MIRA Trainee
Grant Writing
Workshop

Budget Development

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Welcome and Agenda

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• Understanding grant guidelines
• Developing budgets and budget justifications
• Incorporating budgets into proposals
• Matching funds and indirect costs
• Important considerations
• Reviewing common terms
Is This the Right Funding Opportunity for Me, and for My Project?

- Will you lead a successful project?
  - Is enough funding available to carry out your project?
  - Is the timing right?
  - Do any of the conditions of the grant prohibit you from conducting the best possible research project?

- Does accepting the grant exclude you from other opportunities?
  - Are you permitted to apply to other opportunities for the same project?
    - Example: The tri-agencies generally prohibit applying to multiple competitions for the same project until a review decision has been made. Review decisions can take upwards of six months
  - Some competitions prohibit applicants from applying if they hold certain types of other funding.
    - Example: The Banting Research Foundation Discovery award prohibits PIs from applying if they have more than $50,000 in external operating funds.
Reviewing Grant Guidelines

The first step towards developing a budget for any grant proposal is to understand the sponsor guidelines:

- **Maximum/minimum funding requests**
  - Pay attention to the applicable time periods
    - It is very common that the total amount of a multi-year grant will be paid out in equal installments. E.g. $100,000 per year for three years.
      - This could be a problem if you require $200,000 in the first year.
    - Take note of when the award will start
      - Will you have ethics approvals in place, staff hired, lab open, equipment purchased?

- **Eligible Expenses**
  - Common eligible expenses: project materials (e.g. reagents), staff salaries, computers, participant honorariums, service contracts (e.g. video production/website development), publication expenses.
  - Common ineligible expenses: equipment over $10,000, overhead, PI salary, office furniture, office rental, conference travel or KT in excess of $2000, tuition or book expenses for trainees, alcohol for group meetings.
Example excerpts from the Kidney Foundation of Canada – Kidney Health Research Grant

Competition

3.9 Indirect Costs

The Kidney Foundation of Canada supports only the direct costs of research. The definition of indirect costs of research for the purposes of this policy is costs that cannot be directly associated with a particular research program or operating grant, including but not limited to costs associated with the operation and maintenance of facilities (from laboratories to libraries); the management of the research process (from grant management to commercialization); and regulation and safety compliance (including human ethics, animal care and environmental assessment).

These funds are allocated to assist in defraying the cost of research. This includes the purchase and maintenance of experimental animals, materials, supplies and equipment, and the payment of laboratory assistants. Salaries should conform to those of the institution in which the research is carried out and may include the employer's share of staff benefits for which such personnel may be eligible. Personnel employed under grants are employees of the institution concerned, not The Kidney Foundation.

Grant applications for equipment only will not be considered. Equipment requested as part of the grant application will be considered provided the total amount for equipment does not exceed $10,000 CAN. In such cases, a full and adequate justification for required equipment must be

• No overhead permitted

• Collective bargains should be respected

• Allowable expenses listed

• Equipment expenditure maximum is $10k
provided. All apparatus, materials or supplies purchased by the grantee for use with any research funded by The Kidney Foundation becomes the property of the institution concerned.

Graduate student or postdoctoral (non-MD) support may be requested as part of the grant. The Kidney Foundation reserves the right to fund the grant with or without support to the graduate students.

Research grants do not provide for salary support of the Nominated Principal Applicant, Principal Applicants and/or Co-Applicants and are not intended to cover the entire cost of the research for which they are provided, since space and certain basic facilities are prerequisites to an application for a grant.

3.19 Scientific, Methodological or Budgetary Overlap: Current Funding and Pending or Contemplated Grant Submissions

The Kidney Foundation wishes to encourage new and independent research projects directly related to all aspects of kidney function (i.e., physiology, biochemistry, etc.) and diseases of the kidney and urinary tract. Therefore, to avoid any question of duplicate funding (which will automatically disqualify an application), applicants seeking or already receiving monies from other agencies or who are submitting a renewal proposal to the KFOC should clearly and unambiguously indicate the uniqueness to The Kidney Foundation of their proposal with respect to both the science and the budget by completing the Funding Overlap Declaration section on ProposalCentral. Please note that the Foundation does not provide top up funds, and that projects can be evaluated only on the supplied project application. Changes made after the receipt of other funding will not be considered applicable for funding.

