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Navigating the Grant Application Process: Tips for Successful Submissions

A Lecture Delivered By

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16TH JULY, 2024



Research

Research is the ***systematic collection, analysis and interpretation of data*** to answer a certain question or solve a problem



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PURPOSE OF RESEARCH

A research can be undertaken for three different purposes:

1. To solve a currently existing problem (applied research)
2. To contribute to the general body of knowledge in a particular area of interest (basic/fundamental research)
3. To enhance CV- “Publish or Perish”



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TYPES OF RESEARCH

- Multidisciplinary research
- Basic versus applied research scientific experiments for light (i.e. knowledge) Basic (Not yet applied) and experiments for fruit – Applied
- Quantitative versus qualitative research



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Nigerian Universities and Research



- Limited research reaches a commercial state.
- Research is mainly for publications and career development
- No revolutionary products and processes, despite claims of inventions and breakthroughs.
- Nigerian universities perform below average if they are to contribute to national development.



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NEED-DRIVEN RESEARCH

At the beginning of this Millennium:

- Food insecurity,
- Security challenge
- Poverty,
- Natural resource degradation, and
- Lagging economic development

continue to affect the lives of hundreds of millions of people in the developing world



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SELECTING RESEARCH TOPICS

- Personal experience.
- Evaluating the effectiveness of an intervention
- Curiosity about something in the media
- State of knowledge in the field
- Solving a problem.
- Hot topics under discussion
- Personal values
- Gaps in the research and theoretical literature



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CRITERIA FOR GOOD RESEARCH QUESTION

1. Feasible
2. Interesting
3. Novel
4. Ethical
5. Relevant



What to take note of:

- Is my idea really good?
- Do I really have the scientific competence to undertake the research?
- Will the “funders” be interested in my research idea?



KEY ELEMENT TO SUCCESSFUL GRANT WINNING

- innovative research problem with best probable idea/plan for tackling it
- appropriate planning of budget

(Patil, 2019)

WHAT ARE GRANTS?



- ✓ Money and other resources provided to aid and assist organizations in funding projects that benefits the public.
- ✓ Sum of money given by an organization, such as government, Foundation or trust, or individual to a recipient for a particular purpose.
- ✓ a non-refundable money but it is provided with safety nets for proper accountability.



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WHY DO YOU NEED GRANTS?

1. Professional Development
2. Paucity of Public Fund for Research
3. Need to improve dilapidated research facilities
4. Ranking of Universities
5. Response to Environmental Challenges
6. Curriculum vitae



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TITLE



A good research proposal must have a descriptive title :

A good title:

- briefly identifies the subject or type of research,
- includes basic key words (for indexing purposes),
- indicates the purpose of the study and
- rarely exceeds nine-fifteen words.

The title must interest as well as describe.

Use nouns or verbs that are meaningful and have both high impact and high content.



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TITLE



Production of Immobilized Industrial amylase from micro-fungi Fermented Cassava waste-water

Keywords: cassava waste-water, amylase, immobilized-amylase, physicochemical properties

Development of Sustainable Selenium Fortification Programme as Dietary Intervention for Prevention/ Management of HIV/AIDS in Nigeria

Keywords: HIV/AIDS; Selenium; bio fortification; Antioxidants; Vegetables

EXECUTIVE SUMMARY



- Background
- Objective
- Methodology
- Expected Output
- Duration
- Cost

GENERAL BACKGROUND



Provide a general background of the problem and justification leading to the proposed research project



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Clearly Stated Objectives

Aim: This research aims to determine the effect of selenium-biofortified vegetable-based diets in HIV/AIDS patients.

General Objectives: The main objective of this study is to determine the selenium levels in soils, water and foods in Nigeria, and to establish the best vehicle for supplementing selenium in soil and foods as dietary means of preventing/ managing HIV/AIDS.

Specific Objectives: The specific objectives of the project are to:

- determine the selenium content of selected soils, water and foods in the six geopolitical zones in Nigeria;
- quantify the rate of bioaccumulation of selenium in vegetables grown on selenium – fortified soils;
- evaluate the safety of Selenium-biofortified vegetables; and
- assess the efficacy of Se-biofortified diets in the management of HIV/AIDS patients using antioxidant status, reduction of CD-4 count, viral load and serum marker enzymatic activities as response indices.



