

Research Services Office

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Panel Discussion: Selecting a Committee and Preparing a Successful CIHR Open Operating Grant Program (OOGP) Application

The importance and nuances of committee selection and key elements of successful CIHR OOGP applications will be discussed. Inclusion of statistics, data management and health economics evaluations will be addressed; and differences among Pillars I-IV submissions will be discussed. SPEAKERS: Dr. Scott Klarenbach, Assistant Professor; Dr. Marek Michalak, Professor & Vice Dean Research; Dr. Rhonda Rosychuk, Associate Professor & Director Biostatistics Consulting Group; and Dr. Brian Rowe, Professor & Associate Dean Clinical Research.ical Research

Cost: Free

Instructor: See above

Date: 2010-07-20

Start Time: 10:30 (10:30 AM)

End Time: 11:55 (11:55 AM)

Location: 2F1.04 Walter Mackenzie
Health Science Center (Classroom D)

**-- Section has past --
-- Registration is no longer allowed!! --**

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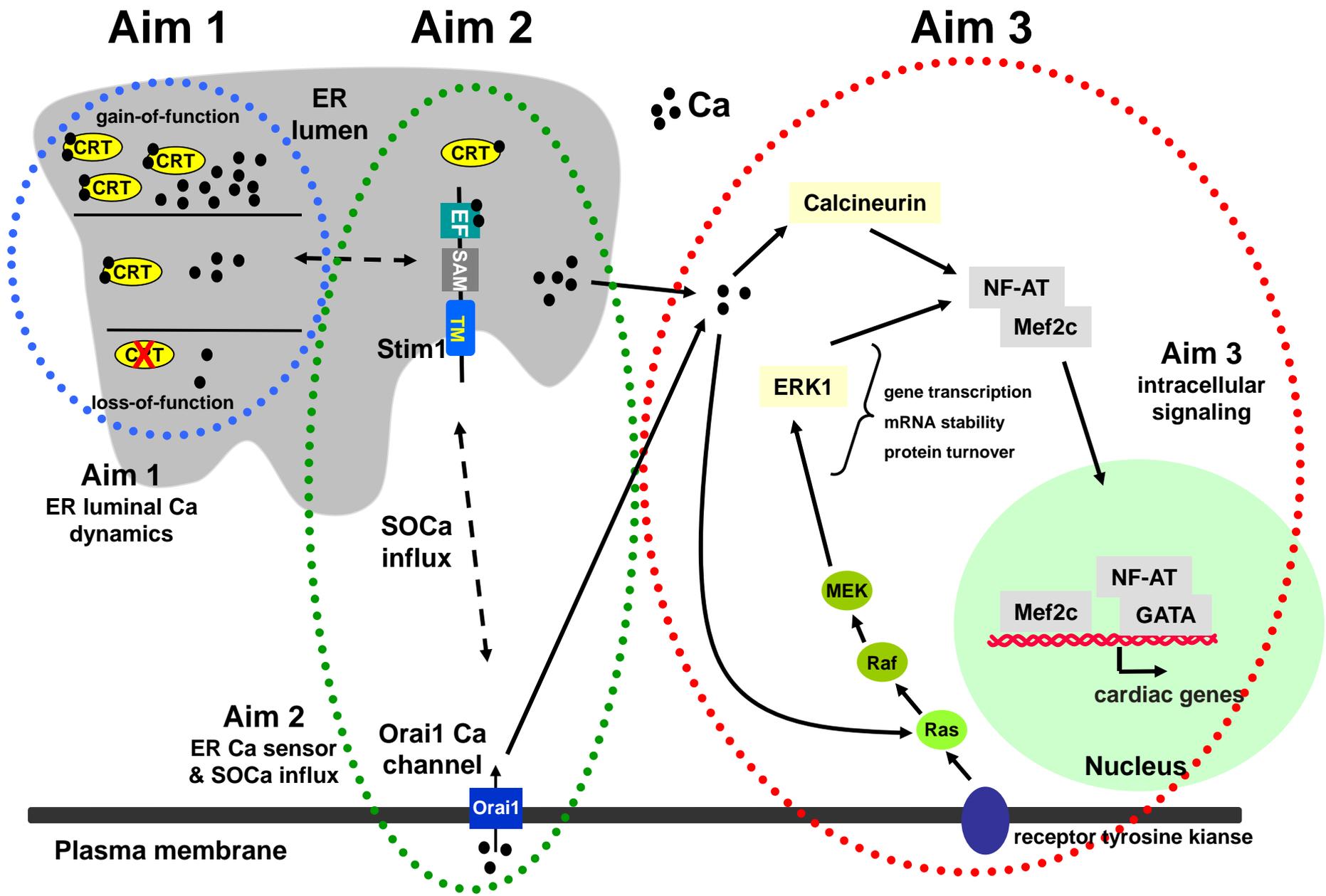


Fig. 12. A simplified model of selected ER Ca signaling and relevant intracellular signaling pathways. Three key Aims are schematically represented in the Figure. **Aim 1** deals with Ca dynamics of the ER lumen and CRT loss-of-function and gain-of-function; **Aim 2** focuses on ER Ca sensing and communicating this information to other cellular compartments; and **Aim 3** deals with activation of ER-sensitive signaling pathways with a major emphasis on Erk and CaN cascades. Impact of these 3 pathways on cardiogenesis of ES cells will be investigated.