- Equipment will remain the property of McMaster
- Trainee support is permitted
- PI salary is ineligible (likely also excludes teaching buyout)

- Duplicate funding prohibited
Interpreting Budget Guidelines – Tips

- Prepare your budget justification with annotations – copy the applicable rules into each heading to remind yourself what is and is not permitted. Delete annotations before submission.

- Don’t be afraid to ask for clarification – reach out to your research office for support, or contact the sponsor directly.
  - Keep all emails!

- If an ineligible expense is important to your research project, and you have it covered from another source, indicate so in your budget justification.
## Budgets and Budget Justifications

- **Budgets**: Are typically spreadsheet documents that list your expenses, generally by year, and tallies expenses based on each budget “category” and total
  - Categories are generally outlined by the sponsor and may include: staff/personal, project materials/consumables, equipment, knowledge translation, participant expenses (honorariums, parking fees, etc.)

- **Budget justification**: Also known as a budget narrative, this is a written description of each item or category included in your budget.
  - Ensure that each section of your spreadsheet budget has a corresponding section in the budget justification.
  - It is always advisable to “help” your reviewer to read your proposal. If possible, list the sections in your budget justification in the same order as they are presented on the budget spreadsheet. Similarly, show your calculations in a way that is easy for reviewers to do a mental tally, like listing expenses in a table.

### Trainee Expenses

<table>
<thead>
<tr>
<th>Budget Item</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary: Two PhD students will be recruited at an expense of $25,000 each per year</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$150,000</td>
</tr>
<tr>
<td>Tuition assistance will be provided at an expense of $6,000 per PhD student per year</td>
<td>$12,000</td>
<td>$12,000</td>
<td>$12,000</td>
<td>$36,000</td>
</tr>
<tr>
<td>Category total</td>
<td>$62,000</td>
<td>$62,000</td>
<td>$62,000</td>
<td>$186,000</td>
</tr>
</tbody>
</table>
Budgets and Budget Justifications

- Establish your budget:
  - Plan your expenses: Walk through each step of your research project. Make a list of each step and what you will need to complete it.
  - Collect estimates for each item, including in-kind expenses if you plan to include them in your budget documentation.
  - Estimates may be collected from:
    - Procurement office
    - Referencing collective agreements
    - Retail stores
    - Consulting service estimates
    - Journal websites for open-access fees
    - Conversations with colleagues who have completed similar tasks – e.g. estimating lab consumables at $1500 per month per full time employee
    - Travel websites
<table>
<thead>
<tr>
<th>Expense Item</th>
<th>Need or provided</th>
<th>Details</th>
<th>Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poster advertisements</td>
<td>Need</td>
<td>50 colour copies from staples at $1/poster</td>
<td>$51</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Roll of tape - $1.00</td>
<td></td>
</tr>
<tr>
<td>Travel to location</td>
<td>Need</td>
<td>5 trips (50 km total) at $0.59</td>
<td>$29.50</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parking free</td>
<td></td>
</tr>
<tr>
<td>Interview room rental</td>
<td>Provided by high schools</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>Participant honorarium</td>
<td>Need</td>
<td>$25.00 per student, 100 students</td>
<td>$2,500</td>
</tr>
<tr>
<td>Audio recorder</td>
<td>Need</td>
<td>$89.00 quote from Best Buy</td>
<td>$89</td>
</tr>
<tr>
<td>Transcription service</td>
<td>Need</td>
<td>Research assistant to provide service, estimated 100 hours at $15.50 per hour plus 14% benefits as per collective agreement</td>
<td>$1,767</td>
</tr>
<tr>
<td>Data analysis software</td>
<td>Existing subscription already available to Beatrice</td>
<td>Nvivo software</td>
<td>In-kind value - $1249</td>
</tr>
<tr>
<td>Conference presentation – fees and travel</td>
<td>Need</td>
<td>Travel for Julie and Beatrice to travel to Toronto via Via Rail - $75 each + conference fees of $150 each</td>
<td>$450.00</td>
</tr>
<tr>
<td>Open-access publication expenses</td>
<td>Need</td>
<td>Approx. $3,000 for one publication</td>
<td>$3,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note: Sponsor caps publication expenses at $2500</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td>$7,886.50</td>
</tr>
</tbody>
</table>

Example:
Julie and Beatrice are conducting a study to learn about the first time high school students in Hamilton smoked a cigarette. They want to interview 100 students from two different high schools.
Budget Considerations and Tips