Statement of the problem

There has been consistent increase in cases of HIV/AIDS in Nigeria.

Unfortunately, the various interventions currently used for prevention/management of HIV including social campaign for safe sex/abstinence and antiretroviral drugs are limited and not holistic.

However, available studies indicate that death from AIDS is lower among people with higher intake of selenium.

Conceptual framework of the study



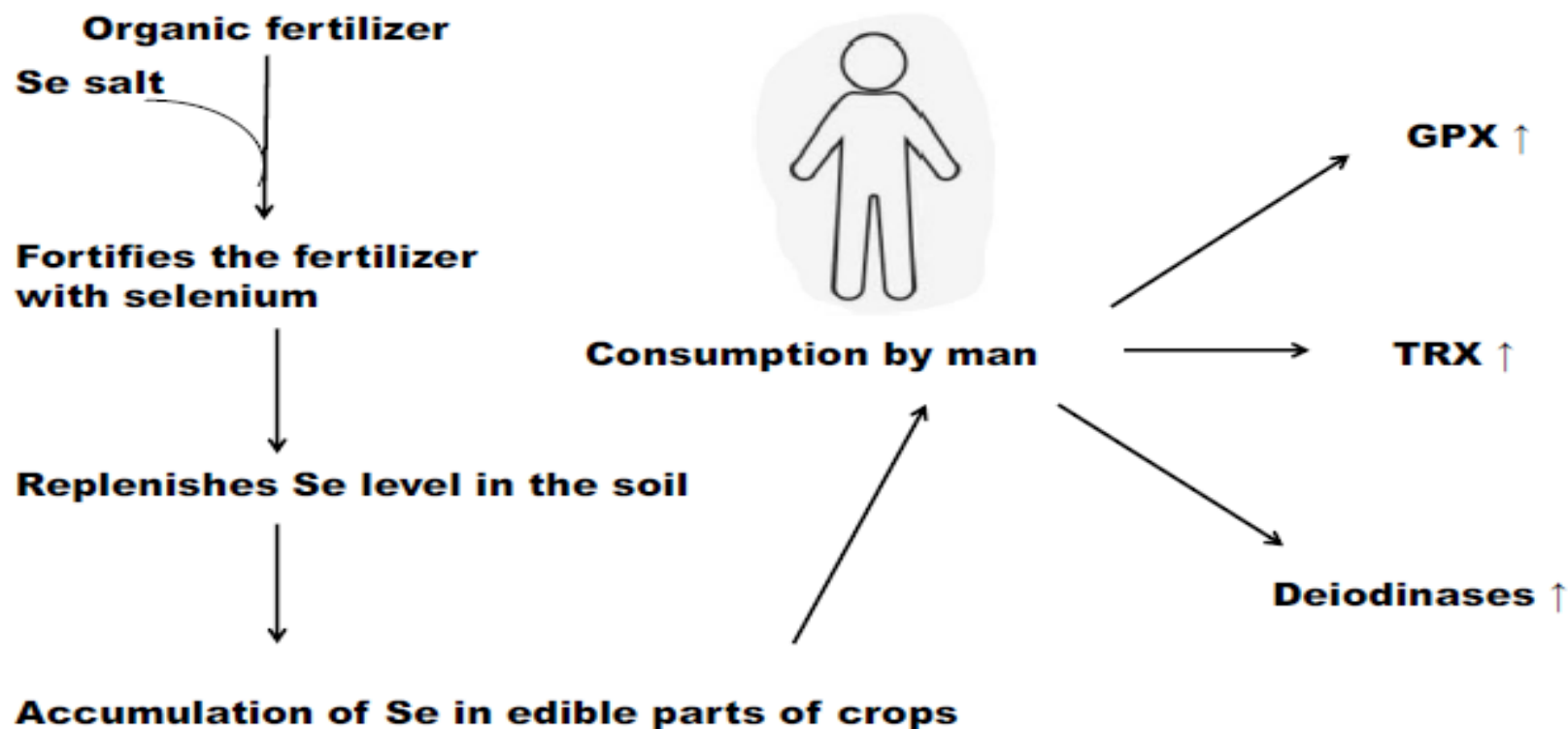
Clearly identify and define the central concepts or ideas underlying the study

