



Research in the University of Nigeria Nsukka
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Director of Research

Research directorate

- UNN has a fully functional Research Directorate that provides leadership and stewardship on matters concerning research in the University
- It is headed by a Director
- There are also Research Units at Departmental and Faculty levels

Research groups: UNN has 166 Functional research groups, based in different Academic units of the university

Faculty/Center/Institute base of coordinator	Numbers of active research groups
Agriculture	15
Arts	7
Basic Medical Sciences	6
Biological Sciences	18
Business Administration	5
Education	6
Engineering	11
Environmental Studies	8
Health Science and Technology	9
Law	3
Medical Sciences	25
Pharmaceutical Sciences	9
Physical Sciences	17
Social Sciences	10
Veterinary Medicine	6
Vocational and Technical Education	2

Research ethics committees

Four (4) UNN Research Ethics Committees

- 1. Research Involving Animal Subjects: Animal Research Ethics Committee**
- 2. Research involving human subjects: Human Experimentation Ethics Committee (HEEC)**
- 3. Biological Safety Committee**
- 4. Radiation Safety Committee**

Collaboration and internalization

- Alliance of African Partnerships
- Science academies and councils
- Many leading African universities including University of Cape Town, University of Ghana etc
- Many European universities including the University of London etc
- Many North American universities e.g. University of North Carolina, Michigan State University (MSU), Duke University etc
- Chinese Universities Collaboration
- ETC

Research projects (more than 200 ongoing): examples

- Efficacy of Biochar in ammonia reduction from poultry houses.
- Climate Change Vulnerability and Adaptation in Riverine Communities of Southern Nigeria
- Production of extruded films with either raphia, cassava cortex or peels as adjunct
- Design, construction and performance evaluation of an integrated solar pv-powered solar dryer for drying of agro produce in Nigeria
- Diversity, food, nutrition and medicinal importance of some selected less-known African indigenous tropical plant species: Advocacy for global research attention.
- Religion and pandemics: interrogating Christian/Muslim responses to COVID-19
- Engaging and managing the application of human language in an appropriate manner to provide solutions to different societal challenges emanating from malapplication of language use.
- Functional characterisation and polymorphism analysis of vaccine antigens in *Schistosoma haematobium* from Nigeria
- Isolation characterization and improvement of oleaginous microalgae, yeasts and filamentous fungi for biodiesel oil production
- Renewable waste plant for biofuel production, high gravity brewing, enzymology, molecular biology, yeast fermentation
- Molecular evaluation of KDR mutation-associated insecticide resistance among anopheline vectors of malaria in south eastern Nigeria.
- Stemming the Tide of Microfinance Bank Failures in Nigeria for Sustainable Microbusiness Development: A Pilot Study of Enugu State

Examples of research projects CONTD

- **Development of Tourism Industry in Nigeria, “A Marketing Implication”**
- **Development and Validation of Robo-Essay-Grader (REG) Software for the Assessment of Secondary School Students' Essay Writing**
- **Urban Health Systems Research Programme Consortium**
- **Understanding and eliminating corruption in health sectors in Nigeria and Malawi**
- **Addressing unmet need for contraceptives among adolescents in Ebonyi state, Nigeria using community-embedded interventions**
- **Development of Energy Conversion Systems, Energy Performance Research on the Built Environment and Energy Carbon Footprint Mitigation Strategies.**
- **Development of a Road Maintenance Model (RMM) Using Geographic Information Systems for Road Maintenance in Nigeria**
- **Early Warning for food security for Nigeria using NigeriaSat-1 and other Satellite Data**
- **Processing and packing of herbal teas from local available herbs for diabetes and other associated effects with immune boosting capacity**
- **Production of suitable novel pharmaceutical excipients from gum extracts of admixtures of *Hibiscus esculentus*, *Irvingia gabonensis* and *Prosopis Africana***
- **Promoting positive masculinity for sexual and reproductive health and rights and gender equality in informal settlements in selected cities in sub-Saharan Africa**

Accessing Research Grants

WHY RESEARCH AND WHY MUST RESEARCH BE FUNDED? (Oselebe, 2016)

- Research is designed to solve problems for mankind.
- There is a very large amount of fund going into research all over the world.
- It is highly likely you will need to apply for funding
- Possible additional requirements (e.g. progress reports) for funding renewal or to release all the funding
- limited funding vs Increasing competition
- only individuals with the best ideas that can transform into solutions deserve to receive funding for research

Why write a research proposal?

