

WRITING A SUCCESSFUL RESEARCH GRANT

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What is a grant?

- “A grant is a **mechanism** by which an agency awards **money** to fund a research study or other activity, such as an educational program, service program, demonstration, or research project.”

Gitlin, L. N. and Lyons, K.J. Successful Grant Writing: Strategies for Health and Human Service Professionals. 2nd ed. (2004),p.xi

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What is a Grant?.....

- A Grant is a **conditional gift** or a conveyance of funds with **strings** attached.
- The funding source identifies the **problem** they want addressed, but no **outcome** is known.
- The **idea** originates with the **grantee**.

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Types of Grants

- **Concept Paper**
 - 2-4 pages
 - highlights
- **Pre-proposal (LOI)**
 - ≥ 5 pages
 - reviewed
 - invited to submit full proposal
- **Full Proposal**
 - from >10 pages
 - **Forms to be completed**
 - **attachments**
 - **specific format**
- **Curriculum Proposal**
 - **clear task force**
 - **faculty involvement**
 - **advisory committee**

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A grant proposal is a selling document written to:

- Influence **decision-makers**
- Convince them to **commit funds** in support of a **specific project**
- A winning proposal **addresses an important question with an innovative idea**, well expressed, with a clear indication of **methods** for pursuing the idea, **evaluating** the findings, and making them **known** to all who **need** to know

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Why apply for a grant?

- **Advance scientific knowledge in your field AND advance your professional career.**
- **A grant means that experts in the field acknowledge your idea as important and worthy of public or private support.**
- **A grant means an enhanced prestige of your institution.**
- **A grant means a contribution to the financial health of your department, school/faculty or institution**
- **A grant means new opportunities for your research collaborators/assistants.**
- **A grant means a newly funded program that otherwise can be too expensive for your institution to support and implement**

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Why start now?

- ❖ Grant writing is an important part of your professional growth strategy.
- ❖ It should become a long-range plan for your professional growth and development:
 - Build individual credentials
 - Build a track record of funding
 - Work on teams with more experienced researchers
 - Develop a plan for long-range, personal development

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Funding = Your interest + The interests of a funding agency

- “No matter how good your idea and how well-written your proposal, if the agency to which you are applying is not interested in your project, you will not be funded!”

“Even the best idea will not be funded unless it matches the interest of a funding agency. Competitive ideas must reflect both contemporary thought in a field and the interests of an agency”

Rief-Lehrer, Liane. Grant Application Writer's Handbook. 4th ed. (2005)

(Gitlin, 2008)

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How do I get a grant?

- Sourcing from potential funding agencies on the net (funding databases), from colleagues, institution, network, advertisements etc
- Some major Funders include:
 - WHO
 - EU
 - CDC, NIH
 - Governments
 - Private Sector (NGOs, Foundations, Charities, Trust Funds etc)
- ❖ Usually very competitive and so your proposal must comply with requirements of funding agency and be outstanding!!!

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Writing a Grant

- Be prepared to write, rewrite, and rewrite.
- Writing a grant takes time; plan a working schedule.
- A well-written proposal should be clear, focused, precise and in accordance with funding agency's guidelines.
- A poorly written proposal has the potential to limit the chances of having a competitive idea funded.

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What are the key steps in Writing a Successful Grant? (i)

- **Source for grants in your area of expertise – data base**
- **Study in details the guidelines and note the deadline for submission**
- **Assemble a team of experts and stakeholders to review grant requirements and assign roles to team members**
- **Contact funding agency for clarifications and additional information**
- **Develop proposal following guidelines and PI should collate team member's submissions into a draft.**

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What are the key steps in Writing a Successful Grant? (ii)

- **Circulate draft proposal for review by team members – internal review. If there are northern collaborators engage them in the proposal editing process – external review.**
- **Complete all grant application forms and get them signed by appropriate institutional authorities.**
- **Ensure that the proposal with appendices and completed/signed forms are reviewed one last time for correctness**
- **Submit final grant application package a few days before deadline.**

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Qualities of Effective Grant Writing

- **Quality of the idea and its appeal to the funding source**
- **The ability to communicate clearly and concisely sometimes in accordance with laid down guidelines.**

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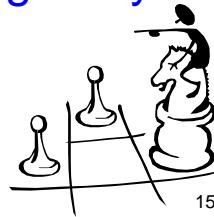
The Process

- **A good idea**
- **A good institutional fit**
- **Assemble a winning team (competence)**
- **Match the idea to a sponsor**
- **Read the Guidelines**
- **Read them again**
- **Contact the sponsor**
- **Develop the idea in a good proposal - plan**
- **Develop the budget from the detailed plan**
- **Read the guidelines again with narrative in mind before submitting**
- **Be persistent - revise and resubmit in case of first rejection.**

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Writing a Grant Proposal is like Playing a Game

- **You have to play by the Rules**
- **Get** the (most recent) guidelines
- **Read** the guidelines
- **Follow** the guidelines religiously



What are “Guidelines?”

