



LAUTECH Nanotechnology Research Group
...Enabling Qualitative Research at the Smallest Scale

LAUTECH NANOTECHNOLOGY RESEARCH GROUP (*NANO*⁺) DECLARED AS THE LEADER IN THE BIOSYNTHESIS OF NANOPARTICLES IN NIGERIA.....Prof.

Enock Olugbenga DARE

The nanotechnology research group (*NANO*⁺) at Ladoké Akintola University of Technology, Ogbomoso, Nigeria has been described as a focussed, excellent, organized and highly productive leader in the area of biosynthesis of nanoparticles for diverse applications in the country. This was stated by the first Professor of Nanotechnology in Nigeria, Professor Enock Dare during the opening ceremony of a national workshop on the synthesis, characterization and applications of nanoparticles organized by the research group during 21-24 August, 2017. The workshop which drew participants from several Universities, institutes and governmental agencies was designed to draw the attention of researchers to new trends in the world of nanotechnology; with series of lectures delivered by experts and also hands-on practicals.

In his welcome address, the head of the research group, Agbaje Lateef, who is a Professor of Microbiology in the Department of Pure and Applied Biology of the University described nanotechnology as a game changer that would have positive impacts on research activities of scholars. He presented to the audience, the members of the group who had vast training in molecular biology, industrial microbiology, biotechnology, nanotechnology, toxicology, biochemistry, materials engineering, renewable energy and nanofabrication, which they deploy in nanotechnology research. He enumerated the achievements of the group that was formed on 4 September 2014; noting that members of the group have published twenty-two articles in this area in about two years, with the training of several undergraduate and postgraduate students. Also, the group collaborates with several researchers within the country as well as in South Africa and Saudi Arabia. He stated that the group had the ambitious vision of transforming LAUTECH to a centre of excellence in nanoscience and nanotechnology in Nigeria, a feat that demands for adequate funding of research by the government, industries and public spirited individuals. He therefore appealed to the owner states of Oyo and Osun to be rededicated to the funding of the University, so that the University which produced nine out of ten members of the group could be opened for academic activities without further delay, to serve the purpose for

which it was established. He informed the gathering that the group would venture into the organization of conference on nanoscience and nanotechnology in the nearest future.

In similar veins, the Dean of Faculty of Pure and Applied Sciences, Prof. O.M. Oni and the Dean of Faculty of Engineering and Technology, Prof. Kazeem Adebisi underscored the importance of nanotechnology in creating functional materials with improved efficiencies. The duo saluted the courage of the research group, that despite the challenges facing the University, it could still found itself to conduct cutting-edge research, and also to organize a national workshop to train and share their experiences with other scholars. In their separate goodwill messages, Prof. J.K. Oloke and Prof. A. Tijani attested to the steadfastness, commitment and excellent posture of the group, and admonished the members not to lose focus.

While declaring the workshop open, the Vice-chancellor, Prof. A.S. Gbadegesin, who was represented by the chairman, Committee of Provost and Deans, Prof. Gbade Oyediran gave kudos to the research group, particularly the leader of the group, Prof. A. Lateef for keeping faith with the University, and the tenacity to contribute to its growth and development despite the challenges that the University had faced in the last one year. He pledged the support of the University for the work of the group, and informed the gathering of the completion of construction of an ultra-modern central research laboratory for the University and the acquisition of some sophisticated analytical equipment that would aid conduct of research by scholars in the University. He used the opportunity to canvass for adequate and sustainable funding of the University, stating clearly that LAUTECH was blessed with dedicated and productive scholars.

In his keynote address titled ‘Nanotechnology as a sized powered harbinger for a sustainable “soft future”: Nigeria’s status, options and challenges’, Prof. Enock Dare of the Department of Chemistry, Federal University of Agriculture, Abeokuta took a voyage of basics of nanotechnology and its myriads of applications. He presented some of his works on the use of nanomaterials as skin patch in drug delivery, porous nanoclay for the treatment of water, applications of nanomaterials in the detection of counterfeit products, and in the separation of crude oil from water among others. He took a critical analysis of nanotechnology research in Nigeria, where he concluded that LAUTECH Nanotechnology Research Group, which was a late entrant, had surpassed several earlier efforts in some Universities and agencies, to emerge the leader in biosynthesis of nanoparticles in Nigeria, with track records of organization, web presence (www.nanotech.lautech.edu.ng) and top-notch publications. He advised researchers to

come out of their cocoons and embrace nanotechnology through multidisciplinary approach as demonstrated by the research group. He concluded his lecture by felicitating with the research group, and most especially, its head, Prof. A. Lateef for the incredible milestone achieved in a very short period of time.

The guest speaker, Dr. Lateef Gbenga Bakre of the Department of Pharmaceutics and Pharmaceutical Technology at Olabisi Onabanjo University, Sagamu spoke on the applications of nanotechnology in drug delivery. He demonstrated several ways through which nanotechnology could enhance performance of drug, reduce dosage and toxicity, as well as improving patient's compliance as slow release of drugs could be easily achieved. He concluded by stating that the country has a lot to benefit from nanotechnology by embracing the innovative research.

The workshop which was well attended drew large audience at the opening ceremony with several Professors, scholars, spouses and children of members of the group and students in attendance. The organizers also invited some selected students of LAUTECH International College to the workshop to familiarize them with nanotechnology. In addition, the programme witnessed award ceremonies to recognize some excellent students that had been trained by members of the group in the area of nanotechnology. The awardees are Adelere Isiaka Adedayo, currently lecturing in the Department of Microbiology, Federal University of Technology, Minna; Akinwale Abiola Saheed and Ojo Sunday Ayotunde. The participants at the three-day event were exposed to demonstrations involving the synthesis of silver, gold and silver-gold alloy nanoparticles using the extracts of kola pod, kola leaf, cocoa pod and cocoa bean, aside lectures by Dr. M.A. Azeez, Dr. O. Adedokun and Prof. A. Lateef on the 'Synthesis of nanoparticles', 'Characterization techniques of nanoparticles' and 'Applications of nanoparticles' respectively. The participants submitted that they had gained a lot from the workshop, which would be useful to them to infuse nanotechnology in their areas of specialty. The participants also interacted with agents of manufacturers of equipment, who had their products on display at the workshop. Further information on the research group can be obtained online at: www.nanotech.lautech.edu.ng.