- **For Grantseeking**
- Generate evidence for policy making or for strategic planning
- Contribute to current conversations and debates
- Respond to a call for proposal
- For undertaking undergraduate and postgraduate projects
- To generate data for publications
- Answer critical questions bothering the scientist or researcher
- Hobby
- Etc

Getting money and other resources to support a research project: Grantseeking

Grantseeking is also called Grantsmanship

Grantsmanship is a mark of a serious academic!

Grantsmanship is the art of acquiring research funding

- It is the term used for the ability to secure grants to support research projects
- For funding of full research proposals
- No money, no research
- Where can we get funds and other support from?

Key considerations for accessing research grants

1. Quality of Letters of Inquiry (LOI) or Expression of Interest (EOI)
2. Quality of initial concept proposal
3. Quality of full research proposals
4. Quality and reputation of the research team
5. Institutional factors (quality and reputation)
6. Leader(s) of the Research team (group) or PI factors

Identifying appropriate research funders

- You have to be a great and active hunter of research grants
- You should subscribe to newsletters in your disciplinary area – many funding opportunities are made in such newsletters
- You should belong to email lists of your professional association - many funding opportunities are made in such email lists
- You should be actively searching the internet search (set up alerts)
- Specific websites such as Research Africa that have information on available research grants
- Postgraduate/ Research Office announcements

General Sources of research funding

- **Internal university funding**
- **University alumni**
- **Corporate-sector organisations**
- **Government agencies**
- **Bilateral/ multilateral**
- **International**
- **Research councils**
- **Professional societies**
- **Institutional linkages, e.g Alliance for African Partnership (AAP)- linkage between UNN, Michigan State University and other African Universities**
- **Etc**

Some specific sources of funding for research in Nigeria/ for Nigerians

TERTIARY EDUCATION TRUST FUND (TETFund)

<https://tetfundserver.com/>

info@tetfund.gov.ng

- **Institutional based research (IBR) – maximum of 2 million Naira per grant**
- **National Research Fund (NRF) – maximum of 60 million Naira per grant**
- **Special intervention funding – no maximum**

Other major sources of research funding

- **Central Bank of Nigeria**
- **African Development Bank (AfDB)**
- **Research Foundations**
- **United Nations Economic Community for Africa**
- **Several other multilateral and bilateral organisations depending on interest and disciplinary focus of the researchers**
 - **World Health Organisation**
 - **The World Bank**

Major research funders outside Africa

- **Thousands**

- International Development Research Consortium (IDCR), Canada
- Bill and Melinda Gates Foundation
- Wellcome Trust, UK
- NIHR, UK
- Medical Research Council (MRC), UK and SA
- FCDO (DFID)
- European Union/European Community
- National Institutes of health (NiH) (US)
- ETC

Online sources of information on research grants

- ***Research Africa** is the definitive source of information about sponsors of African science and development research funding programmes, and brings you details of all their calls for applications for funding

<http://info.researchprofessional.com/research-africa/>

- <https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities>
- **RUFORM** [RUFORUM – The Regional Universities Forum for Capacity Building in Agriculture \(wordpress.com\)](http://ruforum.wordpress.com)

<https://ruforum.wordpress.com/>

- **UNN Announcer**
- Announcements by the UNN Research Directorate
- Other online sources

Key considerations for accessing research grants
– the principal investigator, team, the base
institution and the proposal

- **The principal investigator**
- **The team**
- **The base institution**
- **The proposal**

- 1. A good research base – Research groups/units with optimal levels of staff/researchers**
- 2. Short to long-terms strategic plans (formal or informal) on writing and winning grants for sustaining research groups and interests**
- 3. Supportive external networks and linkages (outside immediate institution)**
- 4. Collaboration with decision (policy) makers and other users of research outputs**
- 5. Careful recruitment and mentorship of talented researchers: talent and dedication are important keys**
- 6. Applying for grants as part of a research consortium**

The team (2)

- 1. Internal (and also external) peer reviews before submission**
- 2. Top quality and timely outputs and reputation (must meet deadlines in reporting)**
- 3. Relevant of team members to the research proposal**
- 4. Good publication history of the team, especially the PI in the focus area of the proposal**
- 5. Formal and informal capacity development of all members on proposal writing and communication of research outputs**

