

CRCHUM

Basic Science Grants

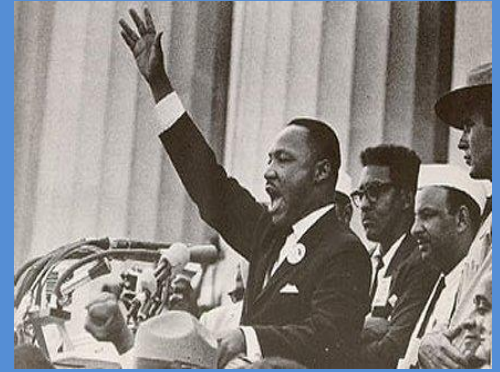
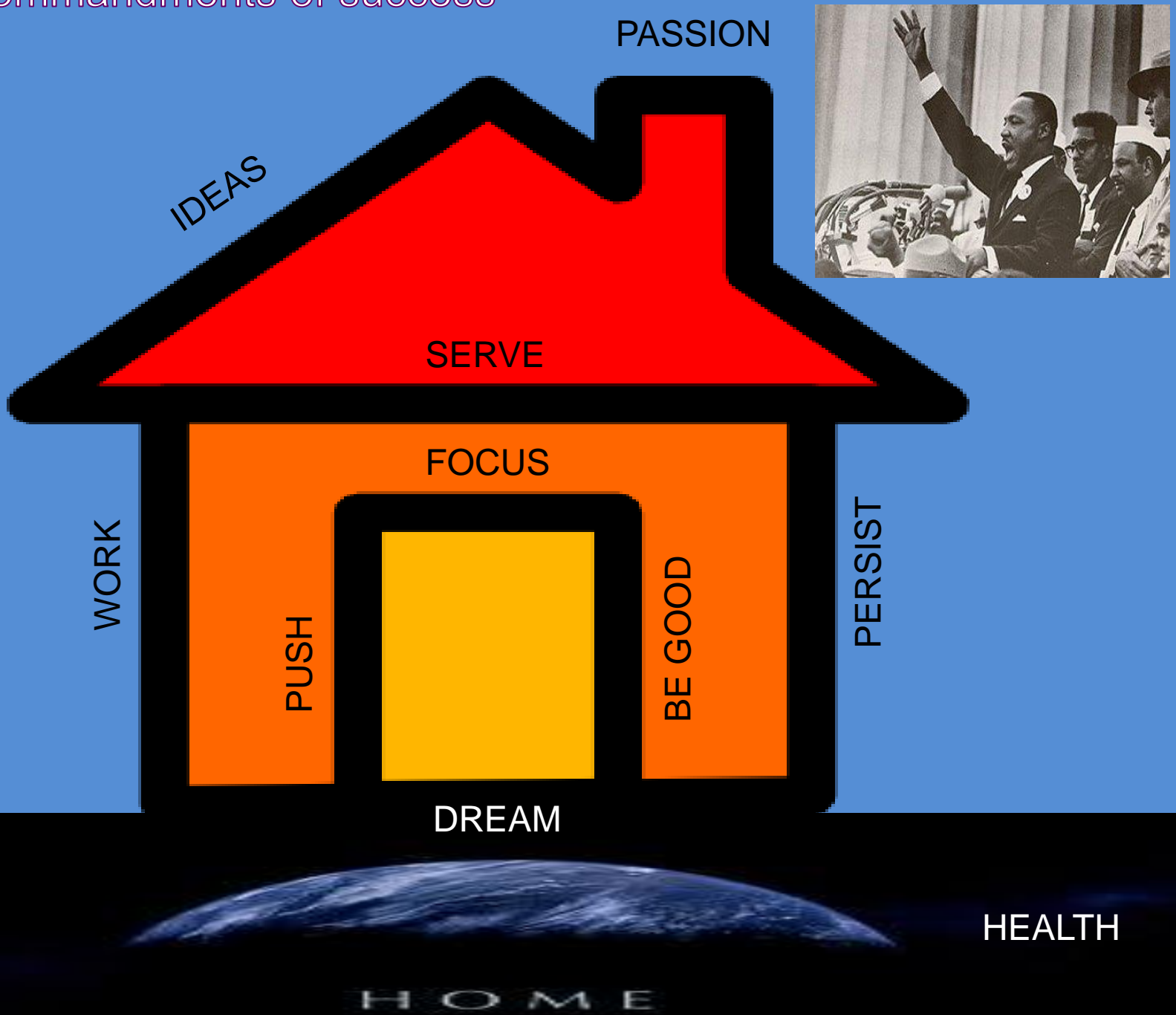
DE L'IDEE À L'ECRITURE

