



DRI&D Bulletin

Directorate of Research, Innovation and Development

About the DRI&D

1. The Directorate of Research, Innovation and Development

The Directorate of Research, Innovation and Development is located in the office of the Vice-chancellor and directly under the Deputy Vice-chancellor (Research, Innovation and Development). The main responsibility of the Directorate is the development and advancement of the University's profile in world-class research, innovation and research training in an increasingly competitive environment within the country and at the international level. It will lead to the development and implementation of a research and innovation strategy for the university, and promote change in the quality, volume and impact of the world-class research outputs emanating from the Usmanu Danfodiyo University. It will also ensure effective partnerships and collaboration with local and international funders, industry and the public sector. The Directorate is headed by Prof. A. B. Muhammad, who is expected to report to the VC through the DVC RI&D. There are three units in the Directorate, headed by Mal. Ahmad Shehu (Linkages and Development), Dr. Ibrahim Malami (Innovation, Technology Incubation and Commercialisation), and Deputy Director (Research and Research Grants Management).

1.1 Roles of the Directorate:

- i. Provide academic leadership to all staff and students engaged in research and innovation.
- ii. Steer change in the quality of research outputs and innovations, and work with the Provost (s), Deans, Heads of Departments and all research active staff to grow the research income of the University.
- iii. Work with the departments and research groups to generate new opportunities for cutting-edge research relevant to the University's Research Strategic plan.
- iv. In collaboration with the Dean, Postgraduate School, oversee the expansion of PhD studentships, including looking for opportunities for Scholarships/grants for PhD programmes in the University.
- v. Work with the Dean of Students Affairs to promote research culture among the students
- vi. Maintain the highest standards of research governance, research integrity and meeting the reporting requirements of all research funders.
- vii. Assist the Research centres in the University in the realisation of the cardinal objectives of the centres and work towards establishing new ones based on the research focus of the university.
- viii. Lead the university's innovation and commercialisation strategies and development of

Editorial Committee

Mal. Ahmad Shehu	Chairman
Dr. Ibrahim Malami	Member
Dr. M. U. Imam	Member
Dr. M. A. Sajo	Editor

Staff of the Directorate



Prof. Yusuf Saidu
DVC (RI&D)



Prof. A. B. Muhammad
Director, RI&D



Mal. Ahmad Shehu
Head, Linkages and
Development



Dr. Ibrahim Malami
Deputy Director,
Innovation, Technology
Incubation and
Commercialisation



Mal. Bello Abubakar
Principal Assistant Registrar,
Directorate of RI&D

Intellectual Property (IP) working documents, and serve as an interface between the researchers/research groups in the university and relevant national and international IP regulatory bodies.

- ix. Foster collaboration and partnership with institutions and other relevant organisations within and outside the country with the objective of furthering the research focus of the university.
- x. Engage fully in the annual planning, ensuring that all research and innovation related activities are properly considered in line with the agreed strategy and set up measurable targets to track progress.
- xi. Work out strategic policies through the Alumni and Development Office to increase philanthropic giving for the overall development of the university.
- xii. Undertake any other duties that may be assigned to the Directorate from time-to-time by the Vice-chancellor and/or Senate.

2. Structure and functions of the Directorate

2.1 Structure

The DVC (RI&D) superintends over the affairs of the Directorate.

There are three units in the Directorate as follows:

- a) Research and Research Grants Management Unit.
- b) Innovations, Technology Incubation and Commercialisation Unit.
- c) Linkages and Development Unit.

2.3 Functions of the Directorate

The functions of the Directorate of RID include:

- a) Setting the research standards of the University;
- b) The setting of specific guidelines for research;
- c) Research grants administration;
- d) Patenting and protection of university's intellectual properties;
- e) Commercialisation/marketing of research output.

To facilitate the work of the Directorate, there are/will be desk officers from the bursary, registry and legal units of the university.

2.3.1 The Research and Grants Management Unit is/will be made up of two offices

a) Grantsmanship office is/will:

- i. Oversee the implementation of the strategic research policy of the University.
- ii. Strengthen research activities of the university by providing benchmarks and training staff on strategies for fundable research grants applications
- iii. Encourage staff in pursuing collaborative and interdisciplinary high impact research.
- iv. Assist staff in sourcing for world class indexed publications for the outlet of their publications and liaising with Editors of scholarly journals of the University in upgrading local publications outlets for international listings and indexing.
- v. Vet and recommend to the Vice-chancellor through Research and Publication Committee applications for research grants from the university research funds and other funds that are issued through the university.
- vi. Assist researchers to improve their research proposals and find potential funders for their projects.

b) Grant Monitoring Office will:

- i. Provide effective monitoring and evaluation of all research grants within the university.
- ii. Ensure that the grants are implemented based on the terms and conditions of the granting bodies.
- iii. Ensure that the grantees meet the reporting deadlines.
- iv. Facilitate the publications of research outputs in high impact factor, indexed journals.