- **May be short, 1 page or so. Or might be up to 10 pages. (Some funding agencies have almost 100 pages!)**
- **They indicate how they want to see the finished proposal arrive at their door step!!**
- **Access the funding agency’s guidelines and follow them to the latter!**

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Guidelines usually include:

- Agency **priorities/themes**—what areas they are interested in funding
- Format issues: Page limits, word count limits, margin & font size limitations etc
- **Budget information**
- **Deadlines (hard copy or email; postmark or receipt; don't forget time zones!)**

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What are the Components of a Typical Proposal?

Common Heading	Who Completes	Answers the Question
Cover Sheet	Co-PIs	Who are we?
Table of Contents	Co-PIs	What's in the proposal?
Abstract	PI	What's the big picture?
Problem Statement	PI	Why should we do this now?
Goals/Aims	PI	What are we trying to accomplish?
Measurable Objectives	PI	What will be different?
Procedures	PI/Co-PIs	What exactly are we going to do and when?
Evaluation	PI	How will we know if our idea works?
Dissemination	PI	Who else will benefit? How will we share data?
Facilities	PI	Do we have the necessary tools/resources/capacity?
Personnel	PI	Who will do the work? Are they qualified?
Budget	PI/Co-PIs	How much will it cost?
Biographical Sketch	PI/Co-PIs	How competent are the players?
References	PI	Whose work are we building on?
Appendices	PI	What else do the funders need to make a decision?

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Parts of a Grant Application.....

- Cover Page
- Table of Contents
- Abstract
- Problem or Needs Statement
- Goals and Objectives
- Methodology
- Quality of Key Personnel
- Evaluation
- Dissemination
- References Cited
- Budget & Narrative
- CV
- Appendices
- Forms, Certifications and Assurances

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Cover Page: Project Title/Investigators

Essentially contains the key words related to the project goal and objectives. Specifically it should have the following characteristics:

- Short. Should not be more than 122 letters by standard practice.
- It should reflect work that will be done (objectives)
- May contain parameter (s) to be measured
- Indicate the target population under study
- Indicate area of study

For example:

The effect of malaria parasitaemia on low birth weight of newborns from Fako Division, South Western Cameroon

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INVESTIGATORS & AFFILIATIONS

Persons who will play a direct role or participate in the implementation of the project and their institutional addresses.

Each person therefore has defined roles in the project e.g

- PI
- Co-PIs
- Biostatistician
- Clinical experts (Doctors/Nurses etc)
- Technicians
- Field Workers etc.

Please do not add names just to respect people or give them benefits!!!!

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Co-applicants

- Good
 - This could be strength if you are a junior investigator with a limited track record.
 - If the investigator lack specific skills, a co-applicant can bring these skills to the research project.
- Reject
 - It is a weakness to add a co-applicant if they just give you a reagent
 - Co-applicant will do most of the project in their laboratories.

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The Abstract

- It may be short, but it packs a punch...
 - Reviewers read it first. You need to grab their attention
 - Should be brief—200 words/1 page
 - It should be able to stand alone (it maybe all the reviewers will read)
 - Clear concise, one page, single spacing
 - It appears first, but it should be written LAST
- The Abstract should answer the basic questions:**
- **What:** Topic of project, goals, objectives. What do you intend to do?
 - **Why:** Problem/Issue to be addressed. Why is the work important?
 - **How:** Methods, procedures. How are you going to do the work?
 - **Who:** Target population, group served or studied
 - **When** Project dates, duration
 - **So what:** Significance, expected outcomes

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Summary of Research Proposal

- **Good**
 - give a short but informative background to justify the research hypothesis and objectives.
 - Clearly state the hypothesis.
 - State the objectives and/or aims of this proposal.
 - State the impact, significance and innovation in this proposal.
 - Define acronyms as much as possible.
- **Reject**
 - Technical and condensed phrasing of the project.
 - No clear statement of what is the purpose of this study.

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BACKGROUND/INTRODUCTION

Presentation of existing/current literature highlighting the problem (or disease burden), current knowledge in the area of study and ending with the existing knowledge gap which will constitute the basis for your work.

Last paragraph must be a sentence stating clearly what the study is all about.

It should have updated references confirming that your work is contemporary.

Generally it starts with a larger view of the problem and narrows down to specifically what you intend to work on.

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PROJECT RATIONALE

❖ **Generally it relates to the significance of the study.**

❖ **You have to justify in this section why you are doing this kind of study and what will be the contribution of the data generated in terms of**

❖ **New knowledge,**

❖ **Evidence for policy change or new intervention (s);**

❖ **Improved health status of affected study target group etc**

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Problem Statement

A Good Problem Statement Should:

- Show that you understand the problem
- Demonstrate that this is an important problem to solve, not only regionally but nationally as well
- Clearly describe the aspects of the problem that your project will address, and what gaps this will fill
- Describe the theoretical or conceptual basis for your project and your knowledge of the issues surrounding your proposed project
- Include statistical data, if appropriate
- Demonstrate that your approach is creative or innovative
- Describe how this project fits into the already existing goals of the organization

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Ending a Needs Statement

- Emphasize the significance of the project
 - what will be the result
 - what impact will it have
 - will the impact continue
- You might present your project as a model
- Always address the priorities of the funding agency
- Forecast the usefulness and importance of the results

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Goal

- Both the goals and objectives should flow logically from the statement of need.
- Goals convey the ultimate intent of the proposed project, the overarching philosophy, **A CONCISE STATEMENT OF THE WHOLE PURPOSE OF THE PROJECT.**
- The opening statement of this section should begin with “the goal of this project is to...”

