



# FBS Newsletter

A Publication of Faculty of Biological Sciences, University of Nigeria, Nsukka

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Eni-Njoku Library



## FROM THE DEAN'S DESK

Dear colleagues, welcome to the latest edition of our quarterly FBS Newsletter, the third volume this year. It is our hope that the volumes have helped keep all of us abreast of the latest news and developments within and outside our faculty. We hope that we all have been enjoying the change in weather with frequent heat punctuated with the rains to keep us all up and active. Here at the Faculty of Biological Sciences, one of the cyclone/wind/episodes blew off the roof top of our faculty building. The school authority is doing her best to get the building back to its original shape.

We have recently put the Bio-research Journal website into use as an online and open access Journal. We thank all those who made it possible. Please do send your manuscripts to the Journal for publication using the "submit the manuscript button" on the Journal's website. We could use the editor in chief's alternate e-mail @ emeka.nweze@unn.edu.ng in case

of any challenge during the submission process. Also Bio-research editorial office has been opened adjacent to the Dean's office in Jimbaz building. This is one of the TETFUND requirements for Journal sponsorship.

The Dean with all the Heads of Department and University Governing Council members from our Faculty paid a courtesy call to the Vice Chancellor and discussed the upcoming accreditation exercise. That visit yielded ten laptops, seven smart boards and seven projectors among others promises which the chief executive made to our Faculty. We sincerely thank the Vice Chancellor for the ones he has redeemed and pray that more will follow.

Yes, we are at it again. Immediately after the training of exam and level exam officers on the use of the newly procured result computation software to compute students results, a move which we believe will quicken the process and help graduate more students, we have appointed for members of staff to collate results of the present 400Level Combined Biological

Sciences (CBS) students results from their 100 level to 400 level. This is to help improve on the number of these students that graduate. Last year few CBS students graduated with their set. The appointees are: Mr Okagu Innocent of Biochemistry (in charge of 100 level results), Miss Ebere Njoku of Plant Sciences and Biotechnology (200 level results) and Mr Onuorah Valentine of Department of Microbiology (300 level results). Mr Andong Felix of Zoology and Environmental Biology will handle the present 400 level results and oversee that the results of those who have not yet graduated are sorted out. It is our thinking that these measures might help in improving the number that will graduate as any missing result will be identified in time and attended to. I urge these staff members to help the Faculty achieve this noble desire.

Now is an interesting time for us to know more about the 5<sup>th</sup> Yellow book. As staff promotions/welfare takes centre stage in this administration objectives, the Publications and Colloquium Committee chaired by Dr Greg Odo has perfected arrangement to bring knowledgeable colleagues to educate faculty members on this. Also Prof B.C. Nwanguma, the Head of the Department of Molecular Genetics is organizing a talk on the ethics of our profession in this University as a prelude to his hand over to the new chairman of the Faculty Ethics Committee. Watch out for the dates. **As Government's economic policy is faltering**

**which makes direct impact on our daily household budget, soon we shall be having a lecture on investment options available to our colleagues under fifty years of age to enable them plan early for retirement and for those over fifty to start planning on post-retirement investments. If we fail to plan, then we plan to fail.**

Prof L.I. Ezeogu, the Head of the Department of Microbiology, is currently heading the team that is developing the long term strategic plan for our great faculty. It is our belief that when this is submitted and accepted, the faculty will have a direction and focus on what and where we want to be in the next ten or twenty years.

The 46<sup>th</sup> matriculation ceremony has come and gone but the memories of how it was celebrated at our Faculty are still fresh with us. This one was one of the most attended events in this Faculty. We thank all who participated in making it happen.

The Vice Chancellor on the 29<sup>th</sup> of March performed the foundation laying ceremony of the late SOLO OGUIKE building for BIOMEDICAL ENGINEERING, A building donated by an alumnus of Engineering, Anthony Uzoma Oguike to both the faculties of Engineering and Biological Sciences in memory of his late father who was a staff of Biochemistry of our great Faculty. The Deans of the two Faculties, Prof Val Ekechukwu and our own, Prof Sabinus Oscar O. Eze, saw it as an opportunity to create an interdisciplinary

research centre and hence the name "BIOMEDICAL ENGINEERING BUILDING" which will midwife a new research department of Biomedical Engineering. Dr E.C. Ossai of our own department of Biochemistry is interfacing with Dr Ani Anthony Ozoemena of Agric and Bio-resources Engineering to produce a draft curriculum for the new department.

The activities of some research groups within the faculty and our regulars on birthdays, scholarships and grants featured in this edition. We sincerely request colleagues to tell us what they do and the milestones that have been achieved so far in their various research endeavours. The activities of some committees such as Examination, Welfare, Scholarships & Grants are quite commendable as we still await the staff entrusted with producing faculty e-mail and sms platform to deliver on it for ease of doing business in the faculty.

Colleagues are encouraged to tell us how we can continue to make this, **the type of Newsletter we all have been waiting for**

We hope that this edition will make an interesting read.

God bless Faculty of Biological Sciences and indeed the University of Nigeria

# THE 46TH MATRICULATION CEREMONY OF UNIVERSITY OF NIGERIA

The matriculation ceremony of the University of Nigeria Nsukka for 2018/2019 academic session held on **Saturday 16th March, 2019** at the various Faculties at all the Campuses of the University. The faculty of Biological Sciences commenced the ceremony with a procession, followed by the National and School Anthems.

The Dean Faculty of Biological Sciences, Prof. Sabinus Oscar O. Eze, delivered the Vice Chancellor's address to the matriculating students.

The matriculating students took oath of loyalty, which was presided over by the Faculty Officer Mr. S. E. Mbah.

During the ceremony, Heads of various departments of the faculty of biological sciences were invited to admonish the matriculating students.

These heads of departments had these to say:



Head of Department of Plant Science and Biotechnology, **Prof. A. O. Nwadinigwe.**

*"congratulations to the matriculating students of the faculty of biological sciences. You are all advised this day to learn how to manage your time ranging from lectures to individual itineraries. Avoid cultism and be warned, they will come in different guises to woo you but be on the alert".*



Head of Department Zoology and Environmental Biology, **Prof. P.O. Ubachukwu**

*"I want to encourage you in the lord, to remain steadfast. It is very important that you see your lecturers as your parents away from home. Always approach them for any form of help and avoid discussing sensitive challenges with your fellow students. Remember that your Academic Advisers are always on ground to help you. Program yourself and start early. Above all, always seek for help and grace from God".*



Head of Department, Department of Biochemistry, Ferdinand represented by **Dr O.C. Enechi**

*"As you begin this journey, you will encounter a lot of challenges, but conquer all your fears and you will be able, at all times, to confidently sit back and set short and long term goals, allowing yourselves to continue the course of accomplishing your ambitions. Your primary purpose on this campus is to attend to your academic pursuits, hold onto this purpose".*



Associate Dean, Faculty of Biological Sciences,  
**Dr. C.O.Nwuche**

*"Approach your lectures with zeal. You will learn the importance of research development, through determination and teamwork. Whenever you are faced with challenges, you are sure to reach back to these experiences and be both humbled and uplifted, recognizing how important they are to your personal growth"*

The students were availed the opportunity to express their challenges, through their representatives:

*"The students of the department of Aquaculture and Marine Biology usually have the challenge of accessing information, since the department is new and has just admitted its new students".*

**Chinazaekpere Prosper**, Year one student representative, Department of Aquaculture and Marine Biology and **Onah Onyedikachukwu**, year one student representative, department of Molecular Genetics and Biotechnology were among the first year students that spoke.