Vision, outline and « big picture »
of a research proposal

Grantsmanship workshop – May 2016

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The ten commandments of success



Have a Vision of your Application

You are the architect

- “See” the house before you start the construction
- Do not start writing before you have a solid overall plan

Know the Geography

- ”If you do not know precisely where you’ re going you will go nowhere”
- Be very precise with defined goals; no room to be vague

You are the Doctor

- One organ does not function independently of others
- The “little” and so important project is interesting to others outside your field only within a larger context

You are the Novelist

- Tell a lively, interesting and focused “story” with only about 3 chapters
- No room to write “War and Peace”

The journey to delivering the baby

Pre-conception...a very long process indeed

1. “New stuff comes from old stuff”. Have solid preliminary data and publication in the field of your application.
2. Read, know the literature very well, think, discuss with colleagues
3. Do not remain isolated
4. Systematically lay your ideas in a note book over years

The journey to delivering the baby

Take the nice decision to do it ...and be your own shrink!

1. Start much ahead of time (4 months for a first grant)
2. Prepare yourself mentally that it will be fun to think and write
3. Take a good care of you before, during ...and after the writing
4. Prevent emotional incompetence
5. Learn to cope with failure and rejection...and success will come

“Courage is going from failure to failure without losing enthusiasm” Winston Churchill

The journey to delivering the baby

Conception: short but good; the key information is in the egg

1. *“No clear question no clear answer”*. Precisely state and write down the few QUESTIONS that you are asking.
2. *Be an artist* and draw a couple of nice schemes that clearly explain the few hypotheses that you will test
3. *All stems from the summary*. Write and rewrite the one page ABSTRACT until it is ready. Should be very polished.
4. *Have a tag*. Write the title of your long term grant. Should be informative and not too precise such that you can keep it as years pass and the field evolves. Do not try to be sexy.
5. *The little show*. Present the title, the abstract and the few key figures and preliminary data to 2-4 *knowledgeable* colleagues within and outside your field.
6. *The constructive early critique*. Do not be afraid to get feedback, do not take it personally, discuss and troubleshoot accordingly

The journey to delivering the baby

Growing good... and run the show knowing the rules of the game

1. *You are the film director*. All figures and preliminary data ready
2. *Background section interesting*, relatively short with general schemes and understandable for the profane
3. *Make the life of the Referee as easy* as possible
4. *Each aim (about 3) should be strong*, complementary of each other and in the order of a developing story; ends with a perspective
5. *Each aim starts with a short rationale*, then experimental plan possibly with subsections, and a data interpretation and pitfall/alternative section
6. *Be an acrobat* because you should always fall back on your feet. Whatever you will observe should be interesting
7. *Be state of the art* in term of technology

The journey to delivering the baby

Ultrasound scanning

- Meet your colleague friends and the Experts again.
Show the whole complete grant at least 2-3 weeks before the deadline to 2-3 colleagues including at least one with have a track record of success with grant writing
- Administer the right vitamins and nutrients according to the diagnostics
- Deliver the baby at the due date and Enjoy!

The journey to delivering the baby

Growing good... more tips...