- Draft your budget in chronological order to ensure you haven’t missed any key expenses
- Have your preliminary budget reviewed by a trusted colleague and ask both what you might be missing, and if they agree with your estimates
- Identify any funding gaps (e.g. ineligible expenses, or expenses in excess of the grant value)
  - Use your budget documents to speak to the gaps. Especially if the expense is critical to project success, how will the expense be covered? Note in-kind contributions, or other funding sources, and include information as to whether the funding is secured.
- Pay attention to the guidelines. Sometimes, quotes may be requested for certain items, or items of a certain value.
  - Example – recently a copy of McMaster’s collective bargaining agreement was requested for a Wellcome Trust grant.
- Use your budget justification document to lay out your expenses. The more information you can provide, such as quotes, or references to set fees, the more organized your application will appear, and the more likely it is that reviewers will fund the full amount requested.
- A well-organized, thoughtful budget implies that your project plan is also well-organized and thoughtful!
Watch out for “hidden” expenses

- Taxes
- Cost of living/promotion increases for staff
- Fringe benefits for staffing costs
- Overtime fees for staff
- Policies related to procurement
- Travel delays, rebooking fees, etc.
- Inflation

- Gratuities for meals, travel, meetings
- IT maintenance
- Limits on institution-provided services
  - Example: Does the Zoom or Teams license/subscription have the features you need for a productive webinar or meetings?
Reasonable Expenditures

- Developing research budgets is a bit of an art and a science...
  - The cheapest proposal is not guaranteed to be funded
    - At best, you’ll be left scrambling to find additional funding
    - At worst, your proposal will be rejected because it isn’t feasible
- However, grants are often not funded at the full value of the grant request...
  - With this in mind, you should provide generous estimates for your expenses – e.g. if you obtain three quotes for a product, at the very least, include the middle quote.
  - But be careful that you don’t balloon your expenses, as it may leave a poor impression with the reviewers.
Weave your budget into your proposal

❑ Consider whether your budget is reasonable given the time periods associated with your funding
  o Note in your timeline when key expenditures may occur

❑ Budgets, which typically appear last in grant proposals, should not be a “surprise” ending!
  o Example – if your budget contains major expenditures, like access to ICES data, trainee salaries, translating guidelines, or video production for knowledge translation, mention these activities in your grant proposal

❑ Pay attention to the evaluation criteria. Does your budget support this criteria?
  o Example: Equity, diversity and inclusion is quickly becoming an important component of many grant opportunities. Are you investing in EDI training or support for your staff? Are you providing the resources necessary to recruit participants from underrepresented societal groups?
Indirect Costs (aka – overhead, facilities and administration, F&A)

- Most grants state a policy on whether they will cover indirect costs
  - Direct Costs: the costs that are directly connected with a specific research project, including salaries, wages and benefits of research personnel, materials and supplies, equipment, user fees, and travel expenses.
  - Indirect costs: the costs that are not directly connected with a specific project but with the research enterprise as a whole, including facilities and equipment use and maintenance; utilities; insurance; administration costs such as legal, procurement, payroll, ethics and research administration; libraries, computing facilities and support; central animal facilities; biohazard handling; and other professional services provided by the University.

- Most granting agencies specify a policy in relation to indirect costs. They might:
  - Allow indirect costs at a certain rate (e.g. 25%)
  - Allow indirect costs that can be justified as a line item
  - Disallow indirect costs

- Similarly, most institutions also have an indirect costs policy
  - Details the rate applied to certain types of sponsors
  - McMaster’s indirect cost policy

- While it is tempting to exclude indirect costs, because you might think it makes your grant more competitive, be aware that some institutions might “charge” you the permitted rate, and it will come out of your budget.
Matching Funds (aka cost-sharing, leveraged funds)

- Note that some grant opportunities require matching funds
- The proportion of the match varies by opportunity, but essentially what is being requested is that additional funding is provided by an additional sponsor. Matches might be:
  - “Soft” (optional, increases the competitiveness of the application, in-kind contributions)
  - “Hard” (not optional, cash, grants may not be accepted if a match isn’t provided)
- Matches are helpful to show that other people/organizations believe in the importance or credibility of your project
- Matches are also helpful in the event that there are certain expenses that your project requires, that are ineligible to be funded by the grant at hand.