Glutathione peroxidase (GPX) is a seleno-protein and antioxidant component of the body. It has been noted that the activity of GPX enzymes decrease rapidly at early stage of selenium deficiency. However, HIV encodes a seleno-protein with similarity to GPX hence depriving the host of selenium and other components needed for endogenous synthesis of GPX. Also, a decreased GPX activity can induce oxidative stress that promotes degenerative diseases. Furthermore, adequate levels of Se are necessary for the immune system, and particularly T-cells, to function properly and a depletion in Se could lead to immune deficiencies characteristic of viral infections. Therefore, a conscious effort to increase dietary sources of Se would go a long way at curbing selenium deficiencies and promote high immune and antioxidant response to viral diseases.



Conceptual framework of the study

Clearly identify and define the central concepts or ideas underlying the study



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Literature Review



- A good proposal must show what has been done by earlier research workers (*avoid 're-invention of the wheel'*), what still needs to be done, and why earlier research did not achieve the desired objectives.
- Proper and current literature search on the status of R&D on the subject to be investigated is a measure of the seriousness of a proposal !



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PROJECT GOALS



Provide a summary of the short and long term goals of the project. Indicate clearly the problems the project will help to address

Long term goal

The main goal of this project is to develop a sustainable selenium fortification programme in the six geopolitical (North-east, North-west, North-central, South-south, South-east and South-west) zones of Nigeria as dietary intervention in the prevention and/or management of HIV/AIDS in Nigeria

Short term goal

The immediate goal of this research is to improve soil selenium content and ultimately food selenium content in six geopolitical zones of Nigeria and to create awareness on the potentials of selenium-rich foods as dietary intervention for HIV/AIDS prevention and management.



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Project Impact

Provide information on the long-term impact of the project within the context of;

- social,
- economic and
- technological benefits



RESEARCH METHODOLOGY

This project will be carried in seven interrelated phases

Phase I: Samples and Data collection on HIV/AIDS status

Activity 1: Study location and Sample collection

- Preliminary Investigation
- Field Studies

Activity 2: Data collection on HIV/AIDS status in the zones

Phase II: Determination of Selenium content of soil, water and food

Activity 3: Determination of Selenium content of soil

Activity 4: Determination of Selenium content of water

Activity 5: Determination of Selenium content of food



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Project Activities and Output

Give details of expected output from the research grant i.e. results to be obtained/produced within the proposed time frame of the project

2.5. Activity Indicators [Clearly state the indicator(s) of each major activity of the project]

Activity	Indicator
Study location and Sample collection	<ul style="list-style-type: none">• Availability of data on the selenium distribution in soils and waters in the six geopolitical zone in Nigeria.• Availability of data on the HIV/AIDS prevalence in the six geopolitical zones
Determination of Selenium content of soil, water and food	<ul style="list-style-type: none">• Availability of data on the selenium content of soils, waters and foods in the six geopolitical zones in Nigeria.• Availability of data on the correlation of selenium content of soils, waters and foods and HIV/AIDS prevalence, in the six geopolitical zones



TIME FRAME

Provide a timeline for the major activities of the project

2.4 Time Frame: [Provide a timeline for the major activities of the project.]

S/N	Description Of Activity	Duration	Year	Quarter			
				1 st	2 nd	3 rd	4 th
1	Study location and Sample collection	2 months	2020	■			
2	Data collection on HIV/AIDS status in the zones	3 months	2020	■	■		
3	Determination of Selenium content of soil, water and food	2 months	2020		■		



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Data Management and Analysis

- **Analysis of variance (ANOVA)**
- **Mean separation will be done using Fischer's Least Significant difference**
- **Correlation coefficient of Se and HIV/AIDS prevalence will be determined**



Ethical and Environmental Considerations

- **University Ethical Committee for the use and care of Laboratory animals**
- **State Ministry Health Ethical Clearance for Clinical Trial**
- **Informed consent**

Monitoring and Evaluation Mechanism

- **Procurement Officer and Project Account Officer**
- **Indicators for each activity will be monitored**
- **Field assistants will be closely monitored**
- **Research group meetings**

Dissemination Strategies

- **Publication in high impact journals**
- **Presentation in conferences**
- **Organize Seminar and Workshop**
- **Television, Radio, Prints and Social Media**