**Mr. Nwamu, Sylvester** addressed students on behalf of parents

*'The Dean, distinguished professors of the faculty, and my beloved students:*

*I'm pleased to be back here after 31 years. In this same University, sometime in 1988, I witnessed a prize-giving event for graduates of that year. I studied Mass Communication.*

*Students, I want you to know that your course is a special one: the future of education is in the*

*biological sciences. Some of you, like my daughter, probably desired to study Pharmacy or Medicine or Medical Lab Science. Those who have been led by destiny into the Biological Sciences but still want to change to other courses after their first or even second year will be making a huge mistake. You don't need to change to what you presume to be a "more rewarding" course because the world has since moved on. There is no longer anything special about Medicine or Pharmacy. Great scientists of the future – men and women entrepreneurs expected to change the world – will likely come from those with a background in the biosciences.*

*Even in the past, the richest or the greatest inventors or the highest award-winning scientists were not those who studied Medicine or Engineering or Computer Science in the university. They were people like you who immersed themselves in research work both within and outside the walls of universities. I'm sure if you google a phrase like "bioscientists and their discoveries" you will be overwhelmed by a long list. You may also wish to read the life stories of inventors like Alexander Fleming, Thomas Edison, Steve Jobs, and Bill Gates. Moreover, there is a*

*young man named Mark Zuckerberg; he was not even born when many in my generation were in this university. Yet, every day, you and I patronize his businesses by chatting on Facebook and WhatsApp! He is one of the world's richest people today.*

*What I demand from your lecturers is: they should teach you how to read and how to do research. That's all they owe you – and that's more important than the grades you will make in your course work. Prepare to read widely and prepare to conduct researches aimed at changing the world around you. We look up to you scholars in the field of the biological sciences to invent or improve on things that can make us live longer. In the 21st century, people want to live longer and healthier lives. People want foods that are more nutritious and plants that can yield more satisfying fruit and nourishment, that are easily available and affordable especially for the world's poor. To succeed in this endeavour, you need to work as a group. Conduct researches together and seek venture capital together. There is no short-cut to distinction.*

*While we were students here in the 1980s, there were no courses like Biotechnology, Environmental Biology, or Molecular Biology and Genetics as you have now. You have the challenge to make the most of these innovations. Your parents did not have such opportunities. In those days, for instance, many graduated from the Department of Computer Science without even sighting a computer.*

*Bill Gates said something in 2017 that compelled me to have*

*more respect for the biological sciences. He told the graduating students of a university that if he were starting out that day and looking for the same kind of opportunity to make a big impact in the world, he would consider three fields: artificial intelligence, renewable energy, and the biosciences. [See <https://eyeway.ng/2017/05/19/department-class-of-2017/>.]*

*As a columnist, I have occasionally advocated education reform. Again I tell you today: schools should begin to deemphasize certificates and focus on producing graduates who will become job creators rather than job seekers. Before your convocation, four or five years from now, we expect you to initiate projects in your areas of specialization dedicated to changing your country or the world.*

*I have every hope that the Faculty of Biological Sciences of UNN would be one of the catalysts for your research works and great inventions. You are the change we all seek. Together with your professors here, I hope to enjoy the privilege of pointing a new generation of bioscientists to the desired right direction."*

The Dean Faculty of Biological Sciences, **Prof. Sabinus Oscar O. Eze**, in response to issues raised said that work is ongoing to put the Faculty of Biological Lecture Theater in good shape. The Dean further advised Class Representatives to always visit the Dean's office for the public address systems, which will enhance lecture delivery.



Prof. S. O. O. Eze (Dean Faculty of Biological Sciences) and other Staff Members during the School Anthem



Cross-section of Matriculants during Oath taking



**UNIVERSITY OF NIGERIA, NSUKKA  
OFFICE OF THE VICE-CHANCELLOR**

**AN ADDRESS DELIVERED BY THE VICE-CHANCELLOR,  
PROFESSOR BENJAMIN CHUKWUMA OZUMBA  
AT THE 45TH MATRICULATION CEREMONY  
OF THE UNIVERSITY OF NIGERIA, NSUKKA  
ON SATURDAY, MARCH 16, 2019**



Deans of Faculty  
Heads of Department  
Distinguished Academic and Administrators  
Respected Parents and Guardians  
Gentlemen of the Press  
My Dear Students  
Lions and Lionesses  
Distinguished Ladies and Gentlemen

Every academic year, we roll out our drums and red carpets to welcome our new students to the Lion's Den at Matriculation ceremonies like this. I have had the privilege to address these great students of ours since 2014 as the Vice-Chancellor. May I express my profound joy as I say a big WELCOME to our matriculating students on the 45<sup>th</sup> Matriculation ceremony of the University of Nigeria.

This year's matriculation ceremony is historic.

It is historic for me and to the young budding students bubbling with enthusiasm to be lifted to the rungs of academic excellence on the platform of the most iconic academic institution in Nigeria – the University of Nigeria. Your dreams for a bright academic future have come to fruition.

This is probably my last matriculation address to a crop of young students of this institution as Vice-Chancellor, as my 5-year tenure runs out in a couple of months. I am happy therefore to be part of your academic success story, as I equally see you as special breeds to be so honoured with my success story as a Vice-Chancellor. To our most deserving parents and guardians whose first choice of the University of Nigeria for their wards has brought them here today, celebrating at this 45<sup>th</sup> matriculation, I say WELCOME!

It is important to state and emphatically too the objectives of the matriculation ceremony. Matriculation ceremonies are a formal admission of candidates who have passed through the acceptable standard examinations and are therefore seen to have fulfilled the requisite requirements for admission into the University. The ceremony further sets the pace for such candidates to be qualified to register for their various courses of study in pursuit of their academic goals.

At the matriculation ceremony the candidates make solemn declarations in public, of their loyalty to the University and their aspirations, in a conscientious manner. This is a very significant milestone in the life of an undergraduate which is usually greeted with ecstasy. Every undergraduate looks forward to this historic occasion as it marks his first steps into the main world of academics. It does not come easy. Your admission into the University of Nigeria is a right that you have earned. Embrace your admission to the University of Nigeria, Nsukka as a gift. Unwrap this gift with gusto and peace of mind. Peace of mind is impossible without a considerable amount of solitude.

I want to assure you that our academic programmes are quite strict and full of intellectual exposures that are thorough. We have however put in place – Deans of Faculty, Academic Advisors, Heads of Department and other corresponding administrative staff that you can readily access to help you plan your studies, and ensure that your academic life is conducted without problems. Furthermore, the University Administration has not and will not relent in its decision to make your stay here as comfortable as possible. It is noteworthy to inform you that this University also has rules and regulations meant to stimulate orderly conduct of its affairs. Make it a point of duty to be conversant with these rules and

regulations.

The University of Nigeria Academic Regulations is a publication designed to keep you abreast of the guidelines pertaining to academic matters while the STUDENTS' HANDBOOK is designed to guide your conduct as students of the University of Nigeria. The Students' Union Constitution is designed to ensure that Students' Union Affairs are conducted in line with established University Regulations. The Students Affairs Department is a veritable medium through which students' activities are appropriately handled.