2.3.2 Innovations, Technology Incubation and Commercialisation Unit

The activities of this Unit will be/is largely dictated by the guidelines provided by the National Office for Technology Acquisition and Promotion (NOTAP). There will be two main Offices under this Unit.

a) Intellectual Property Office: Currently, Usmanu Danfodiyo University is one the universities in which NOTAP has established the Intellectual Property Technology Transfer Office (IPTTO), with the objective of promoting interaction and strengthening linkages between the university and Industries.

The office will therefore:

- i. Develop the capacity and interest of researchers/research groups in Intellectual Property (IP) generating research.
- ii. Encourage the creation of novel techniques, technologies, products and businesses emanating from the university's original research projects, worthy of earning IP rights.
- iii. Facilitate patenting/licensing of intellectual property right.
- iv. Liaise with the Intellectual Property and Technology Transfer Office (IPTTO) on behalf of the researchers.
- v. Advise and receive reports of inventions from the University Research Community.
- vi. Perform due diligence review on new invention disclosures.
- vii. Showcase through a periodic exhibition of Research output from the University either within the University or partaking in those organised by other relevant bodies.

b) Commercialisation Office: This will be in conjunction with the Directorate of Investment.

- i. Coordinate the preparation of feasibility studies to confirm the economic viability of the inventions and provide relevant information for entrepreneurs and financiers.
- ii. Stimulate technology incubation of new inventions in collaboration with the Centre for Entrepreneurship.
- iii. Coordinate the establishment of pilot plants/projects to demonstrate the feasibility and economic viability of the results of the inventions.
- iv. Work out strategies for sourcing funds for the commercialisation of the invention.
- v. Work out strategic marketing plans for the commercialisation of the invention.
- vi. Ensuring the participation of the office at all relevant trade fairs/exhibitions to gather technological information.
- vii. Provide incentives to and challenge the departments, faculties and centres to generate IPs from their original research and showcase them within and outside the country.
- viii. Create a stock of commercially viable knowledge-based

products emanating from the University.

ix. Coordinate researchers to attract contract research from corporations, industries, governments and others organisations.

x. Disseminating viable information on R&D results to the public through newsletters, and advertisements in both electronic and print media.

2.3.3 Linkages and Development Unit

The Unit will work in teams, in collaboration with Alumni Office. Each of the teams will cover particular support functions. These will include:

i. Research Team, which will be responsible for gathering information on potential and existing donors.

ii. Proposals Team. The Team will be responsible for putting together the proposals and project information that will be presented to the identified potential donors.

iii. Gift Team which will record and process donations received by the University.

iv. Database Team: The team will provide support to the Development office of the Directorate in terms of documentation, in collaboration with the other teams.

v. Donor Relations Team: this team will ensure that donors are appropriately thanked and appreciated.

3. College/Centre/Faculty/Institute/School Research Committees

Faculties, Colleges, Centres, Institutes and Schools in the University shall have respective research committees which report to the University Ethics committee. The committee shall:

a) Receive applications from researchers in their respective units and forward same to the University Ethics committee for review.

b) Receive applications for funding from prospective researchers in their respective units and forward same to the grants management office for grant matching.

c) Receive feedback from the University Ethics committee on behalf of researchers in their respective units.

d) Ensure strict compliance with approved research protocols for researchers in their respective units.

e) Report cases of misconduct or alterations of approved research protocols to the University Ethics committee.

f) Keep records of Unit/Faculty research, funding and copyrights;

g) Keep updates on the profiles of researchers.

h) Submit annual reports of up to date publications in reputable

channels & citations for staff to the Directorate of RID in December.

3. College/Centre/Faculty/Institute/School Research Committees

The College/Centre/Faculty/Institute/ School Research Committees shall comprise the following:

a) The Provost, Dean or Director of the relevant unit acts as Chairman;

b) All Heads of Department in the relevant unit;

c) Faculty Research officer (with a PhD and should not be below the rank of Senior Lecturer);

d) All Professors and Associate Professors in the relevant unit.