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Budget

Standard budget items will include:

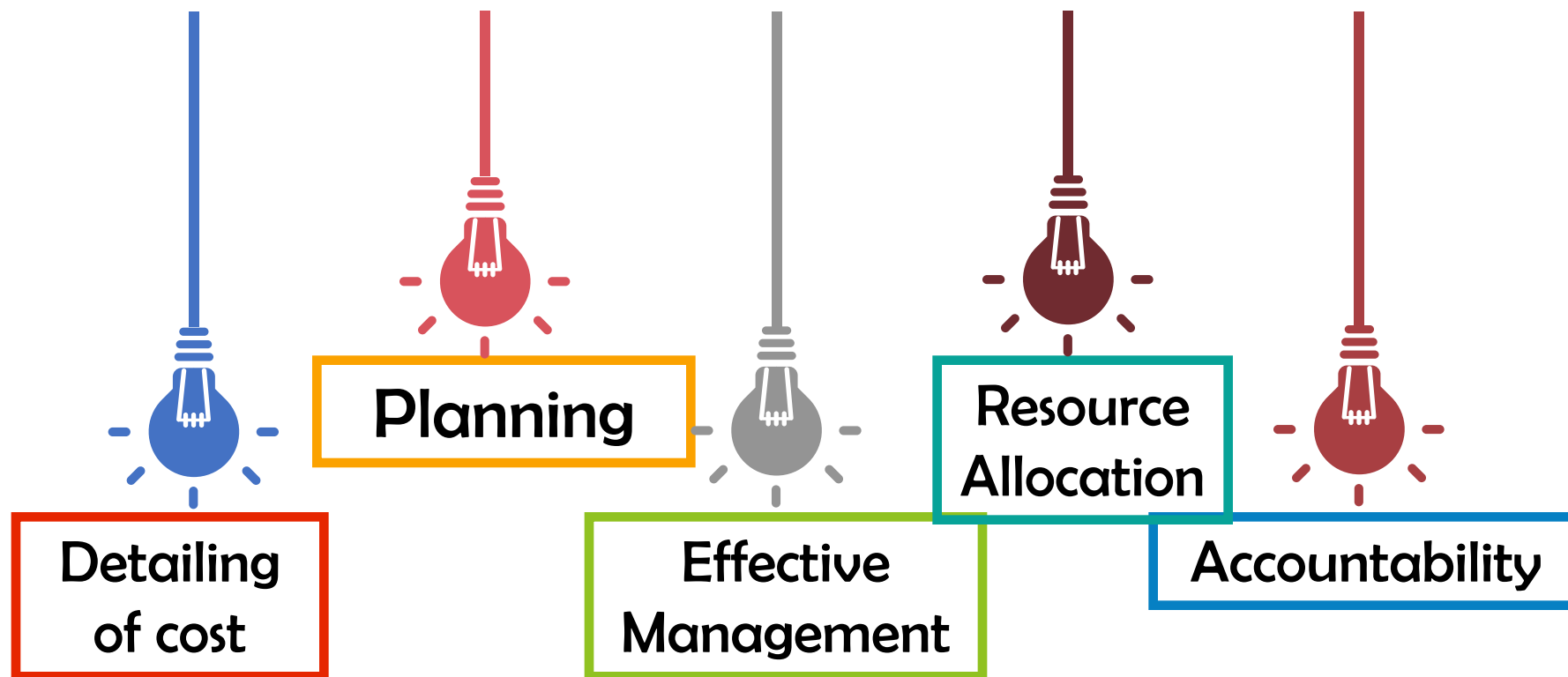
- personnel
- equipment/building/automobile
- consumables - supplies/chemicals/reagents
- data analysis
- project administration: review meetings, coordination, etc
- report preparation and publication
- miscellaneous



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PURPOSE OF THE BUDGET



Show the funder exactly what they can support and what their money will pay for



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“Accepting a brilliant research proposal with a budget section that misfits its research finance is just like buying an exquisite item without counting the money you paid for it.

(Hardavella et al. 2016)

Hence, the funding agencies always give importance to the budget information provided for the research conduction before approving any grant proposal.”

