



Oregon Health & Science  
University Foundation

# Foundation Funding: Writing a Letter of Intent

May 13, 2010

# OHSU & Doernbecher Children's Hospital Foundation

- Exist to build private philanthropic support
- Manage gifts responsibly in accordance with donor's wishes
- Raise \$\$ from individuals, companies, foundations and organizations
- Work collaboratively
  - RFDS
  - RGC
  - SPA



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# Funding Portal

<http://www.ohsu.edu/xd/research/administration/research-funding-development/>

- Funding Portal
- Foundation Funding



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# Foundation Relations

- Assist faculty and staff with applications
- Identify, cultivate, solicit and steward private foundations
  - Research
  - Program
  - Capital
- Promote and advance university goals and priorities



# OHSU Foundation Development Officers

- Support key initiatives in assigned areas
- Provide resources for prospect research
- Meet with department chairs
- Engage faculty in donor visits
- Facilitate clearance to individuals and private foundations



# Foundation Funding

- Prefer others to partner on funding an initiative
- Generally do not pay indirect costs
- Interested in the impact and tangible results
- Fund their own priorities
- Relationships are important



# Essential Elements of a Letter of Intent

- Introduction
- Needs statement
- Goals and objectives
- Project description
- Evaluation and sustainability
- Budget



# Success: Gerber Foundation

**Rae Rosenberg**

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**To:** Perrie O'tierney; rhuanl@ohsu.edu  
**Subject:** Gerber Foundation concept paper

**From:** Obits, Cathy [mailto:CObits@ncresa.org]  
**Sent:** Tue 6/16/2009 3:42 AM

Dear Dr. O'Tierney

Congratulations! The Board of Trustees has accepted your concept paper and looks forward to reviewing your full proposal. A formal letter will be sent shortly. Guidelines for the full proposal can also be found on the website. Proposals are due by August 17.

Catherine A. Obits  
Program Manager  
The Gerber Foundation  
231.924.3175  
Cell: 231.225.8377

# Gerber Foundation

- <http://www.gerberfoundation.org>
- Apply for a Research Grant
  - How to Apply
  - Guidelines
  - Frequently Asked Questions
- O'Tierney Letter



# Keys to Success

- Ensure clear match with funding interests
- Follow application instructions
- Answer all required questions
- Appeal to the reviewing audience
- Clearly present research and objectives



# Common Pitfalls

- Project doesn't match funding interests
- Weak hypotheses and objectives
- Project scope too large for timeline and budget
- Project need is unclear, not compelling
- Project is not unique



# Funding Opportunity – Gates Foundation Grand Challenges Exploration

*\$100,000, 12-month period*

*Deadline: May 19, 2010 at 12:00 PST*

[www.grandchallenges.org](http://www.grandchallenges.org)

## Consideration Criteria:

- Addresses topics for Round 5 [Topics Overview](#)
- Idea offers a creative approach to the problem; varies from current or conventional approaches; new and daring proposals
- Clear specific objective(s) to be accomplished
- Personal information is **NOT** included in the 2 page proposal
- Complete application - applications that do not contain a coherent idea, design or description of the work to be performed will not be considered for funding



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# Robert Wood Johnson Foundation Building Evidence to Prevent Childhood Obesity

***\$150,000, 18-month period***

***Deadline: September 1, 2010***

**<http://www.rwjf.org/applications/solicited/cfp.jsp?ID=20922>**

## Consideration Criteria:

- Demonstrates urgent and time-sensitive need for study
- Must need to be conducted during a short window of opportunity
- Outlines relevance to an immediate policy or environmental change effort
- Describes risks related to possible changes in the timing or nature of the natural experiment or environmental change or policy to be evaluated



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# Next Steps

- Determine eligibility and project fit
- Complete OHSU Foundation Clearance Request & Tracking Form
- Complete Proposed Project Questionnaire
- Prepare proposal/letter of intent
- Seek guidance
- Submit

Good Luck!



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## Elements of a Letter of Intent May 2010

Many foundations prefer that funding requests be submitted first in letter format instead of a full proposal. Others use preliminary letters of intent (LOI) to determine if they have an interest in a project before inviting a full proposal. In either instance, it is important to recognize that a well-written LOI is crucial to securing funding for your project.

The LOI should be brief, generally no more than three pages, and must be a succinct but thorough presentation of the need you have identified, the proposed project, and your qualifications for implementing it. If a foundation provides guidelines for an LOI, it is important to follow the requested format. A typical LOI contains the following elements:

### ***Introduction***

The introduction serves as the executive summary for the letter of intent and includes the name of your organization/department, the amount needed or requested, and a brief description of the project. This should not exceed one paragraph.

### ***Description of Organization/Qualifications***

The organization/department description should be concise and focus on the ability of your organization to meet the stated need. Provide a very brief history and description of your current programs while demonstrating a direct connection between what is currently being done and what you wish to accomplish with the requested funding.