This University has zero tolerance for cultism and other negative acts, vices or misconducts. University disciplinary procedures are therefore very strict. It is important therefore to state here that you must bear in mind your reasons for coming to this University. To achieve these reasons, you should therefore avoid bad company and remain focused. Be conscious of your behaviour as leaders of tomorrow. Let me assure you that this Administration considers the welfare of students as an indispensable commitment. Municipal services will always be given priority in all the Campuses: Nsukka, UNEC, and Ituku-Ozalla. We will adhere strictly to our core values built around Integrity, Accountability, and Transparency. This imposes on us to:

- place the interest of the University above all other considerations;
- make decisions that will be guided by deep sense of honesty, truth, equity, and justice;
- encourage and exhibit the highest standard of ethical and moral values;
- execute all actions in compliance with the rules of the University and the laws of the country;
- treat everyone fairly and justly, regardless of religion, gender, or geographical origin;
- ensure that the assessments of students performance are guided by meritocracy;

This University has 5 Schools, 9 Institutes, 18 Centres, 10 Academic Units, 17 Faculties and 117 Departments. With academic staff of over 2,500 and a student population of over 45,000 within the 3 Campuses, this University mentors 3 Private

Universities (Godfrey Okoye University, Gregory University and Hezekiah University). There are also 2 Polytechnics, 6 Colleges of Education, and 2 Seminary Schools affiliated with the University of Nigeria for the purposes of awarding degree programmes.

We offer a total of 260 Postgraduate programmes, while our Postgraduate enrolment is put at 9,000. We award over 10,000 Bachelors degrees annually.

The University of Nigeria has earned an enviable reputation of excellence over the years. We are ranked among the Top 3 best Universities in Nigeria. We are ranked as the No. 1 University in Nigeria in terms of creative output (Webometric ranking). Our graduates excel in national and international professional examinations in fields of law, medicine, engineering, accountancy, etc. Our graduates occupy very important positions in Government, Ministries, Politics, and in the Private Sectors.

With this brief but tall resume of the University of Nigeria, you have every reason to beat your chests with pride that you have made the right choice in the University of Nigeria to provide you with the requisite academic tools to build your future in elegance. Elegance is the only beauty that never fades.

The University of Nigeria is it!

Congratulations our dear parents and guardians for your right choice and decision to trust the University of Nigeria and place the future of your children's education in our hands. We solicit equally your support in this direction.

We promise not to disappoint you as we seek Truth, Teach Truth, and Preserve Truth in order to **restore the dignity of Man.**

Thank you all for listening and Happy Celebrations of the 45<sup>th</sup> Matriculations of the University of Nigeria, Nsukka.

**Prof. Benjamin Chukwuma Ozumba, MBBS,  
FRCOG, FACOG, FACS**

Vice-Chancellor

# THE DEAN AND HIS TEAM PAYS VISIT TO THE VICE-CHANCELLOR

On Monday March 4, 2019, the dean paid a courtesy visit to the Vice Chancellor to discuss a wide range of issues relating to the forthcoming accreditation of the faculty programmes by the National University Commission (NUC). In the company of the dean were the associate dean, heads of department, past deans, council members and other University functionaries from the faculty. The vice chancellor welcomed the dean and his entourage into his conference room at 12:50 pm. In his opening remarks, the dean thanked the vice chancellor for his fatherly love and support for the faculty which he has repeatedly shown through his attendance to the faculty's programmes such as the Prof. Onwuliri Symposium of 2014, prompt promotion and welfare of faculty staff, endorsement of numerous collaborations and fellowships attracted by staff of the faculty, creation of two additional departments, approval of two visiting Professors among others. The dean then went straight to state the object of his mission which was to secure the vice Chancellors support both in material and kind towards the faculty accreditation exercise scheduled for November, 2019. The Dean further informed the Vice chancellor that since his assumption of office as the Vice chancellor, the faculty has graduated fifty-three (53) PhD students and innumerable Master's students.

In his response, the Vice chancellor thanked the dean and his staff for the visit and stated that the NUC requirements for a successful accreditation are well known to him. He mentioned commensurate student-staff ratio and adequate equipment as some of the factors needed. He advised the dean on how to go about sourcing funds to enable him meet other needs. The Vice chancellor promised to take the faculty through the accreditation programmes and pledged a donation of fifteen (15) laptops and seven (7) smart boards for a start. He enjoined the team to articulate their needs properly and forward same to his office for approval. He also directed the dean to Prof. SI

Ofoefule and the Director of Physical Planning Unit for the supply of the promised items.

The director, Central Laboratory, Prof IM Ezeonu appealed to the Vice chancellor to expedite efforts to equip the laboratory so as to make the work easier. The head, Department of Biochemistry, Prof FC Chilaka lamented the lack of a functioning post-graduate laboratory for his department even as he volunteered to assist in the provision of research equipment through his collaboration with the University of Nottingham. According to Prof. Chilaka, some of the equipment he attracted has arrived and requested the Vice-chancellor to spare some time out of his leisure to visit the department and inspect them.

The Dean thanked the Vice chancellor for the honour of his presence and for hosting him and his team. He presented to the VC on behalf of the faculty of biological sciences, several copies of the faculty's signature publication: the FBS Newsletter. The Vice-chancellor thanked the dean for his innovation and thoughtfulness and wished him well in his future endeavours. The team was treated to some light refreshments before a group photograph with the Vice-chancellor. The meeting ended at 1:20pm with closing prayers said by Prof. SI Ofoefule



The Dean, Faculty of Biological Sciences Prof. Sabinus Oscar O. Eze making a presentation of copies of FBS Newsletter to the Vice Chancellor Prof B.C. Ozumba



Front row, L-R: Prof F.C. Chilka, the DVC(Admin) Prof C. Igwe, Dean Fac of Biological Sciences Prof Sabinus Oscar O. Eze, Vice Chancellor Prof B.C. Ozumba, DVC (Acad) Prof James Ogbonna, Head of PSB Prof A. Nwadinigwe, Prof J.O.Ugwuanyi

Back row, L-R: Dr V.C. Ejere(representing the HOD molecular Genetics, Prof O.U. Njoku, Director University Consults, Associate Dean Dr C.O. Nwuche, HOD Microbiology Pro L.I.Ezeagu and Director UNN central laboratory Prof I. Ezeonu



The Vice Chacellor, Prof B.C. Ozumba with copies of FBS Newsletter while addressing his guests



Prof Ifeoma Ezeonu, Prof Jerry Ugwuanyi and Prof Obi U. Njoku



The Dean of Faculty of Biological Sciences, Prof S.O.O.EZE making his remarks

# ENGR ANTHONY UZOMA OGUIKE DONATES A BUILDING TO FACULTIES OF BIOLOGICAL SCIENCES AND ENGINEERING

Following a discussion between the Dean of Engineering Prof. Val Ekechukwu and an alumnus of Faculty of Engineering, Engr Anthony Uzoma Oguike, the alumnus agreed to construct and donate a building to both faculties of Biological Sciences and that of Engineering in memory of his late father who was a staff of the department of Biochemistry of our great faculty. When the Dean of Engineering approached the dean of Biological sciences on the matter, Biological Sciences drew the proposal, prepared the building plan and the bill of quantity which were forwarded to the donor. The donor responded with payment in full of the evaluated cost of the building to his appointed contractor who has the mandate to deliver by September 2019. Further interaction By both Deans birthed the agreement to make the building a centre for cross disciplinary research in the University and hence the name “**Biomedical Engineering**”. With this, the contractor modified the building plan earlier submitted and upgraded the building to house three laboratory spaces, four classrooms, staff offices, PhD student’s hall, one seminar room and conveniences at additional costs. This department of Biomedical Engineering will be the foremost department of biomedical engineering in the country and would apart from training high level manpower in biomedical engineering, physics and chemistry but also interface with the life sciences, medicine, pharmacy, veterinary medicine and agriculture to develop medical devices and surgical instruments as well as tissue engineering, biomaterials, Neural engineering, biomechanics, tele-health, bio-signal processing, medical imaging, computational modeling among others. Our own Dr Ossai E.C. of Biochemistry department and Dr Ani of engineering are already interfacing to produce a draft curriculum for the new department.