The leader(s) of the team/PI

1. Dedicated PI working from the front and willing to sacrifice leisure & other activities to focus on the proposal(s)
2. Good ability to network (conferences etc) and form international research alliances
3. **Active search for funding opportunities**
4. Openness of the PI in informing team members about opportunities, working with them and paying them well
5. Winning grants as a team (Research Group) – different PIs, but credited to the group
6. Mentorship – building younger researchers to become PIs
7. **Responding to all the points/questions that were raised in call to proposals**

The leader(s)- (2)

- 1. Contributing to current scientific conversations**
- 2. Good knowledge of existing literature and inclusion of important ones in the proposals**
- 3. Excellent conceptual/theoretical frameworks and study methodologies**
- 4. Careful formatting of proposals: grammar, budgeting work-plan**
- 5. Formal and informal Capacity development on proposal writing and communication of research outputs**

The research proposal for grant Application

- It is the most important instrument for getting your research grant
- It outlines what you are going to do, how and why
- A well-written proposal or grant application is critical in convincing your potential funders
- There is no one standard format of a research proposal
- There are differences between a research proposal submitted for a postgraduate degree and that submitted for funding
- Writing the proposal is an iterative process

Oselebe (2016)

Sections of a good proposal – an example

- Title
- Introduction: background/justification (rationale)
- Research questions
- Aim and objectives
- Literature review – theoretical and empirical
- Theoretical and Conceptual frameworks
- Research methods
 - Context of research
 - Study area
 - Study design
 - Sampling and sample size (inclusion and exclusion criteria)
 - Data collection tools
 - Plans for data analysis
 - Plans for research communication (research uptake strategy)
 - Ethical considerations
- Timelines
- Budgeting

Akin Abayomi (2019) Planning, Skilling and Advice for
Grantsmanship, Nigerian Institute for Medical
Research (NIMR), Lagos

Planning

- **Mentorship. Find a couple of mentors and prepared to do the donkey work.**
- **Find yourself in the right environment**
- **Submit abstracts and attend conferences, Local, National and International.**
- **Get involved in conference and workshop planning and organizing**
- **Attend research training modules**
- **Identify a focused niche area and publish reviews and research findings on that subject matter. What research questions are you asking. What problem in society do you want to solve.**
- **Who do you need to solve the problem**

Skilling

- Practice on the small grants, gain basic grantsmanship. Incredible boost to your confidence.
- Publish everything you do even if it had a negative or bad outcome. People want to know. But try to avoid publishing for publishing sake.
- Your CV is important. Ensure it is focused and not all over the place
- **Develop your brand. Who are you and what do you stand for**
- **Learn on line. Follow international consortia**
- Always work in teams and learn to lead.
- **Collaborative cross discipline holistic research. Try to find a way to, make your research findings impactful. Go to other departments weekly presentations. You will be shocked to find out how much synergy there is.**
- Hook into consortia as a collaborator and then as a co-investigator
- Understand where science R&D is going and move with the trend
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Funding Sources

- **Don't go for the obvious large competitive funders NIH, Wellcome Trust etc**
 - **Look for philanthropists. Local and international.**
 - **Look in your community for Trust funds or Memorial foundations**
 - **Government grants or projects**
 - **Societies in the niche areas you have chosen**
 - **Agencies**

Advice

- **Become an expert on research ethics, community engagement and the international treaties that govern global health**
- **Policy reform research**
- **Understand the digital age and how it is going to dramatically change the landscape.**
- **We are in the Social Media age. Use it. Blog and Tweet and develop a following.**
- **Implementation Projects are as good as Research Projects. Document them.**
- **Be bold and start a new discipline in your field, department or intuition**

Etiquette

- **Learn research etiquette**
 - How do you present yourself at professional meetings
 - How do you present your work
 - **Be known for your research integrity and your understanding of social justice**
 - Never sabotage your colleagues, institute or national interests
 - Practice Practice Practice. Watch You Tube or webinars and pick up styles
 - Speak international English
 - Don't be greedy or possessive, share out the academic spoils, the more you share and are inclusive the more science you will attract
 - Be an advocate of your work and your niche
 - **Always understand the patient or the community is at the heart of your research. You are the custodian of their trust and welfare. Don't sell them short. They depend on you. Fight for them.**

Thank you!