What will be done, when and the benefit of the findings. It gives the parameters to be measured/investigated, when the study should be completed and the value/benefit of the data generated in one sentence!

For example:

The goal of this project is to elucidate by June 2016 the roles of antibodies and some gene polymorphisms in the pathogenesis of severe malaria in African children and thus help improve the management of the disease

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RESEARCH HYPOTHESIS

- Generally the null hypothesis should be stated.
- Also you can have more than one hypotheses in a study.
- A good hypothesis makes your research objectives obvious.

Example:

1. Short people are noise makers and are very troublesome.
2. Children born from malaria infested placentas have low birth weight.

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Details of Research Proposal

- **Rationale and Hypothesis.**

- **Good**

- **Clearly state the hypothesis or number of hypotheses that will be addressed in the proposal.**
 - **Give a rationale why this hypothesis is important to investigate.**

- **Reject**

- **Avoid combining the two together. It could be confusing to the reviewer.**
 - **Too long of a hypothesis makes it hard to understand the aim of the research.**

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RESEARCH OBJECTIVE(S) I

General/Main/Overall Objective:

- **What is going to be done**
- **Who is going to be involved,**
- **Where are the study participants located and**
- **What is the value/significance of the results?**

For example:

1. **This study is designed to investigate the effect of malaria parasitisation of the placenta on the birth weight of the newborns from Fako Division so as to provide useful data for future antenatal intervention to improve on neonatal birth weight.**

- Objectives discuss **who** is going to do **what**, **when** they will do it, and **how** it will be measured.
- Conveys the desired end results of the project.
- But not how those results will be accomplished.
- They are **action oriented** and often begin with a verb.
- In a research proposal the objectives are the hypotheses, they are less specific, but reinforce that the project is conceptually sound.

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Research Objectives should be:

- S – Specific
- M – Measurable outcomes
- A – Achievable, attainable
- R – Realistic
- T – Time-bound, achievable
in a specified time period



A well thought-out project will have

- one or two goals
- several objectives related to the goals
- many methodological steps to achieve each objective.

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RESEARCH OBJECTIVE(S)

SPECIFIC RESEARCH OBJECTIVES:

✓ What are you going to do/measure, who/where will the measurement take place and what method will be used to take the measurement?

✓ Usually utilises words such as identify, determine, measure, compare, investigate, evaluate, assess, monitor etc.

✓ Always implement SMART specific objectives!!!!!!

✓ It often helps if you include the indicators or deliverables which could be used to ascertain the execution of each specific objective.

For example:

1. To determine and compare plasma levels of *P. falciparum* specific anti-GPI IgG, IgE and IgG3 antibodies in uncomplicated, cerebral and severe malaria study participants.

Indicators: Levels of *Pf* specific anti-GPI IgG/IgE and IgG3

measured.

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Details of Research Proposal

- **Goals and/or Objectives of Research**

- **Good**

- This is usually one paragraph telling the reviewer everything they need to know about this research proposal.
 - This provides the opportunity to gain the reviewers interest and excitement about this proposal.
 - It should contain the background on why this research is important, hypothesis, and objectives.
 - Should state the innovation of this proposal.
 - Finally it should in a clear statement demonstrate why this project is significant and what impact it will have.

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Details of Research Proposal

- **REJECT**

- No goal or objective statement at the start of the proposal.
 - Too technical and condensed will make it hard to read and understand.
 - Too short will not give the reviewer the needed information to understand the proposal.
 - Too long will make the reviewer skip to the background and makes the reviewer search for what is important.

Plan of Action, Project Design, or Methodology

- Usually, this is the section allotted the most points.
- It is often poorly written or missing altogether.
- 2:5 proposals are turned down because the methodology is unsound or poorly written.
- Devote a lot of time and attention to tidy this section before submission.
- Often the most detailed and lengthy section
- What specific activities will allow you to meet your objectives
- Task oriented, specific, detailed
- Essential that you demonstrate all the steps necessary to complete project with each flowing logically from the previous to the next.

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Methodology in a Research Proposal

- If methodology is new or unique explain why it is better than that previously used
- Specify research design and why it was chosen.
- Include descriptions of variables and their relationships.
- Define all important terms
- Provide descriptions of data sources including subjects, how they will be selected, the size of subject pool, and the size of the sample.
- Describe all procedures
- Include pilot instruments and data when possible
- Step-by-step work plan

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Key Personnel: Who Are these People, and Why Should we Give them our Money? I

- This is where you demonstrate that you are the right person to do this project.
- Do not simply say "See resume."
- Convince the funding agency that you are capable of accomplishing what you say you can accomplish
- Highlight the expertise of all key personnel

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Key Personnel: Who Are these People, and Why Should we Give them our Money? II

- Include experience you have had managing other projects
- Weak qualifications or inexperience in some cases can be compensated for by adding appropriate consultants. Include why you need consultants and how you chose them.
- If you don't identify a person, summarize the job description or qualifications required and how you will find that person
- Indicate responsibilities of all, and level of effort (man days/ weeks/months...).

