

ACENFTDFB SEED-GRANT FINAL REPORT

Introduction

The Africa Center of Excellence for Neglected Tropical Diseases and Forensic Biotechnology (ACENTDFB) at Ahmadu Bello University is dedicated to promoting entrepreneurial activities and supporting start-ups among researchers and students through a seed grant program. This program offers a one-time seed grant of 5 million Naira, disbursed in two installments, to encourage young researchers to pursue preliminary research and innovative start-ups.

The ACENTDFB Seed Grant Policy was developed collaboratively by key stakeholders within ACENTDFB and the university. A Seed Grant Implementation Committee oversees the policy, determining eligibility, funding amounts, focus areas, application procedures, and project proposal requirements. Each proposal must include technical specifications, a project plan, a detailed budget covering equipment, consumables, software, and qualifications of the team members.

Applications were reviewed by a Core and Expert Committee using a predefined rubric, with each application evaluated by three reviewers. A minimum mean score of 70% is required for selection. Shortlisted candidates present their proposals during a pitching session. The final approval is granted by the Center Leader, who notifies the awardees. Grant payments are made directly to the beneficiaries in two installments (70 and 30%) based on satisfactory progress. Awardees are required to keep detailed records of all expenses and submit certified bills for reimbursement.

Development of the Seed Grant Policy

The Seed Grant Policy was created by a five-member committee led by Prof. IS Ndams, with members including Prof. EO Balogun, Dr. MA Ibrahim, Prof. AB Sallau, and Barr. O.I Arigabede. Their consultations and baseline research conducted were key in shaping the policy.

Key Components of the Policy:

- **Eligibility:** Only researchers and postgraduate students from ABU can apply.
- **Funding Amount:** 5 million Naira for one year, split into two installments (70:30%).
- **Focus Areas:** Proposals must align with community needs and aim to address societal challenges through prototypes or start-ups.
- **Grant Deliverables:** Successful projects should lead to the development of prototypes, establishment of start-ups, and publications in high-impact journals.
- **Application Process:** Proposals should be submitted online using templates provided by the center. The application window is open from May 20 to June 19, 2024. The Core and Expert Committee will review proposals based on pre-set guidelines.

Seed Grant Policy Implementation Committee

The Seed Grant Policy is implemented by the Seed Grant Implementation Committee, chaired by Prof. IS Ndams, with members including Prof. EO Balogun, Dr. MA Ibrahim, Prof. AB Sallau, Prof. JJ Maina, Barr. OI Arigabede, Mrs. A. Murjanatu, Mal. Idris Abdulsalam (Secretary), and Ibrahim Babagida Sani (ICT).

Implementation Strategy: The committee developed detailed guidelines for the seed grant policy, covering timelines, resource allocation, and any partnerships or collaborations needed.

The Core and Expert Committees

The Core and Expert Committee comprises Prof. IS Ndams, Prof. M. Mamman, Prof. JP Kwaga, Prof. S Ibrahim, Prof. JJ Maina, and Prof. IB Bugaje, Barr. OI Arigabede along with Mal. I Abdulsalam and IB Sani of ACENTDFB, in attendance. This committee is responsible for developing the review guidelines, scoring proposals, and selecting those that will proceed to the pitching stage.

Each proposal was reviewed by three appointed experts in relevant fields. The evaluation criteria include:

- **Innovation and Creativity (30%):** Originality (10%), Creativity (10%), Relevance (10%)
- **Feasibility and Approach (20%):** Methodology (8%), Practicability (7%), Risk Management (5%)
- **Impact and Sustainability (25%):** Potential Impact (10%), Sustainability (8%), Scalability (7%)
- **Budget and Resource Allocation (15%):** Budget Detail (5%), Justification (5%), Resource Efficiency (5%)
- **Team Expertise (10%):** Qualifications (5%), Experience (5%)

A minimum score of 70% is required for a proposal to advance to the pitching stage.

SCREENING AND REVIEWING Results

Proposal Applications: Proposals were received until June 19, 2024, and each was assigned a unique code (APP_ACENTDFB_SG_XXXX).

