

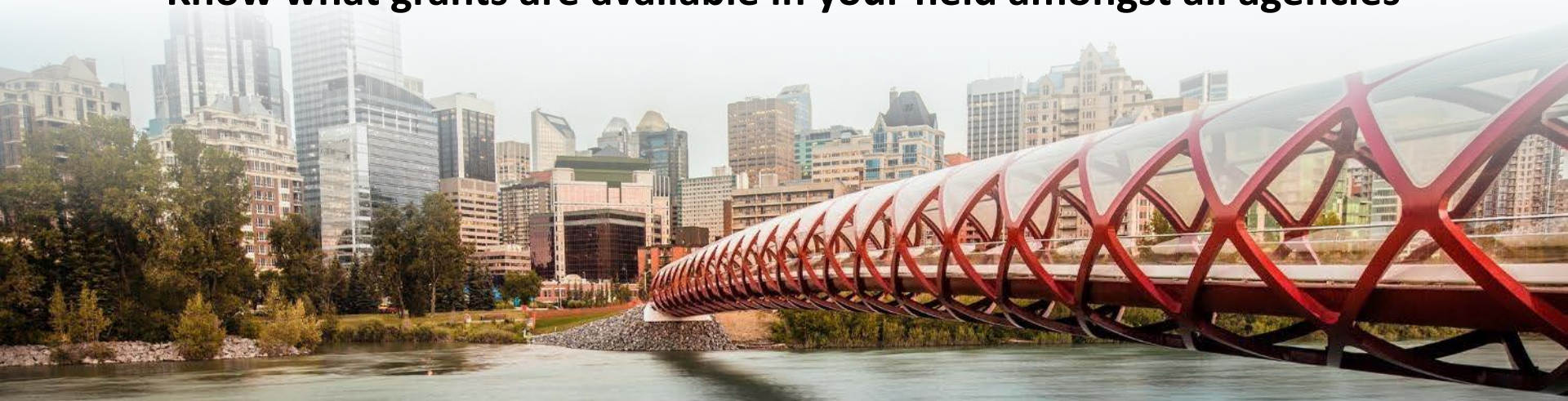
# Grant writing



# General considerations

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- **Always have a grant in progress and be working on it**
- **Start early enough that you can take advantage of internal peer review in your institution**
- **Use external peer review even if your institution doesn't have a formal process for this**
- **For clinical grants, pay attention to patient engaged research(ers) – include patients when appropriate**
- **Know what grants are available in your field amongst all agencies**





# Body of the Grant

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- **Consists of the 10-11 pages of the grant science**
- **Avoid trying to squeeze in extra stuff**
- **Avoid “cheating” by decreasing line spacing, margins, leaving no lines between any of the sections**
- **Be thorough yet succinct**
- **Write it such that a non-expert can follow your thought process**



# Body of the Grant

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- **Summary:** generally start with a one page summary that outlines clearly the objectives and hypothesis to be tested
- **Background:** goal is to explain what is known and what remains to be discovered in the area of the grant
- **Walk the reviewer through the literature with enough detail**
- **Do not suppress literature that might oppose your central hypothesis**





# Body of the Grant

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- **Background:** Do not use more than 5 pages for this section.
- **Preliminary data:** Mix in pertinent preliminary data from your group to support the grant.
- **Methodology:** I usually start by restating the objectives and hypotheses
- **If clinical study –** define the patient group to be studied with inclusion/exclusion



# Body of the Grant

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- **Protocol:** Describe the protocol to be followed with enough detail to convince the reviewer that you can do it.
- **Techniques:** These are the methodologies utilized to measure the end-points (ie PCR, cell culture, measurement of BP etc.)
- **End-points:** Clearly describe the end-points to be measured. These will come out of the protocol and techniques.