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In Key Personnel Section Address...

- Publications in the area of the proposal or related areas.
- Evidence of relevant training, certification, or clearance.
- Unpublished papers, conference presentations in the area.

Institution's Qualifications/ Facilities

- Why should the award be made to your institution?
- The Grants or research Office will help you with the information in this section.
- Highlight institution's capabilities, relation of the project to mission.
- Facilities, support, library, computer, etc.

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ETHICAL CONSIDERATIONS

This section focuses on the special measures taken to ensure that harm will not be done to the study participants and that ethical principles will be rigorously respected throughout the study life span.

The following questions need to be addressed:

- 1. What is the scientific value of the study? Is the study contributing to the improvement of the health of the community for example or just an academic endeavour? Bad science is unethical!!!!**
- 2. How will you minimize risk of any procedure done on the patient? For example sterility of equipment used etc**
- 3. How will you maintain confidentiality of information obtained from the patient or study participant?**
- 4. Ensure that only those who grant informed consent are recruited into the study and are free to withdraw their participation at anytime without any consequences? etc**

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DATA MANAGEMENT & ANALYSIS

DATA MANAGEMENT

This section involves employing GCLP guidelines to record data into a source document (bench log book, CRFs etc), transcribe into data management software (Excel, OpenClinica, Epinfo, SPSS etc), ensure that the transcription is correct and keep a back up while ensuring confidentiality.

Describe clearly how you will implement the above activities involved in data management within GCLP guidelines.

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DATA MANAGEMENT & ANALYSIS

DATA ANALYSIS PLAN

Need to describe clearly the software that will be used in data analysis. Proceed to state the different statistical analysis that will be done on the measured variables.

Best way to proceed is to go objective by objective stating what statistical method(s) will be used to *DESCRIBE* or *COMPARE* variables. Once you can achieve this then you have a mastery of your objectives and can now plan your tables & figures already!!!! Always indicate your confidence interval and level of statistical significance (usually 5% or $P \leq 0.05$)

Consult your statistician at this stage of designing your study not after you have the data!!

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WORK PLAN

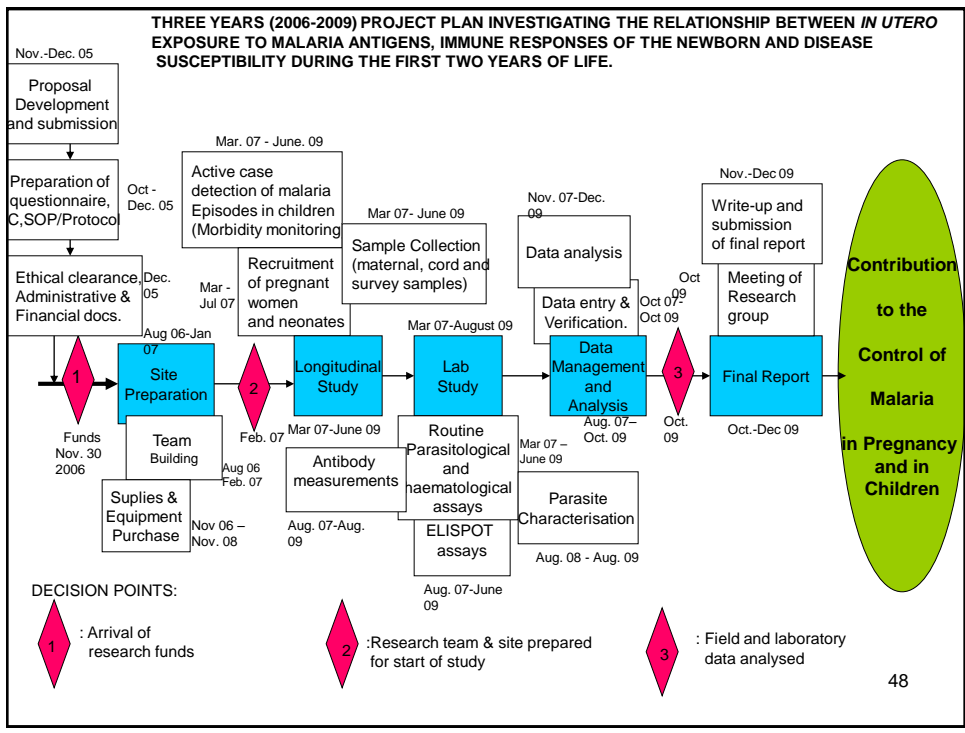
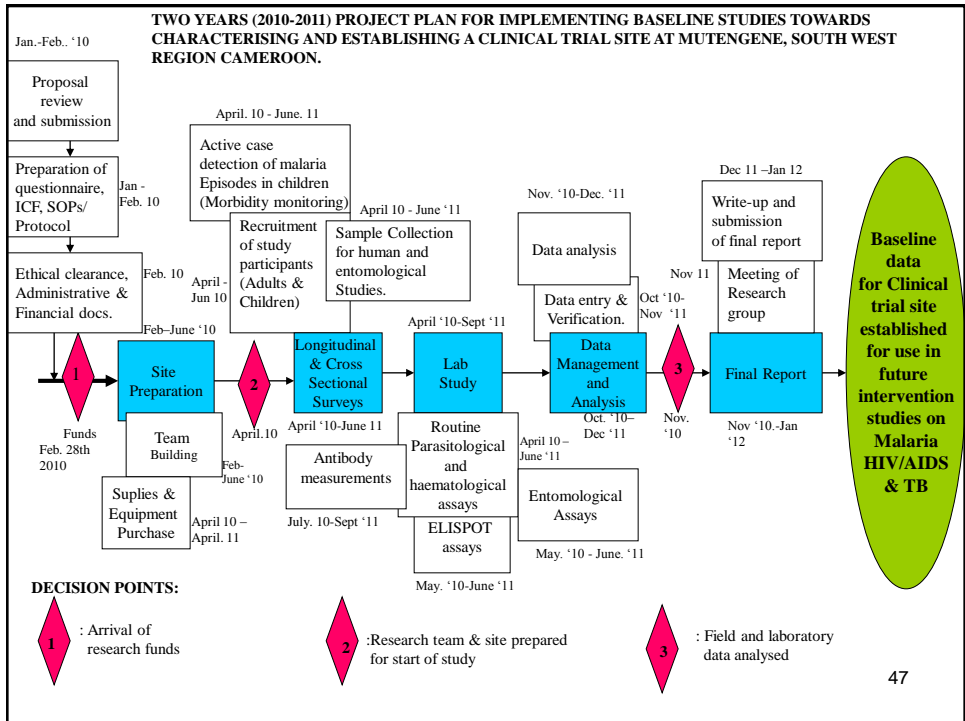
TIMELINES = Describes the time frame within which defined project tasks are executed.

