural science is one of the courses offered to students that require visibility through similar competitions.

Partnering with the Lagos State Ministry of Education, I-Youth rolled out an online application for secondary school students in Lagos State to apply for the competition. About 260 schools with 491 students registered across the six educational districts in the State.

After the preliminary selection stage, the organizers selected 60 students to participate in the second stage of the competition. Twelve students will compete at the final stage of the competition, while three will eventually emerge as overall competition winners.

The winners will be awarded attractive prizes which the students would use for self-development in agriculture.

I-Youth Executive Manager [Aline Mugisho](#) stated that the competition would propel the students into channeling deliberate efforts into identifying a career in agriculture, acquiring knowledge, and developing the right attitude towards agriculture. It will build resilience and determination to develop a mindset focused on agriculture research and development.

“The competition in Lagos State is a pilot phase. We are devising all means to ensure we change the perception of young people about agriculture. This competition will be extended to Kaduna and Kano states, and our dream is to make it a national competition like other competitions of its kind,” Mugisho stated.

Contributed by Adetola Adenmosun

Ilorin Trade Commission to collaborate with IITA on soybean export promotions

A team of Trade Promotion Officers from the Nigerian Export Promotion Council (NEPC), Ilorin, visited [IITA](#) on 17 February to discuss workable solutions to upgrade farm products produced for export by traders in Kwara State. The team was received by Deputy Director General, Partnerships for Delivery, [Kenton Dashiell](#), IITA Molecular Geneticist [Ranjana Bhattacharjee](#), and Capacity Development Office Head [Sougrynoma Zainatou Soré](#).



Mr James Ajayi of Nigerian Export Promotion Council presenting their goal.

NEPC Ilorin Principal Trade Promotion Advisor Tajudeen Olaoye and his Executive Assistant, James Ajayi, started by updating the IITA team on previous collaborations with the Institute in their previous capacities as Trade Advisors in Akure, Ondo State. They desire to harness the same collaboration efforts to benefit Ilorin traders.

In his opening remarks, Olaoye highlighted the zero-oil plan initiative developed by the Nigerian Export Promotion Council to boost foreign exchange earnings through non-oil products. He said, "There are about 22 products on our priority list to develop for export. An integral part of the zero-oil plan is the 'one state, one product' initiative. Soybean is the export product for Ilorin, and alternatively, cashew. We

are seeking partnership with IITA to train our farmer producers to maximize yield and harness modern methods of farming to meet the competitive pricing in international markets."

Ajayi added that of the 300 registered exporters in Kwara State, more than 100 are farmers already producing soybean for sale. However, their primary challenge has been competitive pricing in the international market. The team identified training of the state farmers and exporters as the major area of collaboration with IITA to penetrate the global market.

Dashiell, a soybean specialist in the 1980s and 1990s, assured NEPC Ilorin of IITA's support and partnership. Both parties immediately constituted a working

group to kickstart partnership plans and logistics to implement the team's goal.

The first step is to ensure that identified farmers can access training that they can utilize in the upcoming planting season to train their colleagues to reap the same benefits. The partnership already looks promising as the team revealed over a hundred exportable products from Kwara State alone.

The Nigerian Export Promotion Council is a Federal Government Agency responsible for developing non-oil products in Nigeria for overseas markets. They aim to diversify the economy of Nigeria through product development, capacity development, product standardization, and documentation.

Contributed by Folake Oduntan



Worldwide consumption of soybean is almost 11 million tons.

Take responsibility! Stop the spread of COVID-19!

Always clean your hands; practice physical and social distancing; wear face masks properly; avoid crowds and public places; keep a 2-meter distance from the next person; and practice general sanitation and hygiene.

Got a story to share?

Please send your story with photos and captions every Tuesday to iita-news@cgiar.org or Katherine Lopez (k.lopez@cgiar.org) and Uzoma Agha (u.gha@cgiar.org).