The foundation laying ceremony for the construction of the building was performed on the 29<sup>th</sup> of March 2019 at the Nsukka campus of the University by the

Vice Chancellor, Prof B.C. Ozumba, with the donor Engr Anthony Uzoma Oguike, his brother, Engr Victor Okey Oguike and their mother, Mrs Augusta Oguike. Also present were the University Registrar, Dr C. Igbokwe, the Deans of the two faculties with their Associate Deans, heads of department, faculty members among other dignitaries.



1 R-L; the Donor, Engr Anthony Uzoma Oguike(standing), Engr Victor Okey Oguike and Mrs Augusta Oguike during the courtesy call at the VC's conference room

2 Front row: L-R: Dean of Biological Sciences, Prof Sabinus Oscar O. Eze, DVC(Acad), Prof James Ogbonna, Mrs Augusta Oguike, Engr Anthony Uzoma Oguike, the Vice Chancellor, Prof B.C. Ozumba, Dean of Faculty of Engineering, Prof Val Ekechukwu, and Engr Victor Okey Oguike

3 The VC, Prof B.C. Ozumba with the donor Engr Anthony Uzoma Oguike while Engr Victor Okey Oguike watches from a distance

4 The VC Prof. B.C. Ozumba Exchanging banter with the Deans of Biological Sciences Prof Sabinus Oscar O. EZE and the Dean of Engineering Prof. Val Ekechukwu at the building site

5 The VC, Prof B.C. Ozumba and the Dean of faculty of Engineering, Prof Val. Ekechukwu

6 The VC, Prof. B.C. Ozumba and the Dean of faculty of Biological Sciences, Prof Sabinus Oscar O. EZE

7 The VC, Prof B.C. Ozumba making a speech at the site of the building during the foundation laying ceremony



## RAIN STORM DAMAGES JIMBAZ BUILDING ROOFING

Following the rainstorm, which occurred in the early hours of Friday 22<sup>nd</sup> March, 2019, the Faculty of Biological Sciences building (JIMBAZ), had its roof blown off.

The Vice Chancellor Prof B.C. Ozumba represented by the Deputy Vice Chancellor (Administration), Prof Charles Igwe, in company of the Dean of Faculty Prof Sabinus Oscar O. Eze, and the Associate Dean, Dr C.O. Nwuche, were at the scene of the incident that morning to assess the level of damage. The Deputy Vice Chancellor expressed happiness that no casualty was recorded. He further stated that works services will clear the debris from the wreckage and opined that reconstruction of the damaged JIMBAZ building roof will commence immediately.



Damaged section of JIMBAZ BUILDING.



# DRUG-RESISTANT INFECTIONS RESEARCH GROUP

**Prof I.M. Ezeonu**

### Base/Membership

The Drug-Resistant Infections Research Group is based in the Faculty of Biological Sciences. The Research group was originally formed in 2015, with five members, as follows:

**Prof. Ifeoma M. Ezeonu**

Department of Microbiology *Coordinator*

**Dr. Anthony C. Ike**

Department of Microbiology *Member*

**Mr. Kenneth O. Ugwu**

Department of Microbiology *Member*

**Dr. Godwin C. Ngwu**

Department of Zoology & Env. Biology *Member*

**Prof. Benneth C. Nwanguma**

Department of Biochemistry *Member*

**Prof. Emmanuel A. Eze**

Department of Microbiology *Member*

Since its inception in 2015, membership of the Research group has grown to more than 50 individuals, including former students and current post-graduate students of the founding members. The group holds regular meetings on the first Wednesday of each month.

### Research focus

The research efforts of the group are aimed at carrying out surveillance studies on some of the common infectious diseases, for which drug-resistance has been documented, studying the patterns of evolution and spread of the causative pathogens and evaluating alternative strategies for the management of drug-resistant infections.



### Some on-going studies

1. Molecular epidemiology of multi-drug resistant tuberculosis in Enugu State.
2. Molecular evaluation of KDR mutation-associated insecticide resistance among anopheline vectors of malaria in south eastern Nigeria.
3. Evaluation of some combination therapies for the possible treatment of drug-resistant infections.

### Other Activities

In addition to core research on drug resistance, the Research group conducts annual Molecular Biology workshops as part of its capacity-building programme. The workshop is usually organized as a hands-on training on the use of various Molecular Biology techniques. Target groups for the training include academics, post-graduate students, medical laboratory scientists and other practitioners who may require basic skills in molecular biology techniques and bioinformatics to support their teaching, practice and/or research. This year's event is scheduled to hold from 6<sup>th</sup> to 10<sup>th</sup> May and will include both lecture and practical sessions.

# BIO-RESEARCH: THE JOURNEY SO FAR

Emeka I Nweze., MSc, PhD, MPH  
Editor-in- Chief, Bio-Research

Following the reconstitution of the editorial board of Bio-research and my appointment as the Editor-in-Chief of Bio-Research by the Dean of our Faculty, Prof SOO Eze, our immediate priorities were to expand the visibility, readership and the overall quality of the journal

The Dean in consultation with the Editor-in-Chief took the first big move by contracting a web designer to set up the website for the journal since none was in existence before now. The work has since been completed. It is heartwarming to note that, prior to the handover of the website by the web designer, and in accordance with the policy of inclusiveness by the current faculty administration, the Dean shared the web link of the journal and asked faculty members to view and critique the site before paying off the web designer. Many faculty members responded to this call which elapsed on 10 January 2019. The editorial board remains grateful to many of you for their constructive criticisms which helped to add value to the website.

In line with improving the journal's visibility/indexation, proposals were sent to some publishing houses including Elsevier, Wiley and Springer Nature/BioMed central. We also took a decision to make the journal open access. The editorial crew had its first inaugural meeting on February 20, 2019 in the Dean's office and members agreed to work harder to increase the fortunes of the journal. As part of the outcome of this meeting, the editorial board is readying application to be submitted to TEFFUND for financial sponsorship which will help in repositioning the journal. The Dean has approved a new desk office for Bioresearch in the faculty to be located in the current computer room on the Dean's floor. The meeting also agreed that for the journal to be successful, all hands must be on deck especially on the side of the editorial team and other members of our faculty to create more awareness for this journal within and outside Nigeria. The meeting also agreed

to expand the existing editorial crew via appointment of Associate Editors working in the area of biological sciences and other related fields. We thank Prof JC Ogbonna for attracting two international researchers to serve as Associate Editors: Prof Jonathan C Eya of the Department of Biology, West Virginia State University, USA and Dr Adukwu of the Department of Applied Sciences, University of the West of England, Bristol, UK. We encourage all faculty members to send in their nominations to the Editor in Chief, via email to [emeka.nweze@unn.edu.ng](mailto:emeka.nweze@unn.edu.ng) on or before March 30th, 2019. We are also looking for expert reviewers in different areas and applications are welcome.