In-kind contributions

- These are non-cash contributions that might include service, product, space, expertise
- Use market value for in-kind expense estimates if including in your budget documentation
- It isn’t necessary to list in-kind expenses when your competition likely has the same contributions
  - E.g. if only universities are permitted to apply for a grant, taking note of various ineligible overhead items (like access to HR or Research Finance) isn’t going to jump off the page to your reviewers.
Be Mindful of the Policies for the “Institution Paid”

- Most of the time, grants are not awarded to you, the PI, but rather the institution.
- As such, there are certain rules or policies that you may have to follow:
  - E.g. working with a research office to set up a research account
  - Following deadlines for submitting information for reporting
  - Applying for indirect costs
  - Securing ethics approval prior to accessing funds
  - Following rules about procurement
Funded Projects: Changing the Budget

- What happens if I’m not funded my full grant amount?
  - Scale back your project, find cheaper alternatives, secure more funding
  - Some sponsors will not need to see how revise your budget (CIHR), some will (PSI).

- What happens if I want to change my budget mid-project
  - Depends on grant conditions. You might have the ability to transfer all or a portion of your budget to different line items without sponsor approval, or you may need sponsor approval. E.g. PHAC allows you to move 15% of budget between line items without amending the grant agreement.

- What happens if I over-spend?
  - Your account will be frozen. You will need to work with your finance department to essentially establish a “loan” until your next payment arrives, or see if you can charge expenses to different projects.
Common Terms

- **Consumables**: A commodity that is intended to be used up. E.g. reagents
- **Capital Expenditures**: Funds spent to acquire, maintain or upgrade physical assets.
- **Depreciation/Use-Allowances**: How much value an asset has lost over a set period of time.
- **Equipment**: Any item (or interrelated collection of items comprising a system) of nonexpendable tangible property, having a useful life of more than 1 year and a cost of $2,000 or more, which is used wholly or in part for research.
  - Note that all three conditions must be met for an item to be considered equipment, i.e.:
    - nonexpendable tangible property; and,
    - useful life of more than 1 year; and,
    - a cost of $2,000 or more.
- **Project Materials**: General materials necessary to complete a project. Could be lab supplies, paper questionnaires, computer software To be considered **materials or supplies** an item must meet only one of the following conditions:
  - expendable tangible property; or,
  - useful life of 1 year or less; or,
  - a cost of less than $2,000, excluding the non reimbursable portion of taxes.
Common Terms

- **Staff expenses**: The cost of research staff, usually excluding the PIs salary. These expenses are usually expressed as a portion of a full time equivalent – e.g. 0.5 FTE. Note that you should provide an average for what the position earns, not necessarily the person.

- **Fringe Benefits**: Staff benefits that cover employment related expenses like health care, pension contributions, sick days etc. McMaster typically uses a rate of 30-35%.

- **Release time allowance**: Payment for time that isn’t otherwise being compensated. E.g. for a knowledge user to participate in research design activity, or for a professor to hire someone to teach courses they are assigned as part of their employment contract.

- **Personal gain**: a benefit or advantage to a particular person rather than to the grant-funded research/activities.

- **Consulting fees**: a fee for service provided by a third party (non-employee).

- **Incentives**: cash or in-kind items offered to participants to establish potential participant pools or to acknowledge their participation in the research/activity.

- **Honorariums**: monetary payments made on a one-time or non-routine basis to an individual as a “thank you” for a service for which fees are not traditionally required (i.e., for speeches, lectures, seminars, etc. by a guest lecturer/speaker).

- **In-Kind**: A service or product provided as opposed to offering cash payment.
Common Terms

- **Carry-over**: The amount of unused funding in a budget year that can be carried forward to be used in the next year. PHAC, for example, typically allows for a 15% carry-over.

- **Reporting**: Generally at the end of each budget year and the end of the grant, PIs must submit a report to sponsors detailing the work completed, expense incurred, commitments made, and main research findings.

- **Residual balance**: Refers to the funds remaining in a grant account after the payment of all outstanding eligible commitments and expenses incurred on or before the grant expiry date.

- **Procurement**: The action of obtaining something. Important for budget development because some institutions have policies that outline certain items that must be purchased through procurement offices.

- **Bridge grant**: When a sponsor offers a smaller sum of money than what was requested to get the project started, with the intention of providing full funding at a later date if the initial project stage is successful.

- **Open-access publication**: A publication that doesn’t charge users to access its content. Important as these publications can carry high fees (~5000), and may be a mandatory condition of funding.
Common Terms

- Knowledge translation: A dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge

- Modular versus line item (type of budget)
  - Modular is when you ask for a grant in increments (e.g. CIHR asks for categories to be rounded to the nearest $1000 dollars, the total to be rounded to the nearest $5000 dollars. NIH often asks for increments of $25 000 dollars.
  - Line items are when your ask is presented based on the actual dollar value of each item.