Screening of Proposals: A total of 21 proposals were received, of which 5 were screened out due to incompleteness, leaving 16 proposals for review.

Appointment of Reviewers: The Core and Expert Committee appointed three reviewers for each proposal. The reviewers were contacted by phone to get their consent (Table1).

Proposal Reviews: Proposals and guidelines were sent to the reviewers via email and given two weeks to complete their evaluations. The review process was completed by the end of September 2024. Three proposals (APP_ACENTDFB_SG_002, APP_ACENTDFB_SG_007, and APP_ACENTDFB_SG_020) met the minimum score of 70%. Additionally, five other proposals with scores of 60% or above were recommended for pitching. In total, eight proposals were selected for presentations (Table 2).

Pitching Presentations

Eight Principal Investigators and their team members pitched their proposals to the Core and Expert Committee who scored the presentations based on an approved criterion. The criteria included innovation, feasibility, impact, budget allocation, and team expertise. The pitched mean scores were combined with the mean review scores to form the totals score upon which a recommendation was made for the grant award. The final scoring and results from the pitching sessions are detailed in accompanying table (Table 3).

Notably, a conflict of interest was identified in the APP_ACENTDFB_SG-007 proposal. It was discovered that a member who had reviewed their own proposal application participated in the pitching session. As a result, the Core and Expert team decided to exclude this reviewer's score from the final computation of the proposal's score.

Selection and Recommendation

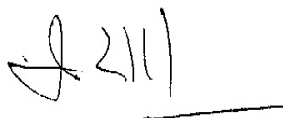
The Core Expert Committee reviewed the final scores and recommends the following Seed Grant Proposals for the 2024 ACENTDFB Seed Grant award. Table 4 lists the top five proposals, submitted by their respective principal investigators, which met the minimum requirements. A summary of the scores is provided below:

Proposal	Scores
• APP_ACENTDFB_SG_020	82.91
• APP_ACENTDFB_SG_002	79.90
• APP_ACENTDFB_SG_013	75.67
• APP_ACENTDFB_SG_016	73.83
• APP_ACENTDFB_SG_004	73.18

Table 5 shows the proposals selected, the amount of requested, names, department, Personnel Number and email address of principal investigators.

APPRECIATION

The Chairman and Committees members would like to express their gratitude to the Centre Leader and the ACENTDFB Management team for the opportunity to contribute to the development and implementation of the Seed Grant Policy, as well as the screening, reviewing, selection, and recommendation of the 2024 ACENTDFB Seed Grant awardees.



Prof. I.S. Ndams
ACENTDFB Seed Grant
Chairman

Table 1. ACENTDFB SEED GRANT PROPOSALS

APPOINTED REVIEWERS

2024

Serial No.	SEED GRANT REFERENCE NO.	Title of Proposal	Reviewer I	Reviewer II	Reviewer III
1	APP_ACENTDFB_SG_002	Development of novel toxoplasmosis prototype kit (ToxoRap) for commercialization	Prof. AJ Ajanusi	Prof. I Jatua	Prof. E. Kogi
2	APP_ACENTDFB_SG_003	Fabrication of an affordable ready-to-use Meri-Sonia Face Mask for Collagen Boosting and Detoxification: an ANti-skin Bleaching Perspective	Prof. YKE Ibrahim	Prof. AM Musa	Prof. HJ Makun
3	APP_ACENTDFB_SG_004	Development of a Point-of-Care (POC) Lateral Flow Test Strips (LFTSs) for the Simultaneous Detection of Malaria and Typhoid Fever	Prof. MN Shuaibu	Prof. JKP Kwaga	Prof. F. Giwa
4	APP_ACENTDFB_SG_006	Computational Design of Novel Therapeutics Targeting Schistosomiasis, a Neglected Tropical Disease	Prof. YKE Ibrahim	Prof. I Jatau	Pro SB Junaidu
5	APP_ACENTDFB_SG_007	Development of Multiplex Real Time PCR Genotyping Assay for Screening and Genotyping of High-Risk Human Papilloma Virus.	Prof. M Aminu	Prof. EO Balogun	Dr GSN Kia
6	APP_ACENTDFB_SG_008	An advanced, AI optimized capture and kill, mosquito trap that is entirely green.	Prof. MB Muazu	Prof. IS Ndams	Prof. SB Junaidu
7	APP_ACENTDFB_SG_009	Design and Optimization of One-Step Real-Time PCR Assay with TaqMan Probes for Rabies Virus Detection in Human and Animal Samples	Prof. JKP Kwaga	Prof. K. Junaid	Prof. EO Balogun
8	APP_ACENTDFB_SG_012	Development of <i>Azadirachta indica</i> silver nanoparticle adjuvant in rabies vaccine	Prof. K. Junaid	Dr GSN Kia	Prof. S. Ibrahim