4. University Ethics committee

The university shall have an ethics committee that will oversee the conduct of research and ensure adherence to research guidelines, as follows:

a) Applications to conduct research within or outside the university by a staff or student of the university shall be received and scrutinised by the committee on behalf of the Directorate of RID.

b) Ensure that all research activities in the university adhere to the university research policy and approved guidelines

c) Promote the conduct of research in the university in line with global best practices.

d) Ensure that all researches conducted within the university meet basic ethical and safety standards

e) Review ethical standards of all research proposals in the university, issue ethical approval and certificates and monitor the execution of researchers in line with approved protocols

f) Have authority to seek clarification and modification of proposals to meet ethical standards or approve deviations from already approved protocols with a view to promoting ethical standards.

g) Organise training on research ethics for both staff and students of the university

h) Draw up institutional guidelines for experimental animal care and use

i) Report on the state of the university research infrastructure to the Vice-chancellor periodically.

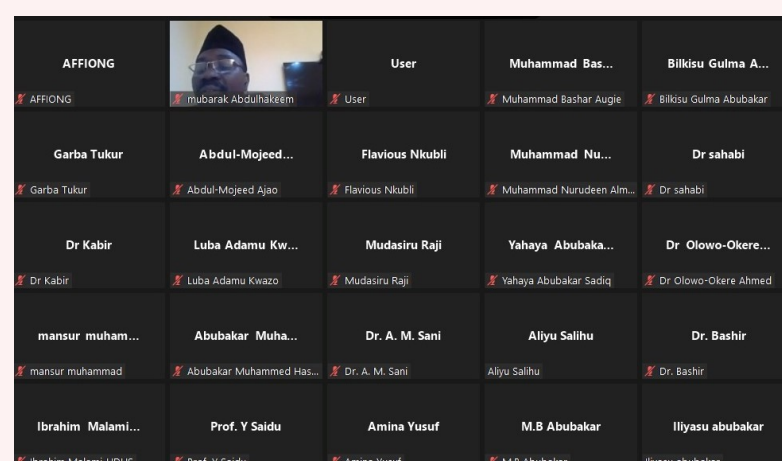
Report cases of research misconduct to the University for further necessary action and submit quarterly reports of research activities to the Directorate of RI&D.

Activities of the DRI&D

DRI&D organizes webinar

The DRI&D has hosted a webinar on the topic "A guide on writing a fundable concept note". The webinar, which was held on the 29th of March 2023 aimed at guiding university researchers toward writing a quality and competitive concept note proposal. The webinar, which was hosted by the Director of DRI&D Prof. A.M Bayawa witnessed presentations

from Prof. S. O. Bello as the lead speaker and Prof. T. K. Baba, Dr. M. U. Imam and Dr. M.A Rufa'i as the contributors.



UDUS inaugurates first indigenously developed COVID-19 DNA-based vaccine candidate for preclinical trials



Prof. L. S. Bilbis, Arc. Sonny S.T. Echon, and Prof. Tanko Ishaya (L-R) during the presentation of S/N3T CorVac at the New Auditorium, Usmanu Danfodiyo University Teaching Hospital, Sokoto.

As part of the University's mission and vision in strengthening its research activities, Usmanu Danfodiyo University Sokoto presented the first indigenously developed COVID-19 DNA-based vaccine candidate for preclinical trials under the TETFund mega research cluster on vaccine development. The inauguration, themed "Presentation of an indigenously developed TETFund-sponsored COVID-19 vaccine candidate for preclinical trials" was held on Monday 30th January 2023 at the New Auditorium, Usmanu Danfodiyo University Teaching Hospital, Sokoto. Prof. L. S. Bilbis, the Vice-chancellor of the Usmanu Danfodiyo University Sokoto formally presented the code named "S/N3T CorVac" COVID-19 DNA-based vaccine candidate to the Executive Secretary of TETFund, Arc. Sonny S.T. Echono for preclinical trials. In his address the Vice-Chancellor highlights the ability of indigenous scientists to solve the nation's problems using home-grown resources and state-of-the-art facilities to rapidly develop vaccine candidates.

Other TETFund NRF-sponsored related high-impact projects highlighted in his address include a successful design and constructs of recombinant DNA vaccine targeting all the lineages of the Lassa virus circulating in Nigeria. Prof. L. S. Bilbis further highlight the need for additional funding for the project, provision of high-impact solar project intervention to the CAMRET and the University's state-of-the-art research centre (CAMRET) and a few others as training centres for postgraduate and postdoctoral fellows as an alternative to overseas training.