As the Dean previously announced to the faculty members, we have started receiving manuscripts for review and possible publication. The Dean has offered to pay for manuscript and processing charges worth fifteen thousand naira (#15,000) for the first faculty member whose paper is accepted for publication in Bio-Research. The Journal website is [www.bio-research.com.ng](http://www.bio-research.com.ng). The submission guidelines and all other relevant information is available on this website and is being reproduced here for easy access. If you have any questions, send email or call the Editor-in-Chief or the Managing Editor. We urgently need to publish new papers as the last publication on our website was in 2017 and it may not put us in good light considering our various applications for indexing. We are therefore waiting for your papers. We are making effort to print the fliers and we appeal to colleagues attending any local or international conferences/symposia/workshop/training etc. to help us with distributing these fliers. We think that it will help in publicizing the journal

Let us join hands together with our dynamic Dean to improve the fortunes of our faculty through academic excellence via Bio-Research.



#### Background:

Globally, water is not only a crucial resource but also a major challenge. Its quality and availability constitute powerful determinants of sustainable health, economic growth and social development. Established at the University of Nigeria, Nsukka, in 2013, Water and Public Health Research Group (WPHRG) is a trans-faculty research team that seek to study water, public health and development through multidisciplinary approaches, to develop capacity and contribute in advancing knowledge in water, environment and public health sectors, to help in providing safe water to communities and marginalized groups in sub-Saharan Africa countries, and to collaborate with relevant organizations/institutions/groups in response to various water-related challenges and frontiers. Our research interest ranges from aquatic environments and human health through water economics and education to renewable energy from wastewater.

#### 7 Research Focus Areas:

1. Aquatic environments and human health:
2. Water, sanitation and hygiene (WASH)

## Water & Public Health Research Group (WPHRG)

3. Water education, literacy and awareness
4. Water management and governance
5. Water, irrigation and food security
6. Bioactive agents from aquatic ecosystems
7. Bioenergy and biochemicals from wastewater
11. Dr Tochi N. Nwagu (PhD in Microbiology)
12. Dr Onyetugo C. Amadi (PhD in Microbiology)
13. Dr Nkechinyere Nweze (PhD in Botany)
14. Dr Chinyere B, Chigor (PhD in Botany)
15. Mr. Valentino Onuora (MSc in Microbiology)
16. Mr. Richard Umezina (PhD in Theatre and Film Studies)

#### Contact Us:

Water and Public Health Research Laboratory  
Room 105, Block A (Prefab Building)

Department of Microbiology  
University of Nigeria  
Nsukka 410001  
Nigeria

**E-mail:**  
[wphrg@unn.edu.ng](mailto:wphrg@unn.edu.ng)  
**Research Team:**

1. Dr Vincent N. Chigor (PhD in Microbiology; **Coordinator**)
2. Dr Ebele Amaechina (PhD in Agricultural Economics)
3. Dr Gloria N. Okpala (MSc Environmental Engineering, PhD in Microbiology)
4. Dr Ikechukwu U. Erojikwe (PhD in Theatre and Film Studies; **Secretary**)
5. Prof. James C. Ogbonna (PhD in Applied Biochemistry)
6. Mr. Uche Oyeagu (MSc in Microbiology)
7. Prof. Jonah C. Agunwamba (PhD in Civil Engineering)
8. Dr Goddy Ngwu (PhD in Zoology)
9. Mr Kenneth Ugwu (MSc in Microbiology)
10. Dr Simeon C. Enemour (PhD in Microbiology)

**17. PhD students; MSc students; Final year Honours students**

#### Activities:

1. Research Meetings (Quarterly)
2. Graduate Supervision Meetings
3. Journal Club Meetings (Biweekly)
4. Writing proposals, Sourcing funding
5. Establishing research collaborations
6. Conducting Theatre for Development (TfD) Outreaches
7. Doing quality interdisciplinary research
8. Publishing research findings
9. Running a research journal: *Water Africa Journal*
10. Attending Conferences/Meetings/Workshops/Lectures
11. Organizing Conferences/Meetings/Workshops/Lectures
12. Organizing special programmes:  
World Water Day: 22 March  
World Environment Day: 5 June  
Global Handwashing Day: 15 October



# Scholarships & Grants

## BIOTECHNOLOGY AND BIOLOGICAL SCIENCES RESEARCH COUNCIL (BBSRC)

Polaris House, North Star Avenue, Swindon, Wiltshire, SN2 1UH, United Kingdom

Tel: (44) 1793 413 200

Fax: (44) 1793 413 201

Email: [postdoc.fellowships@bbsrc.ac.uk](mailto:postdoc.fellowships@bbsrc.ac.uk)

Website: [www.bbsrc.ac.uk](http://www.bbsrc.ac.uk)

BBSRC is the UK's principal funder of basic and strategic biological research. It is a non-departmental public body, one of the seven Research Councils supported through the Science and Innovation Group of the Department for Innovation, Universities and Skills (DIUS). It supports research and research training in universities and research centres throughout the UK, including BBSRC-sponsored institutes, and promotes knowledge transfer from research to applications in business, industry and policy, and public engagement in the biosciences. For all 2019 open and future calls, visit [www.bbsrc.ac.uk](http://www.bbsrc.ac.uk)

### David Phillips Fellowships

**Subjects:** All subjects.

**Purpose:** To support outstanding early-career scientists who wish to establish themselves as independent researchers.

**Eligibility:** Applicants should not exceed 10 years in active postgraduate research studies and postdoctoral research employment. Applicants should have no less than 3 years of active postdoctoral research experience.

**Level of Study:** Postdoctorate

**Type:** Fellowship

**Length of Study:** 5 years

**Application Procedure:** Submit a proposal electronically via the Joint Electronic Submissions (Je-S) system from July with the mandatory attachments mentioned at [www.bbsrc.ac.uk/funding/fellowships/david-phillips.aspx](http://www.bbsrc.ac.uk/funding/fellowships/david-phillips.aspx).

**Closing Date:** October 21st

For further information contact:

Email: [postdoc.fellowships@bbsrc.ac.uk](mailto:postdoc.fellowships@bbsrc.ac.uk)

Website: [www.bbsrc.ac.uk/funding/fellowships](http://www.bbsrc.ac.uk/funding/fellowships)

### ECOLOGISTS IN AFRICA

**Subjects:** Ecology. This grant provides support for ecologists in Africa to carry out innovative ecological research. The BES recognizes that ecologists in Africa face unique challenges in

carrying out ecological research and this grant is designed to provide them with support to develop their skills, experience and knowledge base as well as making connections with ecologists in the developed world.