9	APP_ACENTDFB_SG_013	Development of Novel Phytomedicine for Treatment of Urogenital Schistosomiasis	Prof. M Mamman	Prof. IH Nock	Prof. HJ Makun
10	APP_ACENTDFB_SG-014	Development and Evaluation of the Safety and Potency of Prototype Vaccine against Chikungunya Viral Infection in a Preclinical Trial	Prof. M Aminu	Prof. F Giwa	Prof AM Ibrahim
11	APP_ACENTDFB_SG_016	Development of Botanical Molluscicide for the Control of Snail Intermediate Host of Schistosomiasis	Prof IS Ndams	Prof. WS Japhet	Prof. OO Okunbanjo
12	APP_ACENTDFB_SG_017	Optimization for Safety of a Hybrid Prototype Reverse Tricycle Urban Shuttle	Prof. D Yawas	Prof. S Malachi	Prof. MB Muazu
13	APP_ACENTDFB_SG_018	Opening MUKHY Educational Hub	Prof. RB Bako	Prof. M Mamman	Prof. IS Ndams
14	APP_ACENTDFB_SG_019	Mapping Plasmid-Mediated Cephalosporin Resistant Salmonella among Schistosoma infected School-age Children and Adolescents in Zaria: A Community of practice approach	Prof. JKP Kwaga	Prof. YKE Ibrahim	Prof. C Kudi
15	APP_ACENTDFB_SG_020	Upscaling Glass and Granite Wastes Composite as Alternative to Porcelain Body for Developing High Performance Electrical Insulators	Prof. JJ Maina	Prof. IB Bugaje	Prof. EV Opoko
16	APP_ACENTDFB_SG_021	Development of Virtual Teaching and Learning Websites and Mobile Application for Entrepreneurship Purposes	Prof PI Sule	Prof. SB Junaidu	Prof. MB Muazu

Table 2. ACENTDFB SEED GRANT PROPOSALS REVIEWS AND REVIEWERS SCORES				Reviewer Scores			
Serial No.	SEED GRANT REFERENCE NO.	Title of Proposal	Reviewer I	Reviewer II	Reviewer III	AVERAGE SCORE	COMMENTS
1	APP_ACENTDFB_SG_002	Development of novel toxoplasmosis prototype kit (ToxoRap) for commercialization	55	89	75	73	Recommended
2	APP_ACENTDFB_SG_003	Fabrication of an affordable ready-to-use Meri-Sonia Face Mask for Collagen Boosting and Detoxification: an ANti-skin Bleaching Perspective	41	63	63	56	
3	APP_ACENTDFB_SG_004	Development of a Point-of-Care (POC) Lateral Flow Test Strips (LFTSs) for the Simultaneous Detection of Malaria and Typhoid Fever	58.3	69	68	65	Recommended
4	APP_ACENTDFB_SG_006	Computational Design of Novel Therapeutics Targeting Schistosomiasis, a Neglected Tropical Disease	51	55	54	53	
5	APP_ACENTDFB_SG_007	Development of Multiplex Real Time PCR Genotyping Assay for Screening and Genotyping of High-Risk Human Papilloma Virus.	78	70	61	70	Recommended
6	APP_ACENTDFB_SG_008	An advanced, AI optimized capture and kill, mosquito trap that is entirely green.	58	70	53	60	Recommended
7	APP_ACENTDFB_SG_009	Design and Optimization of One-Step Real-Time PCR Assay with TaqMan Probes for Rabies Virus Detection in Human and Animal Samples	71	52	41	55	