The mega research cluster under the auspices of TETFund, a Vaccine Development Consortium comprising the Usmanu Danfodiyo University Sokoto (UDUS) in collaboration with the Nigerian Institute for Medical Research and Training (NIMR), National Veterinary Research Institute (NVRI), University of Jos and National Research Institute for Chemical Technology (NARICT) secured a grant of four hundred and fifty million Naira (450,000,000.00) to undertake a research project on "Accelerated development of COVID-19

DRI&D holds its 1ST AND 2ND Annual Research, Innovation & Development Lecture

As part of the DRI&D efforts towards supporting university researchers and research activities to improve the visibility of the University, the DRI&D held its first and second annual lectures for the year 2023. The lectures, which were held on 12th January, 2023 witnessed two different lectures on the External Culture and the Contemporary Nigerian University System by Prof. M. A. Akanji, FAS (Department of Biochemistry Kwara State University, Malete) and The Dynamics of Publishing in High Impact Journals: The Way Forward for Usmanu Danfodiyo University by Prof. A. S. Sambo, OON (Faculty of Engineering and Environmental Design, UDUS). The occasion was hosted by the Vice-chancellor Prof. L. S. Bilbis and chaired by the former UDUS Vice-chancellor, Prof. A. S. Mikailu. The event brought together the Vice Chancellor of Federal University Gusau, former UDUS Vice-chancellor Prof. R. A. Shehu, university Dons, Deans and Directors, and the academic community.

DRI&D news

VC inaugurates Standing Committee on Innovation Technology Incubation and Commercialization



A cross-section of Principal Officers and Committee members during the inauguration at the VC's Complex.

The Standing Committee on Innovation, Technology Incubation and Commercialisation has been inaugurated on Friday 31st March 2023 by the Vice-chancellor Prof. L. S. Bilbis at the Senate Chambers. Speaking during the inauguration, Prof. L. S. Bilbis charge the Committee with coordinating talent search by identifying

innovative ideas as well as existing or new technologies within and outside the university community. In his remarks, the Chairman of the Committee Prof. A. S. Sambo, OON thank the VC for the confidence bestowed on the Committee to carry out the task and assured that the Committee will do everything possible to deliver its mandate.

Members of the Committee are listed below:

Prof. A. S. Sambo, OON	Dean, FEED	Chairman
Prof. A.B Muhammad	Director, RI&D	Vice Chairman
Prof. A. S. Abdullahi	Dean, Postgraduate School (PGS)	Member
Mal. Ahmad I. Chafe	Director, Management Information Services	Member
Prof. Muazu Musa	Director, Sokoto Energy Research Centre	Member
Prof. Maryam A. Koko	Director, Centre for Entrepreneurship Dev.	Member
Prof. M. M. Maishanu	Director, Directorate of Investment	Member
Mal. Ahmadu Shehu	Director, Linkages and Development	Member
Dr. Ibrahim Malami	Deputy Director, IT&C	Member
Prof. Aliyu Jibril	Faculty of Veterinary Medicine	Member
Dr. M. Y. Abubakar	Faculty of Agriculture	Member
Dr. Nura Akilu	Faculty of Management Science	Member
Dr. Amina Yusuf Jega	Faculty of Pharmaceutical Sciences	Member
Dr. Ibrahim Saidu	Faculty of Engineering and Environmental Design	Member
Dr. Andrew Onu	Faculty of Science	Member
Dr. Umar Zagina	Faculty of Engineering and Environmental Design	Member
Mal. Muntaka Mukhtar Bube	Management Information Services	Member
Mal. Bello Isah Kaura	Faculty of Basic Clinical Sciences	Member
Mal. Atiku Abubakar Nuhukoko	Sokoto Energy Research Centre	Member
Mal. Bello Abubakar	Directorate of RI&D	Member
Mrs. M. K. Dennis	Registry Department	Asst. Secretary

DRI&D receives a monitoring team from NUC



Prof. Yusuf Saidu, Prof. L. S. Bilbis, Abubakar M. Girei, Mohammed S. Abubakar and Roseline Anyachukwudinarum (L-R) during a courtesy visit to the Vice Chancellor

A team from NUC has paid a courtesy visit to the Vice-chancellor Prof. L.S Bilbis during the office hour at the Vice-chancellor's office. The monitoring team were in the university to undertake a monitoring exercise to assess the status of research and collaboration activities in the Nigerian University System (NUS). The exercise aimed to determine the extent Nigerian universities are making progress in research and collaboration and generate information that would assist the NUC in its efforts to revitalize research activities in the NUS. Subsequently, the university research centres were monitored by the team and were led by the Director of DRI&D. The research centres inspected by the team include CASLaC, Sokoto Energy Research Centre, CAMRET and Institute

of Urology & Nephrology.