Common(est) Application Errors – Pillars II-IV

Brian H. Rowe, MD, MSc, CCFP(EM)
Canada Research Chair in Emergency Medicine
Department of Emergency Medicine
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Delphi Technique

- I e-mailed some research colleagues and told them I had a “Top 5” question for them.
- Representative group of misfits, academics and people I owed money to.
- I e-mailed them the request.
- After 3 reminders, a few asked if I would pay them.
- Results: BOGSAT (I tried).

Some common themes

- Nobody mentioned the dollar value of the request.
- Some people suggested a *Western Canadian Bias* – they are bitter!
- Some researchers mentions “putting in time” in advance.
- Cautions by several about being *too* innovative.
- Don’t give up!

Theme 1: Question/Problem

- CIHR panels have difficulty covering all topics – important to write for the general reader.
- The issue or problem needs to be clearly stated (e.g., toe jam).
- Does it pass the “so what” test (relevance and importance)?
- Don’t be too ambitious!

Theme 2: Feasibility

- Pilot data is critical, and can take many forms:
 - SR for RCTs;
 - SRs for observational studies;
 - Admin data for HSR studies;
 - Pilot studies for prospective studies.
- HREB approval(s).
- Access to data (especially in AB).

Theme 3: Picture the reviewer

- Returning from another meeting;
- Economy class, Air Canada (upgrade certificate failed...again);
- Plastic cup of wine or can of beer, a few corn chips;
- Conclusion: hungry and exhausted.
- Note to self: don’t make him/her mad.

Theme 3: Face Validity

- Follow the instructions - please.
- Proof reading/editing – *spelking and grammar mistakes imply slopness.*
- Including figures and tables is important as is the spacing.
- Response to reviewers: be succinct and don't assume the same reviewers.

Theme 4: Team

- Single investigator studies never seem to be winners (at least in applied research settings).
- Increasing focus on the “teams” in many CIHR grants.
- Choose expertise carefully including: data management (EPICORE, WCHRI), statistician (RJR), HE (SK).
- KT – knowledge users/decision-makers important if requested.

Theme 5: Methods

- Statistics:
 - Statistician;
 - Sample size calculations;
 - Outcomes: validity, reliability, MCID;
 - Analytic approach.
- Health Economic Evaluation:
 - Health Economist – to include or not include, that is Scott's question;
 - Comprehensive description of assumptions and analytic approach.

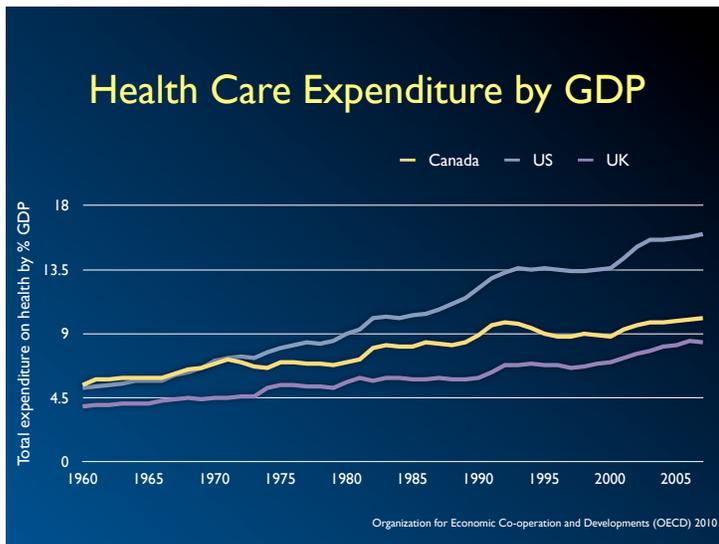
Questions for Marek?

Remember to say **YES** when CIHR calls on you!