MILESTONES = Refers to decision points in the project life span; used to evaluate level of achievement of project objectives or making decisions: go or no go criteria.

Falls under the broader concept of project management. The following procedures are important:

- Outline all the project activities and divide them into major and minor tasks. (Ethical clearance: draft letter, submit letter to IRB, obtain clearance, submit to funders)
- Assign timelines to each task (take into consideration tasks that are linked to or dependent on each other)
- Define decision points or milestones which may be used also as a measure of progress of project.
- Draw up project management plan using tables, Garntt or PERT charts.

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Work Plan and Timelines for 2016

Tasks	Jan - March 2016	April - June 2016	July - September 2016	October - December 2016
Project participants recruitment				
Whole blood assay, ELISAs for antibodies and cytokines				
Genotyping of samples for cytokine gene polymorphisms.				
Data collation and quality control				
Meeting of Research team and data analysis				
Writing up of final report and submission.				

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GARNTT CHART

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Name
1	Development of Protocols, SOPs and QC	8 weeks	Sat 11/01/05	Sat 11/26/05		
2	Finalisation of protocol/SOP/QC	0 days	Sat 11/26/05	Sat 11/26/05	1	
3	Ethical Clearance	15 days	Sat 11/26/05	Sat 12/17/05		
4	Institutional/National	2 weeks	Sat 11/26/05	Sat 12/1/05	1	
5	Submission of Ethical Clearance and adminis	1 week	Sat 12/1/05	Sat 12/17/05	4	
6	Transfer of funds for Year 1	0 days	Thu 11/30/05	Thu 11/30/05		
7	Transfer of funds for Year 2	0 days	Fri 11/30/07	Fri 11/30/07		
8	Transfer of funds for Year 3	0 days	Mon 12/1/08	Mon 12/1/08		
9	Site Preparation	424 days	Tue 8/1/06	Thu 3/13/08		
10	Team building	118 days	Tue 8/1/06	Wed 1/10/07		
11	Identify Clinical/Lab. Staff/M.Sc students	13 weeks	Tue 8/1/06	Tue 10/31/06		
12	Site training of field personnel and studer	2 weeks	Wed 12/13/06	Wed 12/27/06	11,6FS+2 wks	
13	Workshop on the standardization and opti	2 weeks	Wed 12/27/06	Wed 1/1/07	12	
14	Completion of team building	0 days	Wed 1/1/07	Wed 1/1/07	13	
15	Equipment purchase	60 days	Thu 11/30/06	Thu 2/22/07		
16	Centrifuge, weighing balance, micropipet	12 weeks	Thu 11/30/06	Thu 2/22/07	6	
17	Microscope, Freezers	12 weeks	Thu 11/30/06	Thu 2/22/07	6	
18	Thermal cycle/PCR	12 weeks	Thu 11/30/06	Thu 2/22/07	6	
19	Computer/printer	12 weeks	Thu 11/30/06	Thu 2/22/07	6	
20	1st year supplies purchase	75 days	Thu 11/30/06	Wed 3/14/07		
21	Consumables for 1s	13 weeks	Thu 11/30/06	Thu 3/1/07	6	Cameroon,Ghan
22	Immunoglobulin assay reagents	13 weeks	Thu 11/30/06	Thu 3/1/07	6	
23	ELISPOT and cytokine reagents	13 weeks	Thu 11/30/06	Thu 3/1/07	6	
24	Freezer and refrigerator	13 weeks	Thu 11/30/06	Thu 3/1/07	6	
25	Acquisition of Supplies,Equipment	0 days	Wed 3/14/07	Wed 3/14/07	24FS+2 wks	
26	2nd year supplies purchase	75 days	Fri 11/30/07	Thu 3/13/08		
27	Consumables	13 weeks	Fri 11/30/07	Fri 2/29/08	7	
28	Immunoglobulin assay reagents	13 weeks	Fri 11/30/07	Fri 2/29/08	7	
29	Cytokine reagents	13 weeks	Fri 11/30/07	Fri 2/29/08	7	
30	Molecular biology reagents	13 weeks	Fri 11/30/07	Fri 2/29/08	7	
31	Acquisition of Supplies,Equipment	0 days	Thu 3/13/08	Thu 3/13/08	30FS+2 wks	
32	Longitudinal Studies	600 days	Wed 3/28/07	Wed 7/15/09	20FS+2 wks	
33	Start of recruitment of mothers and neonates	0 days	Wed 3/28/07	Wed 3/28/07		
34	Recruitment of mothers	12 weeks	Wed 3/28/07	Wed 6/20/07		
35	Recruitment of neonates	24 weeks	Thu 4/1/07	Tue 9/25/07		