Team Member



- A good proposal should clearly define the roles of the participants and their expertise. Research cooperation is essential although individual scientists must nevertheless accept responsibility for one or more objectives within a project.
- When individual projects are small, a scientist may have responsibility for one or more projects. Funding/donor agencies are very keen on value for every cent spent ! They are therefore more comfortable with project leaders with known track records. *But note, putting “big names” without relevant roles in a project can be counterproductive to the success of your proposal.*



GENERAL TIPS



- Format
- Focus
- Budget
- Frustrated
- Graphics
- Submission deadline
- Short and Simple
- User friendly



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Now what happens?

Your application goes to a peer review panel.

The members of the panel get a big box of grant applications, at which time they mutter expletives which cannot be repeated here.

The box with the grant applications sits on the reviewer's desk (or the floor) until the time before the meeting gets short.

Eventually, the time comes and your grant application undergoes ***peer review***.

Review Outcomes



**There are only two
possible
outcomes.....**



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OR



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What if it is rejected?



Odds are, especially for your first application, that it will not be funded on the first try.

So, get mad for awhile.

Then, get over it and plan a revised application.

A revised application may or may not permit you respond to the previous critique. Follow the guidelines.

Be positive in your response, thanking the panel for their insightful advice. But don't be afraid to point out your disagreement, doing it respectfully, if appropriate.

Involve your experienced colleagues in the process.

Send it back.

The most important word in grantsmanship is persistence.



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WHY PROPOSALS ARE REJECTED



Research scope too broad and unfocussed; disconnect between title and content

Little originality in research ideas/content

Low value-addition profile i.e. research content not novel or strikingly new

Poorly written Executive Summary

Poorly stated research objectives



Reasons for the failure of most rejected proposal cont'd



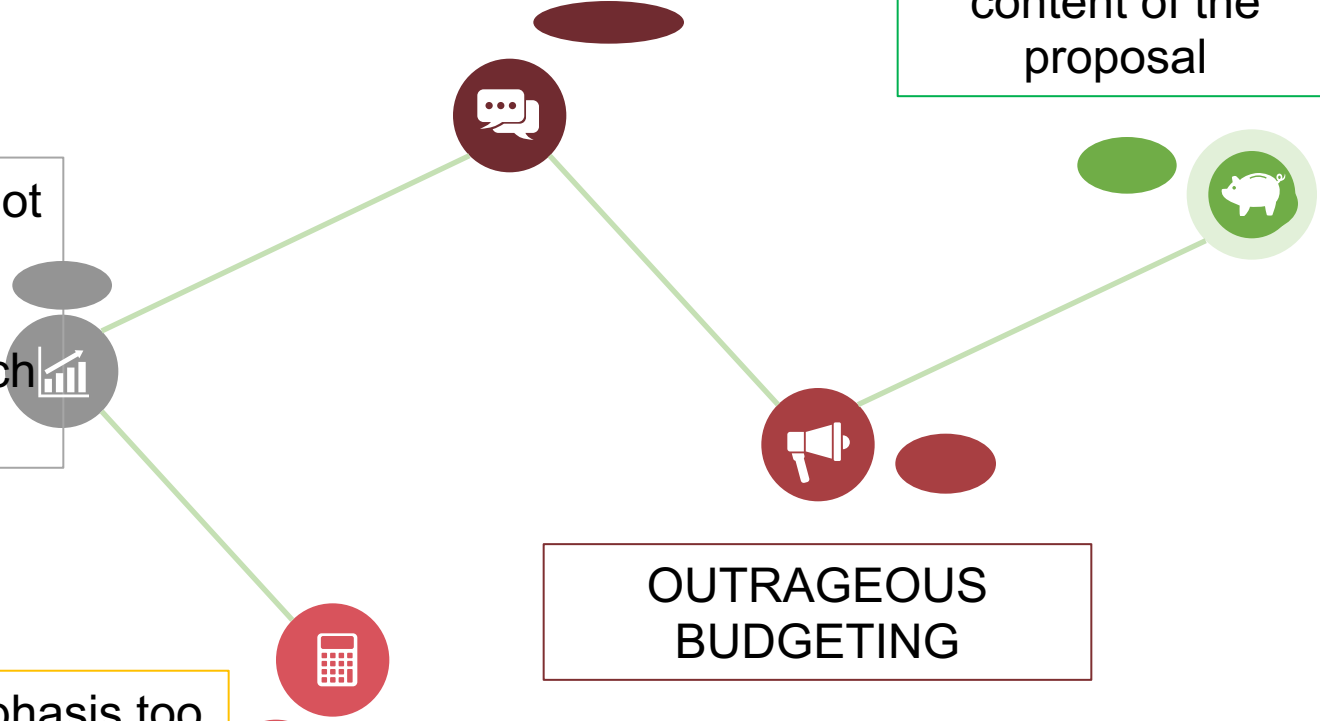
Unsatisfactory/inadequate methodology for addressing core research goals