Tips for Inclusion and Most Common Errors with Health Economic Evaluations

Scott Klarenbach, MD, MSc



Health Economics

Introduction

- Health - commonly measured by quality adjusted life years (QALYs)
 - quality and quantity of life
- Resource use - LOS, visits, \$
 - payor: hospitalization, outpatient visits, physician fees, medications etc.
 - patient borne costs (out-of-pocket)
 - societal: + absenteeism, unemployment

Health Economics

- Reality of finite health care resources (dollars, labour, etc.)
- Goal of health care payor: maximize health of population given finite resources
- Increasing emphasis on policy relevant research, and return on research investment

CIHR Themes

- Biomedical Research
- Clinical Research
- Health Services / Systems
 - *improving the efficiency and effectiveness of health professionals and the health care system, through changes to practice and policy...access to health care, the quality and cost of health care, and, ultimately, Canadians' health and well-being*
- Social, cultural, environmental, population health

Health Economics

Economic evaluation

- comparison of 2 or more strategies
 - bariatric sx vs. medical therapy for severe obesity
- considers all economic and health consequences to provide cost/QALY (or other measure of effectiveness)
 - data demand high
 - health benefits & harms
 - comprehensive costs
 - may be uncertainty in many parameters
- frequently requires decision models / decision analysis and conduct of sensitivity analysis

Health Economics

Resource utilization analyses

- range from simplistic to complex
 - hospitalization / LOS to total health care costs attributable to a disease state (burden of illness)
 - Costing: 3 steps for comprehensive costing - identification, quantification, and valuation of resources used
 - complexity of methodology depends on approach used and question asked
 - different hospitalization rate / LOS
 - attributable cost of disease state using total costs and regression analyses

Suggestions

At a minimum, think about and acknowledge health economic issues (health & resources) that are relevant to your proposal / aims

- make a compelling case for your proposal
- relevance: health and economic importance of issue, policy relevance
- identify outcomes / aims that you may want to incorporate into your current grant (QOL, resource use)
- identify outcomes that can be used in 'future directions' - full economic evaluation

Caveat: keep it relevant!

Suggestions

If relevant, consider opportunities to measure resource utilization

- linkage to administrative data sources (regional data capture, AHW) facilitating comprehensive resource utilization / costing
- Direct measurement

Health Economics

QALYs

- quantity / quality of life
- numerous instruments to measure HRQOL
 - generic (SF-36)
 - disease specific (FACT-An, KDQOL)
 - preference based: EQ-5D, HUI, 15D
 - allows determination of utility-based score that can be used in economic evaluation (cost-utility)

Suggestions

If your proposal involves measurement of quality of life (generic, disease specific), consider adding a utility-based quality of life measurement

- relatively easy and inexpensive to include if already assessing patient HRQOL
- allows use in future economic evaluations (baseline or change in utility based HRQOL)

Suggestions

If you identify relevant health economic issues but choose not to include these outcomes for whatever reason, justify.

- CIHR RCT

Health Economics

CIHR does not require that health economic measures be included as outcomes in all its trials. However, it does require that a clear and informed justification of why these measures are to be either included or excluded.

Quality of Life

CIHR does not require that quality of life measures be included as outcomes in all its trials. However, it does require that a clear and informed justification of why these measures are to be either included or excluded.

Suggestions

Aims / hypotheses / methods / analyses need to be completely and comprehensively described

- Simple descriptives / comparisons
 - HRQOL, hospitalization
- Comprehensive resource utilization
 - requires description of identification, measurement, and valuation of all resources
 - description of all data sources
- methods: capture of relevant outcomes
- analysis & stats: dealing with specific issues (skewed data, back transformation, power considerations)

Suggestions

What about a complete economic evaluation?

- when considering alternate therapies / tests / health policy
- significant impact on health or health care resource utilization
- trade off
 - cost / health benefit
 - short term / long term
- when 'decision' is complex and answer is not clear
- decision models: frequently required to ensure comprehensive consideration of all important factors
 - time frame, surrogate vs. final endpoints, data not from single source
 - RCT

Suggestions

What about a complete economic evaluation?

- utilizes specific non-overlapping methodologies
- will be reviewed by expert in health economics

Suggestions

Leverage existing expertise

- If you want to include outcomes relevant to economic evaluation but are unsure of approach, utilize existing expertise
 - extent of use of health economics outcomes
 - approach to capturing outcomes so they can be used in the future
 - ± more comprehensive costing analysis / economic evaluation

Tips for Inclusion and Most Common Errors with Statistical Analysis in Applications

July 2010

Rhonda J. Rosychuk, Ph.D., P.Stat.
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Most Common Errors

- Sample size justification inadequate/incorrect
- Statistical analysis plan inadequate/incorrect
- Unanswerable or poorly stated hypotheses and/or objectives
- Insufficient detail on key methodological or design aspects
- Hypotheses/objectives, sample size, analysis plan do not agree
- Lack of a team member or service to undertake proper design and analyses

Tips

- Don't commit the common errors
- Statistics Guide for Research Grant Applicants
 - ▣ <http://www-users.york.ac.uk/~mb55/guide/guide.htm#top>
- Writing Successful Research Proposals for Medical Science
 - ▣ http://journals.lww.com/anesthesiology/Fulltext/1998/06000/Writing_Successful_Research_Proposals_for_Medical.31.aspx