36	Active case detection of malaria in infants and	120 weeks	Wed 3/28/07	Wed 7/15/09		
37	Sample collection during follow-up	96 weeks	Wed 3/28/07	Wed 12/8/08		
38	End of longitudinal studies	0 days	Wed 7/15/09	Wed 7/15/09	36	
39	Laboratory study	620 days	Sun 4/1/07	Sun 8/1/09		
40	Routine analysis of field samples	118 weeks	Tue 4/10/07	Tue 7/14/08		
41	Sample fractionation and storage	119 weeks	Sun 4/1/07	Sun 7/12/08		
42	ELISPOT Assays	119 weeks	Sun 4/1/07	Sun 7/12/08		
43	Parasite characterisation	122 weeks	Sun 4/1/07	Sun 8/2/08		
44	Measurement of antibodies	124 weeks	Sun 4/1/07	Sun 8/16/08		
45	Data Management	545 days	Tue 10/30/07	Mon 11/30/09		
46	Data entry and verification for 1st year work	4 weeks	Tue 10/30/07	Tue 11/27/07		
47	Data analysis for 1st year	4 weeks	Tue 11/27/07	Tue 12/25/07	46	
48	Data entry for 2nd year	8 weeks	Tue 9/30/08	Tue 11/25/08		
49	Data analysis for 2nd year work	8 weeks	Tue 11/25/08	Tue 11/25/08	48	
50	Compilation of accumulated data	4 weeks	Tue 9/1/09	Tue 9/29/09		
51	Analysis of compiled data	8 weeks	Tue 9/29/09	Tue 11/24/09	50	
52	End of analysis of compiled data	0 days	Mon 11/30/09	Mon 11/30/09	51FS+1 wk	
53	Reporting	538 days	Fri 11/30/07	Wed 12/23/09		
54	1st progress report	4 weeks	Fri 11/30/07	Fri 12/28/07		
55	2nd progress report	6 weeks	Sun 11/30/08	Sun 1/11/09		
56	Final report	12 weeks	Tue 9/30/08	Tue 12/23/08		
57	Close of the project and transmission of report	0 days	Wed 12/23/09	Wed 12/23/09		

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Dissemination

- Process by which your project is reported to other professionals and the public.
- Important to the funding agency.
- Sometimes presented as the concluding thoughts of the project plan.
- How will you make the research results available to others?
- Will there be workshops, publications, or conferences?
- If you are producing materials how will they be advertised, marketed, and distributed?
- Websites

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Dissemination Plan Should Include:

- Which results will be reported?
- What audiences will be reached?
- How the results or products will be disseminated, e.g., computer networks, video tapes, conferences, professional journals, or publication of books, chapters, or monographs?

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Developing the Budget

- Be realistic, don't inflate
- Two parts to a budget
 - the budget form which breaks the budget into specific categories
 - a budget narrative that explains how you arrived at these figures and why you need the money

Includes Direct and Indirect Costs

Direct Cost

Costs that can be identified specifically with a particular sponsored project, an instructional activity, or any other institutional activity; or that can be directly assigned to such activities relatively easily with a high degree of accuracy.

Indirect or Facilities and Administrative (F&A) Costs

Costs that are incurred for common or joint objectives, and, therefore, cannot be identified readily and specifically with a particular sponsored project, an instructional activity, or any other institutional activity. Indirect Rate is negotiated with Cognizant Auditing Agency

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Budget Strategy

- Ask for what you need to do the work
- Justify requests that are significant or out of the ordinary
- Reviewers emphasize project quality over budget
- Follow sponsor and institutional guidelines and policies
- When in doubt, ask!
- Can be as simple as a one-page statement of projected expenses or quite complex on agency forms
- Can be overwhelming—seek the advice/assistance of financial experts.