**Purpose:** To support excellent ecological science in Africa by funding services and equipment.

**Eligibility:** Applicants must be a scientist and a citizen of a country in Africa or its associated islands; should have at least an MSc or equivalent degree; be working for a university or research institution in Africa (including field centres, NGOs, museums etc.) that provides basic research facilities; must carry out the research in a country in Africa or its associated islands.

**Level of Study:** Doctorate, Postdoctorate, Research, MSc or equivalent degree within Africa & Associated Islands

**Type:** Project grant

**Length of Study:** 1 year

**Country of Study:** Africa

**Application Procedure:** Candidates must apply online through the BES office at [www.britishecologicalsociety.org/grants-awards/ecologists-in-africa](http://www.britishecologicalsociety.org/grants-awards/ecologists-in-africa).

**The first grant round of 2019 is now OPEN, with a deadline of Wednesday 20 March 2019.**

**While the second grant round of 2019 will open in mid-July.**

### DAAD Scholarships for International Developing Countries

**Subjects:** Economic sciences/business administration/political economics, development co-operation, engineering and related sciences, mathematics, regional planning, agricultural and forest sciences, environmental sciences, public health/veterinary medicine/medicine, social science, education and law and media studies.

**Eligibility:** Age limit is 36 years at the time of application (for some courses 32 years).

Postgraduate courses held in English request an international TOEFL (minimum score: 550 paper based, 213 computer based, 80 internet based) or IELTS (band 6). GPA: min 2,75 for Master candidates (some study programs applied GPA more than 2,75). For detailed information see the website.

**Level of Study:** Postgraduate

**Type:** Scholarship

**Country of Study:** Germany

**Application Procedure:** The completed application form must be accompanied by documents in German, English or French including full curriculum vitae, detailed and precise description of study or research proposal, evidence of any existing contact with academics at the chosen German host institutions, two recent referee's report(s) by one or two university teacher(s) containing information on the applicant's academic or artistic abilities..

**Closing Date:** July 31st (annually) DAAD Regional Office, DAAD Information Centre or German Embassy or August 31st (annually)

DAAD Bonn or October 15th (annually) University (Please check date).

Deadlines differ from university to university)

**Additional Information:**

<https://www.isnpo.org/blog/2018/12/17/apply-now-fully-funded-daad-scholarship-2019-for-international-students-in-germany/>

### BIOMEDICAL FELLOWSHIP PROGRAMS

**Subjects:** Basic and Translational Reproductive Sciences and HIV/AIDS Research.

**Eligibility:** Candidates for pre-doctoral biomedical fellowships must be engaged in graduate study leading to an advanced degree, MD, PhD, DVM or equivalent. Candidates for post-doctoral biomedical fellowships must have successfully completed an advanced degree, MD, PhD, DVM or equivalent. If the applicant is other than a US citizen or permanent resident, she/he must have a strong commitment to return to her/his own country.

**Level of Study:** Doctorate, Postdoctorate, Predoctorate, Professional development

**Type:** Fellowship

**Length of Study:** 1–2 years

**Study Establishment:** The Population Council's Centre for Biomedical Research

**Country of Study:** United States of America

**Application Procedure:** Contact the Center for Biomedical Research.

**Closing Date:** No deadline is set. Please check with the website

**For further information contact:**

Center for Biomedical Research, 1230 York Avenue, New York, NY 10065

### INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC)

PO Box 8500, 150 Kent Street, Ottawa, ON, K1P 0B2, Canada

Tel: (1) 613 236 6163

Fax: (1) 613 236 4026

Email: [cta@idrc.ca](mailto:cta@idrc.ca)

Website: [www.idrc.ca](http://www.idrc.ca)

The International Development Research Centre (IDRC) is a Canadian crown corporation created by the Canadian government to help communities in the developing world find solutions to social, economic and environmental problems through research.

### THE BENTLEY CROPPING SYSTEMS FELLOWSHIP

**Subjects:** Agriculture, forestry or biology.

**Purpose:** To provide assistance to Canadian and a developing country's graduate students with a university degree in agriculture, forestry or biology, who wish to undertake post-graduate, applied on-farm research with co-operating farmers in a developing country.

**Eligibility:** Applicants must be Canadian citizens, permanent residents of Canada or citizens of a developing country who are enrolled full-time in a graduate program (Master's, doctoral, postdoctoral) at a recognized university in Canada or in a developing country for the duration of the award period.

**Level of Study:** Doctorate, Graduate, Postdoctorate, Postgraduate, Unrestricted

**Type:** Fellowship

**Length of Study:** 1.5–2 years Frequency: Every 2 years

**Application Procedure:** Applicants must complete and submit an application form with various supporting documents. For further information see the IDRC website.

**Closing Date:** October 1st

**Additional Information:** Please see the website for details

[www.idrc.ca/EN/Funding/WhoCanApply/Pages/Bentley-Cropping-Systems-Fellowship.aspx](http://www.idrc.ca/EN/Funding/WhoCanApply/Pages/Bentley-Cropping-Systems-Fellowship.aspx).

**For further information contact:**

The Bentley Fellowship, Fellowships and Awards, International Development Research Centre (IDRC), PO Box 8500, Ottawa, ON, K1G 3H9, Canada

### IDRC DOCTORAL RESEARCH AWARDS

**Subjects:** Agriculture and environment.

**Purpose:** To promote the growth of Canadian capacity in research on sustainable and equitable development from an international perspective.

**Eligibility:** Open to Canadian citizens and permanent residents and a developing country's nationals. Applicants must be enrolled in a Canadian university, have a research proposal that has been approved by the thesis supervisor and be affiliated with an institution or organization in the region where the research will take place.

**Level of Study:** Doctorate

**Type:** Award

**Length of Study:** 3 months to 1 year  
**Frequency:** Twice a year  
**Study Establishment:** Universities. Normally, such research is conducted in Latin America, Africa, the Middle East or Asia  
**Country of Study:** Canada  
**Application Procedure:** Applicants must complete and submit an application form with a research proposal and various supporting documents. Information on required documents is available on the IDRC website.  
**Closing Date:** May  
**Additional Information:** Please see the website for further details  
[www.idrc.ca/EN/Funding/WhoCanApply/Pages/Doctoral-Research-Awards.aspx](http://www.idrc.ca/EN/Funding/WhoCanApply/Pages/Doctoral-Research-Awards.aspx).