1. Ask important questions that are experimentally testable
“little question...little answer”
1. “overambitious; too many expts are proposed”
2. Do not write one very short or weak aim
3. Be as mechanistic as possible; “this aim is descriptive”
4. Have the right collaborators or co-PI
5. Be very convincing about your expertise
6. Be innovative; “bread and butter” or “logical but boring follow-up” science is a killer
7. The English must be fixed and the proposal should be very well written
8. Those who have a clear mind write well, easily and clearly

A very nice baby indeed!

....as summarized by the scientific officer

- “This is a clear and well written proposal with a strong rationale that will enhance our understanding of the biochemical basis of $\alpha\beta\chi\delta\epsilon\phi\gamma$. It addresses the important question of zzzzz and has the potential of opening a new avenue in the field of bath tubs. The PI is a young investigator who was extremely well trained in the laboratory of Dr Archimedeus where he/she published excellent manuscripts in the gazette of Syracuse. The application contains many innovative aspects, is based on very solid preliminary data, each aim is strong and the PI has the required expertise to perform the work. The technology to be used is state of the art, potential problems are discussed and convincing alternatives are proposed.”

Sub-criterion 1.2.1 Quality of the Idea (1/2 page) (25%)

Questions for reviewers to consider:

- a) *Is the project idea creative? (among the **best formulated ideas** in its field, stemming from new, incremental, **innovative**, and/or **high-risk** lines of inquiry; new or adapted research and **knowledge translation/commercialization** approaches/methodologies and opportunities **to apply research findings** nationally and internationally)*

- b) *Is the rationale of the project idea sound? (logical, evidence informed and valid?)*

- c) *Are the overall goals and objectives of the project well-defined? (with distinct **expected outputs that support advances in health-related knowledge, health research, health care, health systems, and/or health outcomes?**)*

Sub-criterion 1.2.2 Importance of the Idea (1 page) (25%)

Questions for reviewers to consider:

- a) *Are the anticipated project contributions likely to **advance health-related knowledge, health care, health systems** and/or health outcomes?*
- The context and needs (**issues and/or gaps**) of the project are clearly described.*
 - The anticipated contribution(s) are clearly described, and should be substantive and relevant in relation to the context of the issues or gaps.*
 - The anticipated contribution(s) are realistic, i.e., directly stemming from the project outputs, as opposed to marginally related.*

Criterion 2: Assessment of Feasibility (50%)

Sub-criterion 2.1: Approach (25%)

15,750 characters including spaces / approximately four and a half pages

What the applicants have been asked to provide:

Establish the quality of the project's design and plan; including how and when the project will be completed.

Questions for reviewers to consider:

- a) Are the methods appropriate to deliver the proposed output(s) and achieve the proposed contribution(s)? (applicants to CIHR are expected to integrate gender and sex considerations into their research design, where appropriate)*
- b) Are the timelines and related deliverables of the project realistic? (Key milestones and deliverables should be aligned with the objectives)*
- c) Does the proposal identify potential challenges and appropriate mitigation strategies?*

Investigator: Investigator Name

Criterion 2: Assessment of Feasibility (50%)

Sub-criterion 2.2: Expertise, Experience and Resources (25%)

3,500 characters including spaces / approximately one page

What the applicants have been asked to provide:

Establish the appropriateness of the complement of expertise, experience, and resources among the applicants (Nominated Principal Applicant, Principal Applicant(s) and Co-Applicant(s)), and their institutions/organizations, as it relates to the ability to collectively deliver on the objectives of the project.

Questions for reviewers to consider:

- a) Do the applicants bring the appropriate expertise and experience to lead and deliver on the proposed outputs, and to achieve the proposed contributions? (demonstrate the combined expertise and experience needed to execute the project)*
- b) Is there an appropriate level of engagement and/or commitment from the applicants?*
- c) Is the environment (academic institution and/or other organization) appropriate to enable the conduct and success of the project? (access to the appropriate infrastructure, facilities, support personnel, equipment, and/or supplies)*

Final tip: Persist through CRAP

C riticism

R ejection

A ssholes

P ressure