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Beginning Your Budget

- ▶ Read the Guidelines!
- ▶ Consider the overall project budget before you begin to develop individual budgets for each year
- ▶ Consider agency **limits**:
 - items they will fund—items they will NOT fund
 - level they will fund—don't propose a budget over the level (it will most likely be rejected)
 - number of years they will fund
- ▶ Outline the budget in the format the agency requests
- ▶ Remember that the grant will not start for probably several months and submit costs accordingly

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Categories (Budget Lines) of a Budget

- Salaries (Personnel)
- Fringe Benefits
- Travel (local, International)
- Materials/Reagents & Supplies/Consumables
- Patient costs
- Equipment
- Training
- Contractual costs
- Overheads
- Others

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Budget Take Home Message

- **Good**
 - Give a detailed account of where you will be spending the money.
 - Approximately one third of the budget should go to supplies.
- **Reject**
 - Graduate students should not be used in budget support since it is an easy target for reduction due to alternative funding sources.
 - Do not justify spending all the budget on personnel or a sizeable chunk on miscellaneous.

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Appendix

- **What other additional information will be helpful to the reviewers?**
- CV
- **Letters of Support/Commitment (Grants Office will obtain any institutional letters)**
- **Sample questionnaires, syllabi**
- **Some sponsors either do not allow appendix material or do not require reviewers to read anything that appears in an appendix**
- **Don't waste trees**

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Letters of Support or Collaboration

- **Letters of Support**
 - We think it's a good idea
 - referred to in text, put in appendix
 - how does project fit with mission/goals of college
 - Presents type of support
- **Letters of Commitment**
 - Evidence of interest in project from participants
 - if project is funded they are ready with their contribution
 - what they will contribute
 - they will participate at the time that you need them

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Some Forms to be Completed

- **Assurances/Authority**
 - Title VI of Civil Right Act
 - Section 504 Rehab Act
 - Financial guidelines familiarity
 - Age Discrimination Act
 - Hatch Act
 - Fair Labor Standards Act
 - Conflict of Interest
 - Misconduct in Science
 - Access to records - FOIA
 - EPA Violating Facilities list
 - Flood Disaster Protection Act
 - National Historic Preservation Act
- **Certifications**
 - Authorized Organizational Representative
 - Lobbying
 - Debarment, Suspension and Other Responsibility Matters
 - Drug-Free Workplace

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Institutional Review Process

- It is always advisable for the research team members and other external experts to review the proposal before submission to the funding agency.
- When a proposal is submitted to a funding agency, a legal agreement is created between the agency and the submitting institution.
- **Consequently, institutional review sometimes maybe required to ensure that the proposed research activity is in line with the institution's mission and abilities.**

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Don't Skip Reviews – Style and Content

- Assign someone to review for grammar, punctuation and stylistic consistency
- Ask subject matter experts to review for content
- In tight proposal schedules, you will be tempted to skip these reviews – DON'T
- Grammatical and spelling errors are a turn-off
- Subject matter errors are absolute killers

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Check Your Answers Against Their Evaluation Criteria

- Evaluate their criteria
 - What else might they REALLY want
- Plan your answers with the evaluation criteria in mind – Write for a good score
- Evaluate every answer against the evaluation criteria as you write

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Submitting an Application

- **Most applications are submitted electronically.**
- **Others may require hard copies with signed submission letters and budget or work plan forms**
- **Others still may prefer fax submission etc**

- **No matter the route of submission, applications should be submitted on-time (days before deadline preferably).**

- **Usually it is advisable to make a last reading of the application package before submission**

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The Final Document

- Should be readable, neat and easy to handle
- Avoid fancy covers or a slick appearance
- Be sure sections are easily identifiable and table of contents is accurate
- Produce required number of copies
- Ensure the necessary signatures are made in blue ink

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Avoid automatic rejection

Examples include:

- Formatting issues (going over page, word, or line limits)
- Submitting a proposal over the budget ceiling
- Deadline issues (Online? Do time zones matter? Postmark/receipt?)
- Submitting a proposal outside agency interests

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Some Characteristics of Well-written, Fundable Proposals

- Innovation
- Relevance
- Demonstrated Competence/expertise of PI
- Feasibility study has been done
- Time Schedule
- Enthusiasm
- Simple Straightforward Language
- Complete and contemporary Literature Search

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Keys to Success



- **Innovation and Creativity is important**

- Looking for new solutions to old problems
- How do you create creativity?



- **Calling the Grant Officer is the most important element**

- 85% of all successful grant seekers have had contact with the program/grant officer of the funding agency

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Top 10 Reasons for an Unsuccessful Proposal

1. Project doesn't address agency priorities
2. Guidelines not followed
3. Not a compelling idea
4. Ideas not clearly presented
5. Methodology appears to be flawed
6. Overuse of jargon
7. Overly ambitious
8. Narrative and budget don't correspond
9. Sloppy presentation
10. The work has already been done

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14 Other Reasons Why Proposals Fail

- **Deadline not met**
- **Guidelines not followed**
- **Nothing intriguing**
- **Did not meet priorities**
- **Not complete**
- **Poor literature review**
- **Appeared beyond capacity of PI**
- **Methodology weak**
- **Unrealistic budget**
- **Cost greater than benefit**
- **Highly partisan**
- **Poorly written**
- **Mechanical defects**

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The Award

- Once you receive your award notice, the Grants Office will work with you to set up your account with the Finance/Accounting Service.
- Although the institution is legally responsible to the sponsor as the actual recipient of a grant or contract, the PI is held accountable for the proper fiscal management and conduct of the project.
- All expenditure must be approved by the Grants Office or Research Division of your institution.
- You are responsible for meeting all reporting deadlines for programmatic reports.