#### **Visiting Fellowships for Developing Countries**

**Subjects:** Biochemistry.  
**Purpose:** To support research capacity building in developing parts of the world, e.g. Eastern Europe, Africa and the Middle East.  
**Eligibility:** Open to an overseas researcher on a laboratory visit to the sponsor's research facility or to go out to visit a research facility in a developing region or to enable a member give seminars and undergraduate or postgraduate training.  
**Level of Study:** Unrestricted  
**Type:** Fellowships  
**Application Procedure:** Please apply online at [www.biochemistry.org](http://www.biochemistry.org).  
**Closing Date:** January 1st, March 1st, May 1st, June 1st, July 1st, September 1st, and November 1st  
Additional Information: The grants will support either a visitor from a developing country to a U.K. host laboratory in order to learn methods

#### **SYNGENTA FOUNDATION**

WRO-1002.11.52, Postfach CH-4002, Basel, Switzerland  
Tel: (41) 61 323 5634  
Fax: (41) 61 323 7200  
Email: [syngenta.foundation@syngenta.com](mailto:syngenta.foundation@syngenta.com)  
Website: [www.syngentafoundation.com](http://www.syngentafoundation.com)  
**Contact:** Grants Enquiries Syngenta Foundation Awards  
**Subjects:** All subjects.  
**Eligibility:** Open to candidates from African nations.  
**Type:** Award  
**Country of Study:** Developing countries  
**Application Procedure:** Open.  
Additional Information: The Syngenta Foundation does not have a formal award mechanism. It awards people within the projects in developing countries

on an ad hoc basis.  
**For further information contact:** Syngenta Foundation, Schwarzwaldallee 215, Bases, Switzerland, 4002

#### **CSIR (COUNCIL OF SCIENTIFIC AND INDUSTRIAL RESEARCH)/TWAS FELLOWSHIP FOR POSTGRADUATE RESEARCH**

**Subjects:** Newly emerging areas of science and technology.  
**Purpose:** To enable scholars from developing countries (other than India) who wish to pursue postgraduate research to undertake research in laboratories or institutes of the CSIR.  
**Eligibility:** Candidates must have a Master's or equivalent degree in science or engineering and should be a regular employee in a developing country (other than India) and be holding a research assignment.  
**Level of Study:** Postgraduate  
**Type:** Fellowship  
**Length of Study:** Up to 4 years  
**Study Establishment:** CSIR research laboratories or institutes  
**Country of Study:** India  
**Application Procedure:** One copy of the application should be sent to TWAS and three copies to CSIR. Application forms are available on request or from the website.  
**Closing Date:** June 1st

**Additional Information:** CSIR is the premier scientific organization of India, and has a network of research laboratories covering wide areas of scientific and industrial research.

**For further information contact:** International S&T Affairs Directorate, Council for Scientific and Industrial Research (CSIR), Anusandhan Bhavan, 2 Rafi Marg, New Delhi, 110001, India  
**Fax:** (91) 11 2371 0618  
**Email:** [rprasad@csir.res.in](mailto:rprasad@csir.res.in)  
**Website:** <http://twas.ictp.it/prog/exchange/fells/fells-pg>  
**Contact:** Dr B K Ramprasad, Senior Deputy Advisor

#### **CSIR (The Council of Scientific and Industrial Research)/TWAS Fellowship for Postdoctoral Research**

**Subjects:** Newly emerging areas of science and technology.  
**Purpose:** To enable scholars from developing countries (other than India) who wish to pursue postdoctoral research to undertake research in laboratories or institutes of the CSIR.

**Eligibility:** The minimum qualification requirement is a PhD degree in science or technology. Applicants must be regular employees in a developing country (but not India) and should hold a research assignment. Be a maximum age of 45 years on December 31st of the application year.

**Level of Study:** Postdoctorate  
**Type:** Fellowship  
**Value:** Monthly stipend to cover for living costs, food and health insurance  
**Length of Study:** Up to 12 months  
**Study Establishment:** CSIR research laboratories or institutes

**Country of Study:** India  
**Application Procedure:** Applicants must complete an application form, available on request or from the website.

**Closing Date:** August 31st  
**Additional Information:** CSIR is the premier civil scientific organization of India, which has a network of research laboratories covering wide areas of industrial research.

**For further information contact:** Senior Deputy Advisor, CSIR (The Council of Scientific and Industrial Research), Anusandhan Bhavan, 2 Rafi Marg, New Delhi, 110001, India

**Tel:** (91) 11 331 6751

**Fax:** (91) 11 371 0618

**Email:** [rprasad@csirhq.res.in](mailto:rprasad@csirhq.res.in)

**Website:** [http://rdpp.csir.res.in/csir\\_acsir/PDF/brochure\\_India.pdf](http://rdpp.csir.res.in/csir_acsir/PDF/brochure_India.pdf)

**Contact:** Dr B K Ramprasad

#### **ICSU-TWAS-UNESCO-UNU/IAS VISITING SCIENTIST PROGRAMME**

**Subjects:** All areas of science other than mathematics or physics.

**Purpose:** To provide institutions and research grants in the South, especially in least developed countries (LDCs), with the opportunity to establish long-term links with world leaders in science and help build scientific capacity in their country.

**Eligibility:** Candidate must be an internationally renowned expert.

**Level of Study:** Research, Professional development

**Type:** Consultancy

**Length of Study:** Minimum of 1 month

**Study Establishment:** Teaching and research institutions

**Country of Study:** Any developing country, preference will be given to LDCs

**Application Procedure:** Applicants must complete an application form, available on request or from the website.

**Closing Date:** October 1st

**Contributor:** International Council for Science (ICSU), United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations University/Institute for Advanced Studies (UNU/IAS) and TWAS

#### **Additional Information:**

See the website  
<https://twas.org/opportunity/twas-dfg-cooperation-visits-programme> or  
[http://portal.unesco.org/science/en/ev.phpURL\\_ID=4672&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/science/en/ev.phpURL_ID=4672&URL_DO=DO_TOPIC&URL_SECTION=201.html) for more information.

#### **SUPPORT FOR INTERNATIONAL SCIENTIFIC MEETINGS**

**Subjects:** Agricultural, biological, chemical, engineering or geological and medical sciences.

**Purpose:** To encourage international scientific meetings in Third World countries.

**Eligibility:** Open to organizers of international scientific meetings in developing countries. Special consideration is given to those meetings that are likely to benefit the scientific community in the Third World and to promote regional and international co-operation in developing science and its applications to the problems of the Third World.

**Level of Study:** Postgraduate, Professional development

**Type:** Travel grant

**Country of Study:** Developing countries

**Application Procedure:** Applicants must complete an application form, available on request or from the website.

**Closing Date:** May 31st

# FACULTY LEVEL RESEARCH GRANTS

## 1. USAID: Tuberculosis Implementation Framework Agreement (TIFA)

**Deadline:** 16 April 2019

The United States Agency for International Development (USAID) is seeking applications from qualified entities to implement the Tuberculosis Implementation Framework Agreement (TIFA) program with the intention to issue up to two cooperative agreements.

TIFA, a key component of the USAID Global Accelerator to end TB and the Journey to Self-Reliance, will develop and manage partnerships with local government entities, and other local partners, to implement locally generated solutions to improve TB services in USAID priority countries. The overarching goal for TIFA is to strengthen and sustain country ownership and accountability. TIFA has three primary objectives:

- To achieve effective and efficient mechanisms for direct support to National TB Programs and local government entities to effectively implement National TB Strategic Plans;
- To empower local government entities to become more self-reliant;
- To leverage and advocate for additional domestic resources for TB at all levels among local government entities

### Funding Information

- **Award Ceiling:** \$300,000,000

### Geographic Focus

TIFA activities will be conducted in the USAID TB priority countries (Afghanistan, Bangladesh, Burma, Cambodia, Democratic Republic of Congo, Ethiopia, India, Indonesia, Kenya, Kyrgyzstan, Malawi, Mozambique, Nigeria, Pakistan, Philippines, South Africa, Tajikistan,

Tanzania, Uganda, Ukraine, Uzbekistan, Vietnam, Zambia, and Zimbabwe) and regional platforms (Central Asia and East Africa).

### Eligibility Criteria

Eligibility for this NOFO is not restricted.

USAID welcomes applications from all organizations, including organizations that have not previously received financial assistance from USAID.