8	APP_ACENTDFB_SG_012	Development of <i>Azadirachta indica</i> silver nanoparticle adjuvant in rabies vaccine	73	68.5	51	64	Recommended
9	APP_ACENTDFB_SG_013	Development of Novel Phytomedicine for Treatment of Urogenital Schistosomiasis	64	63	78	68	Recommended
10	APP_ACENTDFB_SG-014	Development and Evaluation of the Safety and Potency of Prototype Vaccine against Chikungunya Viral Infection in a Preclinical Trial	60	41.5	48.5	50	
11	APP_ACENTDFB_SG_016	Development of Botanical Molluscicide for the Control of Snail Intermediate Host of Schistosomiasis	62	91	49	67	Recommended
12	APP_ACENTDFB_SG_017	Optimization for Safety of a Hybrid Prototype Reverse Tricycle Urban Shuttle	57	16	52	42	
13	APP_ACENTDFB_SG_018	Opening MUKHY Educational Hub	48	61	55	55	
14	APP_ACENTDFB_SG_019	Mapping Plasmid-Mediated Cephalosporin Resistant Salmonella among Schistosoma infected School-age Children and Adolescents in Zaria: A Community of practice approach	56	52.5	53	54	
15	APP_ACENTDFB_SG_020	Upscaling Glass and Granite Wastes Composite as Alternative to Porcelain Body for Developing High Performance Electrical Insulators	79	55	92	75	Recommended
16	APP_ACENTDFB_SG_021	Development of Virtual Teaching and Learning Websites and Mobile Application for Entrepreneurship Purposes	72	39	52	54	

Serial No.	SEED GRANT REFERENCE NO.	TABLE 3. ACENTDFB Seed Grant Proposals Scores		REVIEWERS SCORES				Pitching Scores						Mean	Total Scores
		Proposals Reviewers & Pitching Scores													
		2024		Reviewer 1	Reviewer 2	Reviewer 3	Mean	1	2	3	4	5	6		
		Title of Proposal													
1	APP_ACENTDFB_SG_002#	Development of novel toxoplasmosis prototype kit (ToxoRap) for commercialization		55	89	75	73.00	6	7	7.5	7	7		6.90	79.90
2	APP_ACENTDFB_SG_004	Development of a Point-of-Care (POC) Lateral Flow Test Strips (LFTSs) for the Simultaneous Detection of Malaria and Typhoid Fever		58.3	69	68	65.10	8	6.5	9	8	8	9	8.08	73.18
3	APP_ACENTDFB_SG_007*	Development of Multiplex Real Time PCR Genotyping Assay for Screening and Genotyping of High-Risk Human Papilloma Virus.			70	61	65.50	7	6	8	7	8	6	7.00	72.50
4	APP_ACENTDFB_SG_008	An advanced, AI optimized capture and kill, mosquito trap that is entirely green.		58	70	53	60.33	5	8.5	7	6.5	9	7	7.20	67.53
5	APP_ACENTDFB_SG_012	Development of <i>Azadirachta indica</i> silver nanoparticle adjuvant in rabies vaccine		73	68.5	51	64.17	7	9.5	6	6	7	6	6.92	71.08
6	APP_ACENTDFB_SG_013	Development of Novel Phytomedicine for Treatment of Urogenital Schistosomiasis		64	63	78	68.33	7	9	6	8	7	7	7.33	75.67
7	APP_ACENTDFB_SG_016	Development of Botanical Molluscicide for the Control of Snail Intermediate Host of Schistosomiasis		62	91	49	67.00	6	7	6.5	8.5	7	6	6.83	73.83
8	APP_ACENTDFB_SG_020	Upscaling Glass and Granite Wastes Composite as Alternative to Porcelain Body for Developing High Performance Electrical Insulators		79	55	92	75.33	8	8	8.5	6	8	7	7.58	82.91

- Score of the first reviewer was excluded from further analysis because of conflict of interest
- # 5 assessors for this proposal during pitching