Inadequate or shallow research content of the proposal

Choice of mundane or not up-to-date analytical tools/methods in addressing core research content

Research emphasis too localized to be nationally competitive

OUTRAGEOUS BUDGETING



3
8

Reasons for the failure of most rejected proposal cont'd



If the Institution does not have adequate oversight to monitor the utilization of the research grant



If the PI does not show enough integrity for the handling of the fund and management of the project



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Some Grant Awarding Bodies



- Academy of Sciences for Developing World (TWAS).
- Swedish International Development Agency (SIDA)
- Alexander von Humboldt (AvH) Foundation, Germany
- African Academy of Sciences (AAS), Kenya
- Chinese Academy of Sciences (CAS), China
- International Foundation of Science (IFS)
- DFID – Britain
- ICGEB– Britain
- IDRC – Canada
- EU



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Some Grant Awarding Bodies



-
- TETFund, Nigeria
- Senate Research Grant
- NARSDA



Conclusion

A NOTE OF CAUTION TO ALL R & I
PROPONENTS

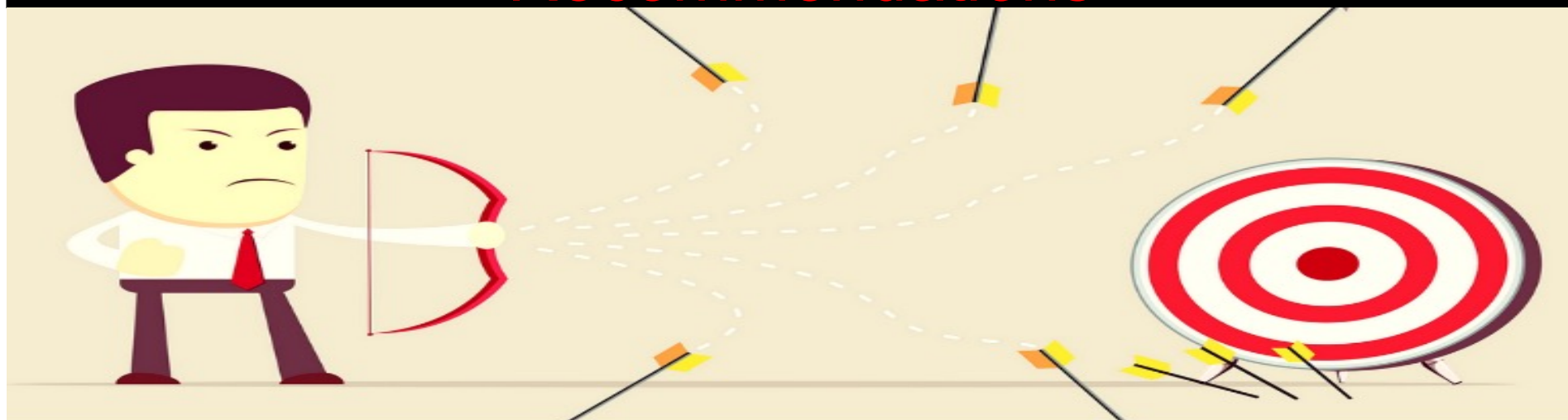
**Research grants are won, NOT just by the BEST,
but by The BEST OF THE BEST proposals !**



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Recommendations



**FAILING DOESN'T MEAN YOU'RE NOT
GOOD ENOUGH, IT'S JUST AN
INDICATION THAT YOU NEED TO WORK
ON IT SOME MORE TO GET BETTER AT IT**



FFNU members



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Arigato

Mahalo

Grazie

Spasiba

THANK
YOU

Thinks
Moite

Gracias

Merci

Danke

Shukran



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