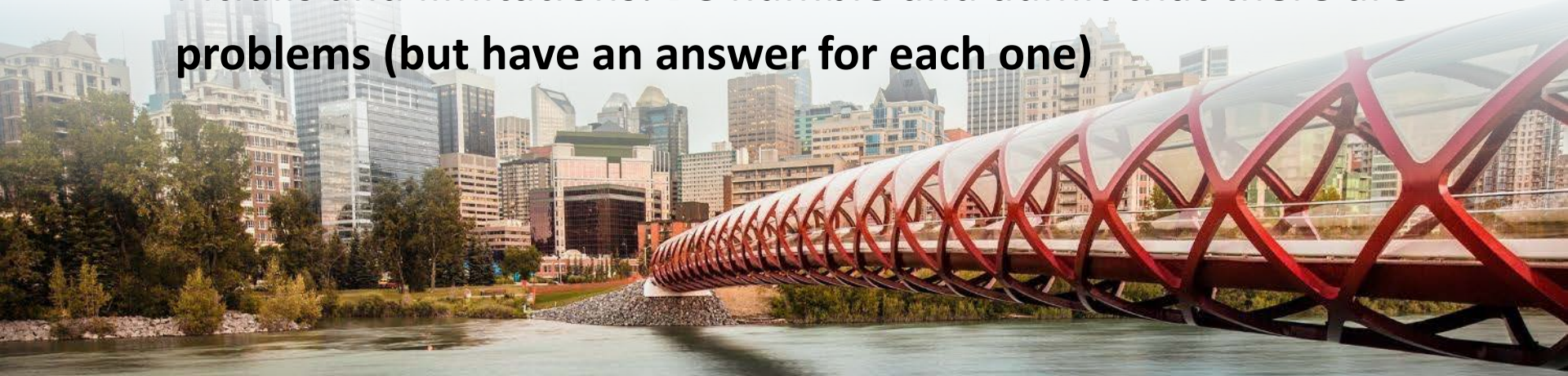




# Body of the Grant

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- **Analysis plan: Define the primary and secondary efficacy analyses.**
- **Statistics: This includes sample size calculation and type of statistics to use. Detail is good here, particularly if human study or complicated co-variates.**
- **Timelines**
- **Pitfalls and limitations: Be humble and admit that there are problems (but have an answer for each one)**



# Body of the Grant

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- **Summary and relevance: Why should we care and fund this research.**
- **Others: If clinical trial then in methods section detail on ethics, patient recruitment, freedom of information, regulatory issues (Health Canada, IRBs), data handling, role of sponsor. This can be summarized nicely in CONSORT checklist developed by journal editors.**





# Body of the Grant

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- **References: Lots are good. Up to date references important and quoting even conflicting references important as well.**
- **Appendix: Can usually add a few figures, tables but try not to add so many pages. Rules are different depending on the grant**



# Summary of the Grant

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- Usually edit the summary after the grant is complete
- Should act as stand alone explanation of the grant





# Lay summary

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- Important that this is done at grade 10 or less level
- Have your children read it



# Progress

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- **Generally one page but sometimes more**
- **Mandatory if renewal, however even if new application use it to introduce preliminary data**
- **Can attach a few figures to this.**





# Response to reviewers

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- **Very important if 2<sup>nd</sup> (or more) attempt at grant.**
- **Answer comments from previous reviewers in a polite, non-emotional tone.**
- **You are allowed to humbly disagree with reviewer if they are wrong.**
- **Annoys a reviewer who gets your grant a second time if none of the suggestions are even considered**



# Attachments

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- Letters of collaboration
- Letters of support (if salary award)
- Pertinent manuscripts





# Budget module

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- **As much detail as possible**
- **Justify everything (attachment of 2-4 pages)**
- **Quotes and salary scales**
- **Check the math**
- **Budget in for price increases**
- **Keep it in line with what agency is likely to give**



# CV module

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- **Keep Common CV module up to date**
- **Include current list of pubs**
- **Appropriate details of other grants**
- **Contributions**
- **Most significant work to date**





# Other considerations

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- Use extra pages to clearly list appendices (table of contents stuff)
- Use color graphs to make your point
- Start early
- Have preliminary data