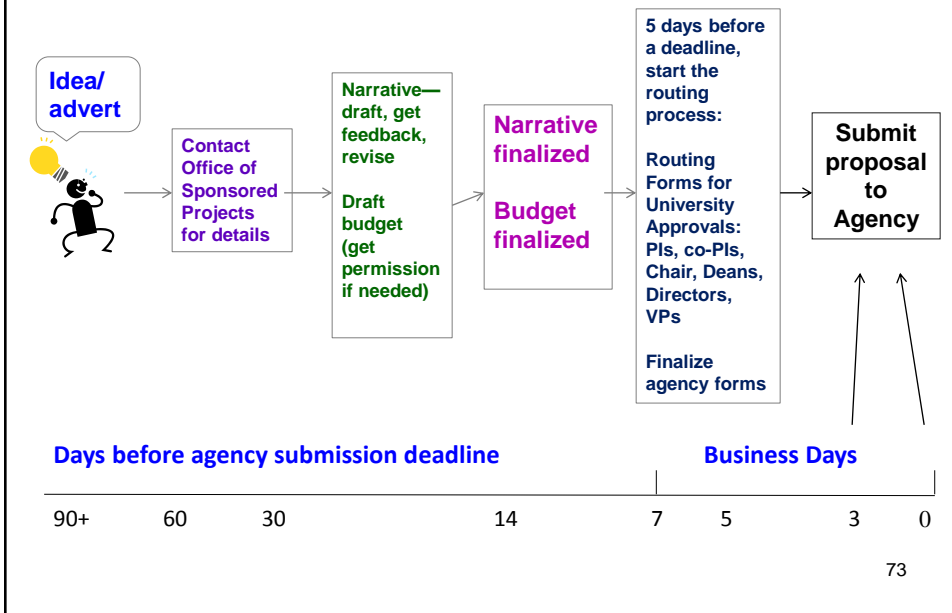
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If your proposal is rejected?

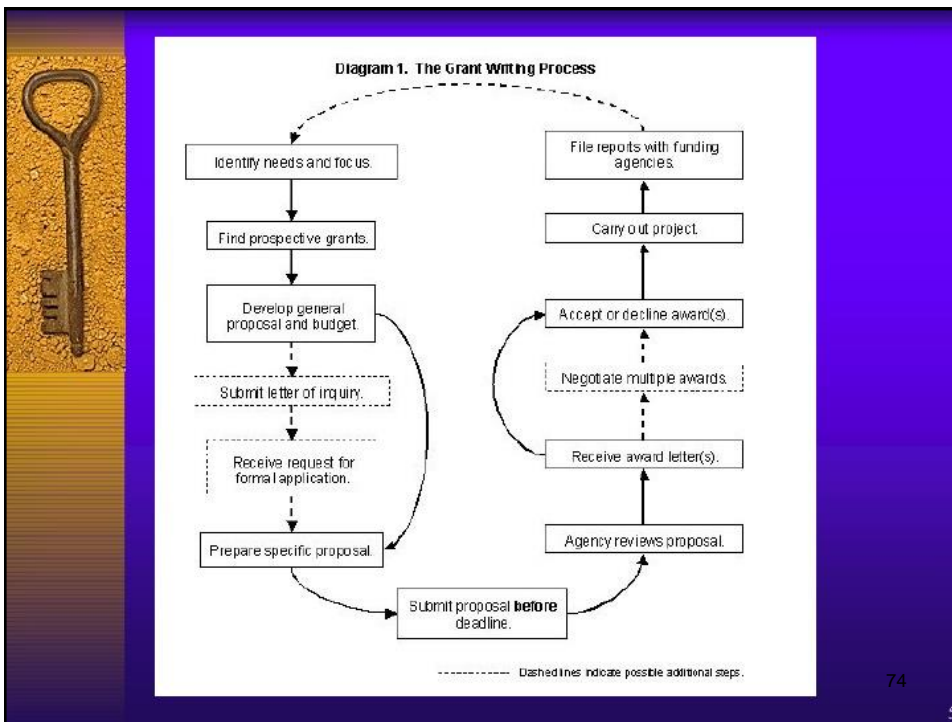
- Don't give up!
- Get reviewers report if possible and study the weak points
- Talk to agency contact for some clarifications
- Re-evaluate, revise and resubmit during next call or
- Look for other potential funders

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Life Cycle of a Grant Proposal



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Strategies for Novice Grant Writers

- Identify a research area
- Start a comprehensive literature review
- Develop a presentation for a professional meeting
- Write an article and submit to a smaller, local or state journal.
- Contact a publisher in your field and offer to review articles, monographs, books etc
- Get experience in conducting research
- Seek out funding for a small project first
- Collaborate with experienced researchers

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THANK YOU

MERCI!

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