UDUS Researchers Won a TETFund NRF Research Grant

UDUS have won the highest number of TETFund NRF grant in Nigeria with a total of sixteen (16) grants in various field. Below is the list of grant awardees for 2022:

Name	Department	Project
Prof. A. B.Yabo	Zoology	Design and Evolution of Virtual Laboratory Procedures for Nigeria Tertiary Institutions
Dr. M. U. Imam	Medical Biochemistry	Development of a Rationally Design Specific Antivenom Targeting Carpet Viper Snake (Echococellated) Toxins Using Recombination DNA
Dr. Andrew Onu	Biochemistry and Molecular Biology	Development of a point of care flow strip assays for identifying medically important snakebite envenomation in Nigeria
Dr. M. AGado	Sociology	An analysis of the trends and impacts of organised violence and crimes on security and national security
Dr.Nasiru Suleiman	Vet. Physiology and Biochemistry	Development of novel therapy for the management of ischaemic stroke using Sesame indicus extract combined with some repurpose drugs
Dr. B. A Adebowale	Economics	Analysis of the impact of financial inclusion and innovation among women on disabilities (WWDs) in Northern Nigeria
Dr. A. I Mobolawa	Pharmacology and Toxicology	Preclinical studies of and standardization of extract/fraction of Carallumadalzielli as anti-cervical cancer therapy
Dr.Roko Abubakar	Computer Science	Deepfake video detection using three stream convolutional neural network
Dr. A. O Jimoh	Pharmacology and Therapeutics	Investigating C-cells immune amnesia in unravelling the mystery of Hepatitis B vaccine non-response
Dr. Mohammad Yahaya	Medical microbiology and parasitology	Molecular epidemiology of recurrent cholera outbreaks in Nigeria
Prof. I. A Mungadi	Surgery	Genetic characterization of clinical correlation and quality of life of people living with disorders of sex development (Intersex)
Prof. S. I Funtua	Biochemistry and Molecular Biology	Fabrication of machinery for production of ready to use therapeutic food for treatment and prevention of malnutrition in Nigeria
Dr.Aminulshaka	Medical Biochemistry	MoringaOleifera-fortified rice bran product as therapeutic food malnourished children
Prof. R.S.U Wasagu	Biochemistry and Molecular Biology	Evaluation of food fortification programme in Nigeria for effectiveness: A case study in North Western States
Prof. M.S Salihu	Political Science	Governance Deficit: Banditry and crisis of development in Northwest Nigeria
Dr. Musa Muazu	Sokoto Energy Research Centre	Development and characterization of a Novel Reinforced Au-Cr-Al matrix composite for solar thermal applications

Funding opportunities

Seed Grant for New African Principal Investigators (SG-NAPI)

The SG-NAPI aims to support early-career scientists in Sub-Saharan Africa, with particular emphasis on Least Developed Countries (LDCs). The deadline to apply is 24th April 2024. For more information on how to apply please visit: <https://twas.org/opportunity/seed-grant-new-african-principal-investigators-sg-napi>

Upcoming DRI&D events

The Directorate of Research, Innovation and Development, Usmanu Danfodiyo University, Sokoto is inviting you to a scheduled Zoom webinar. Topic: Building track record and research visibility: a guide for young researchers



Join Zoom Meeting
<https://us06web.zoom.us/j/372657592>
 pwd=bkphOTVGRFRYYzMzTE9W
 SnMvREwrQT09
 Meeting ID: 372 657 5912
 Passcode: t77kes

@ZOOM
 Meeting ID: 372 657 5912
 Passcode: t77kes
 MAY 10, 2023
 11:00 AM WAT

TETFund NRF Grant Cycle 2023

DRI&D is calling the attention of the University Research Community that the TETFund NRF call for concept notes for the grant cycle 2023 is open to researchers in any of the Nigerian public tertiary institutions. The submission portal is open and the deadline for submission via the portal is April 17, 2023. All submission of concept notes is via <https://nrf.tetfund.gov.ng/>

The Einstein Foundation Award for Promoting Quality in Research 2023

The Einstein Foundation Award for Promoting Quality in Research calls for nominations and applications in different categories of awards: Individual, Institutional, and Early Career Award. The call is open until April 30, 2023, 10:00 pm UTC. For more information on how to apply please visit: <https://www.einsteinfoundation.de/en/award/>

The RSTMH 2023 Early Career Grants Programme

The Royal Society of Tropical Medicine and Hygiene (RSTMH) welcomes applications from early career researchers and global health professionals based anywhere in the world, who have not had research funding of £5,000 (GBP) or more in their name before. This scheme offers grants of up to £5,000 (GBP) to projects on any topic related to tropical medicine and global health. The deadline for applications is 28 April 2023. For more information on how to apply please visit: <https://www.rstmh.org/grants>