Table 4. ACENTDFB SEED GRANT PROPOSALS REVIEWS				
PROPOSALS FINAL SCORES				
Serial No.	SEED GRANT REFERENCE NO.	Title of Proposal	Total Scores	Principal Investigator
1	APP_ACENTDFB_SG_002	Development of novel toxoplasmosis prototype kit (ToxoRap) for commercialization	79.90	Prof. EO Balogun, Department of Biochemistry, ABU, Zaria
2	APP_ACENTDFB_SG_004	Development of a Point-of-Care (POC) Lateral Flow Test Strips (LFTSs) for the Simultaneous Detection of Malaria and Typhoid Fever	73.18	Dr. Yusuf Wada, Department of Zoology, ABU Zaria
3	APP_ACENTDFB_SG_007	Development of Multiplex Real Time PCR Genotyping Assay for Screening and Genotyping of High-Risk Human Papilloma Virus.	72.50	Mal. Saleem Abubakar, Department of Microbiology, ABU, Zaria
4	APP_ACENTDFB_SG_008	An advanced, AI optimized capture and kill, mosquito trap that is entirely green.	67.53	Dr Laminu Shettima Kuburi, Department of Mechanical Engineering, ABU Zaria
5	APP_ACENTDFB_SG_012	Development of <i>Azadirachta indica</i> silver nanoparticle adjuvant in rabies vaccine	71.08	DR. UCHE SAMUEL NDIDI, Department of Biochemistry, ABU, Zaria
6	APP_ACENTDFB_SG_013	Development of Novel Phytomedicine for Treatment of Urogenital Schistosomiasis	75.67	Mr. Umar Aliyu Umar, Department of Biochemistry, ABU Zaria
7	APP_ACENTDFB_SG_016	Development of Botanical Molluscicide for the Control of Snail Intermediate Host of Schistosomiasis	73.83	Mr. Umar Saidu, Department of Biochemistry, ABU, Zaria
8	APP_ACENTDFB_SG_020	Upscaling Glass and Granite Wastes Composite as Alternative to Porcelain Body for Developing High Performance Electrical Insulators	82.91	Prof. Adele Dzikwi Garkida, Department of Glass & Silicate Technology, ABU Zaria

		TABLE 5. RECOMMENDED SEED GRANT PROPOSALS		Amount applied by Principal Investigators	
		PROPOSALS FINAL SCORES, Amount and Principal Investigators			
Serial No.	SEED GRANT REFERENCE NO.	Title of Proposal	Total Scores	AMOUNT (₦) Requested	Principal Investigator
1	APP_ACENTDFB_SG_002	Development of novel toxoplasmosis prototype kit (ToxoRap) for Commercialization	79.18	4,998,980.00	Prof. EO Balogun, Department of Biochemistry, ABU, Zaria P17735, eobalogun@abu.edu.ng; oluwadareus@yahoo.com
2	APP_ACENTDFB_SG_004	Development of a Point-of-Care (POC) Lateral Flow Test Strips (LFTSs) for the Simultaneous Detection of Malaria and Typhoid Fever	73.18	4,990,000.00	Dr. Yusuf Wada, Department of Zoology, ABU Zaria P23983. wadayusuf34@gmail.com; ywada@abu.edu.ng
3	APP_ACENTDFB_SG_013	Development of Novel Phytochemistry for Treatment of Urogenital Schistosomiasis	75.67	4,950,000.00	Mr. Umar Aliyu Umar, Department of Biochemistry, ABU Zaria P24131, talktumarali@gmail.com
4	APP_ACENTDFB_SG_016	Development of Botanical Molluscicide for the Control of Snail Intermediate Host of Schistosomiasis	73.83	4,975,850.00	Mr. Umar Saidu, Department of Biochemistry, ABU, Zaria P25,075, biosaeed1@gmail.com
5	APP_ACENTDFB_SG_020	Upscaling Glass and Granite Wastes Composite as Alternative to Porcelain Body for Developing High Performance Electrical Insulators	82.91	4,605,500.00	Prof. Adele Dzikwi Garkida, Department of Glass & Silicate Technology, ABU Zaria P14,825, adelezik@yahoo.com; adgarkida@abu.edu.ng