### How to Apply

Applicants can submit their applications via email at the address given on the website.

For more information, please visit <https://www.grants.gov/web/grants/view-opportunity.html?oppId=312981>

## 2. Grand Challenges Africa launched Data Science Approaches to Improve Maternal and Child Health Programme

**Deadline:** 26 April 2019

Grand Challenges Africa (GCA) is seeking applications for its “Data Science Approaches to Improve Maternal and Child Health in Africa”, a programme of the African Academy of Sciences (AAS) supported through the AAS funding and programmes implementation platform, the Alliance for Accelerating Excellence in Science in Africa (AESAI) – and the African Academy of Sciences with the South African Medical Research Council (SAMRC), in collaboration with the Bill & Melinda Gates Foundation's Knowledge Integration (Ki) initiative.

The purpose of this call for proposals is to

promote new quantitative approaches to synthesizing and analyzing data and evidence obtained from African public health surveys, longitudinal observational studies, clinical trials, and other relevant data sources – including combined datasets – to produce novel insights which can be used to improve maternal and child health in the African context and around the world. By enabling and fostering access to diverse datasets, GCA intend to engage a broad spectrum of collaborators – including research and clinical scientists working with data scientists, bioinformaticians, statisticians, epidemiologists, engineers, and computer programmers – to identify how innovative data analytic approaches can be used to develop more effective solutions for the maternal and child health challenges in Africa.

Key areas that have been identified by which to improve maternal and child health in Africa are: 1) better care during pregnancy, 2) better care at birth, 3) better postnatal care for women and their newborns, and 4) better hospital care of sick newborns. Nevertheless, developing and validating approaches to foster maternal and child health is challenging due to the complex interaction of biological, environmental, and social factors. Furthermore, policy recommendations for such approaches frequently lack sufficient supporting scientific evidence, while clinical trials are expensive, time-consuming, and increasingly difficult to implement. There is now a key opportunity to accelerate research in this area by establishing robust collaborative research networks in Africa (especially those focused on pregnancy and the peripartum period) and analyzing data from multiple African sources to guide public health recommendations that are data-driven and cost effective.

### What GCA is looking for

GCA seeks proposals designed to answer critical scientific questions related to maternal, neonatal and child health and development outcomes. Proposals should use innovative quantitative analytics and modeling approaches that can be applied to the relevant existing data sets and should yield actionable results with a potential to

significantly impact pan-African public health policy or that of specific African countries.

They will give highest priority to proposals that:

- support innovative collaborations between African researchers, healthcare professionals, and data scientists that could contribute to a sustainable African maternal, neonatal, and child health research network
- answer critical scientific questions identified in this call for proposals, while building and strengthening data science capacity for Africa
- consider African genetic diversity by accessing genomics databases, gene sequences, genome-wide association studies, or genetic cohorts that include Africans such as Hapmap
- take into account social, environmental and cultural determinants of outcomes and incorporate an understanding of the target community that includes barriers and constraints to delivery of interventions and to implementation of public health programs
- contribute to a portfolio of funded projects that addresses regional diversity and the need to provide health equity for diverse vulnerable populations
- explain how answers will have the highest likelihood of being relevant for implementation broadly in the public health system
- employ innovative and interdisciplinary analytical methods

### How to Apply

Applicants can apply via given website.

For more information, please visit <https://bit.ly/2FdGKuV>



The Dean, on behalf of the staff and students of Faculty of Biological Sciences wishes each and every one of you a very happy birthday and a year full of success.  
It has always been a pleasure working with you.

FEBRUARY	MARCH	APRIL
<b>BCH</b>	<b>BCH</b>	<b>BCH</b>
Prof. B. C. Nwanguma	Dr Ugochi O. Njoku	Prof. O. U. Njoku
Prof. S. O. O. Eze	Mr Jude O. Chime	Dr Emeka G. Anaduaka
Mr Ekene John Nweze	Mr Vincent C. Okonkwo	Mr Timothy P. C. Ezeorba
Mrs Sussana Ifeoma Eze		Mrs Anasthesia N. C Eze
		Mr Emmanuel P. Ezem
		Mrs Helen O. Ugwuanyi
<b>MCB</b>	<b>MCB</b>	<b>MCB</b>
Prof. J. O Ugwuanyi	Prof. M. O. Dibua	Dr C. O. Nwuche
Prof. A. N. Moneke	Chinasa V. Olovo	Mrs Ifeanyi A. Ndubuisi
Dr C. N. Eze	<b>Mr Joseph O. Mbawuike</b>	<b>Idogwu Juliet N</b>
Dr C. I. Nnamchi		
<b>Mr Peter U. Ugwu</b>		
<b>Mrs Nneka C. Anichebe</b>		
<b>PSB</b>	<b>PSB</b>	<b>PSB</b>
Dr B.C Chigor	<b>Mr Chika C. Nwadinigwe</b>	Christiana N. Ogbonna
Mrs Sheily N. Egonu	<b>Blessing C. Asogwa</b>	<b>Louisa C. Onah</b>
Mr Bartholomew O. Ude	<b>Edith N. Asadu</b>	<b>Chioma Ezeonwuka</b>
<b>Mr Ogbu Amos Ezeja</b>		<b>Anastesia A. Ogbu</b>
<b>ZEB</b>	<b>ZEB</b>	<b>ZEB</b>
Prof. N. N. R. Obiezue	Dr Godwin I. Ngwu	Prof. B. O Mgbenka
Dr Ikechukwu E. Onah	Mr Chinweike N. Asogwa	Prof. I. C. Okoye
Mrs Chidinma A. Okolo	Mr Gerald N. Attamah	Dr Chinedu I. Atama
Charles O. Okoye	Kingsley C. Okoye	Mr Elijah C. Odii
Okorie Chidiebere	Johnson I. Odoh	Mr Nelson I. Ossai
	Dr Chika B. Ikele	Amoge G. Nwamba
	Bonaventure C. Ezenwanne	
	Otuchidebere Oluah	

FACULTY OF BIOLOGICAL SCIENCES

**BIO-RESEARCH:**  
JOURNAL OF BIOLOGICAL SCIENCE AND BIOTECHNOLOGY (JBSB)

**CALL FOR ARTICLES**

**ABOUT BIO-RESEARCH**

The Bio-Research is a multidisciplinary biological and biotechnology journal published by the Faculty of Biological Sciences, University of Nigeria, Nsukka. We publish scientific reports on biological and biotechnology subjects in the form of original articles, reviews brief reports, and case reports. We also accept review articles, special communications and editorials. The journal will cover technical and biological studies related to biology and biotechnology including ethical and social issues. Articles with biological interest and implications will be given preference. All submissions are subject to peer review by the Editorial Board and by referees in appropriate specialties. We will consider for publication manuscripts from any part of the world, but most particularly manuscripts that would be of interest to readers in the third world and Africa in particular.

**Peer Review Policy:** Submitted papers to this journal first undergo editorial screening, and upon satisfaction of the journal's scope and guidelines for the authors, proceed for double blind peer review.

**Publication office:** Dean's Office, Faculty of Biological Sciences, University of Nigeria, Nsukka, Enugu State, Nigeria.

**EDITORIAL TEAM**

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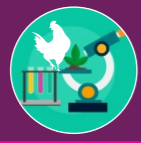
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