### ***Statement of Need***

The statement of need is an essential element of the letter of intent and must convince the reader that there is an important need that can be met by your proposed project. The statement of need includes a description of the target population and geographical area, appropriate statistical data in abbreviated form and several concrete examples. The proposal will be stronger if the letter states that the funds for the project will provide a solution to an issue and not that the problem exists because of a lack of funds. Describe the issue in terms of the community/population to be served and how the grant funds will affect the community/population at the local, state, national or international level.

### ***Project Description/Methodology***

The project description/methodology should be appropriate to your statement of need and present a clear, logical and achievable solution to the stated need. Describe the project briefly, including major activities, names and titles of key project staff and your desired objectives. The goals and objectives of the project should be clear and measurable.

### ***Budget***

The budget section should include any sources of secured and planned funding, in-kind contributions as well as list of project expenses.

### ***Summary/Conclusion***

The final summary restates the intent of the project, affirms your readiness to answer further questions and thanks the potential funder for its consideration.



# OREGON HEALTH & SCIENCE UNIVERSITY

School of Medicine

Kent L. Thornburg, Ph.D.,  
M. Lowell Edwards Chair  
Director, Heart Research Center

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Portland, OR 97239-3098  
tel 503 494-2382  
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[thornbur@ohsu.edu](mailto:thornbur@ohsu.edu)

June 1, 2009

Catherine A. Obits, Program Manager  
The Gerber Foundation  
4747 W. 48<sup>th</sup> St., Suite 153  
Fremont, MI 49412-8119

Dear Sir or Madam:

Dr. Perrie O'Tierney is proposing to determine the relationship of maternal obesity to poor function of the endothelial cells that line the blood vessels in babies. Poor endothelial function is the primary culprit in heart disease and stroke.

Perrie O'Tierney is a postdoctoral fellow in the OHSU Heart Research Center, for which I serve as director. I am very enthusiastic about her research goals and her current proposal for The Gerber Foundation. Dr. O'Tierney is a trained molecular biologist and joined my laboratory in 2006 with the intention of undertaking clinical studies applied to the fetal origins of cardiovascular disease. She served as laboratory supervisor under my direction for the *Oregon Women's Study*, a small clinical study in Klamath Falls, Oregon. Dr. O'Tierney is now providing leadership for the data analysis portion of the study.

Babies born to obese mothers have highly elevated risks for ischemic heart disease as adults, but the link between obesity and disease risk is unknown. Dr. O'Tierney has discovered that offspring of obese women are deficient in omega-3 fatty acids due to alterations in placental fatty acid transport and metabolism. This is an enormous step forward.

Dr. O'Tierney's research goals fit well with the interests of The Gerber Foundation in their efforts to promote infant and child health through better nutrition and care. She plans to determine the role of the long-chain essential fatty acids in suppressing endothelial function in infants born to obese mothers. Twenty percent of all women who deliver in the U.S. are obese. Dr. David Barker's work has established that the nutrition received *in utero* and in early life determines the child's risk for chronic disease as an adult. This message can hardly be overemphasized. There is no doubt that Dr. O'Tierney has the skill and organization to carry out the studies she has proposed. I expect her to be an international leader in the field of maternal obesity and placental transport within the decade. She is a star in the making.

Sincerely,

A handwritten signature in black ink that reads "Kent L. Thornburg".

Kent Thornburg, PhD  
Professor and Associate Chief for Research  
Division of Cardiovascular Medicine  
Professor of Obstetrics & Gynecology

## Maternal obesity leads to endothelial dysfunction in the neonate: role of essential fatty acids

Principal Investigator: Perrie Faye O'Tierney, PhD

Length of Study: 1 year

Estimated Total Costs: \$20,000

Number of Subjects to be studied: 40

Age range of subjects: Term infants at birth (0-1 hour old) from healthy lean and obese women (18-40 years of age)

**Hypothesis and objectives:** One woman in five who gives birth in the US is obese (body mass index (BMI)  $>30 \text{ kg/m}^2$ ). Babies born to obese mothers more often require intensive care, are delivered preterm and have a higher likelihood of developing type II diabetes and cardiovascular disease. Neonatal omega-3 fatty acid levels (specifically docosahexanoate (DHA)) are negatively correlated to pre-pregnancy BMI, suggesting that maternal obesity leads to omega-3 essential fatty acid deficiency in the offspring. These fatty acids are critical to proper neurological and vascular development of the infant before birth and early in life. Adult hypertension has been linked to neonatal DHA deficiency in both animal and human studies. The anti-inflammatory and antioxidant properties of DHA and consequent influence on endothelial function and vascular reactivity underlie this omega-3's beneficial effects on cardiovascular health. Despite this known relationship, few studies have investigated the association between neonatal fatty acid profiles and vascular function at birth, which has important implications for an infant's immediate and future cardiovascular health. Additionally, the effect of maternal obesity on these parameters is unknown.

Overall Hypothesis: Offspring of obese women are at increased risk of cardiovascular disease because of altered fatty acid profiles that affect vascular development and function.

The Specific Aims of this proposal are as follows:

**1. To determine the effect of maternal obesity on neonatal endothelial function.**

Umbilical cord arterial and venous blood and umbilical vascular tissue will be collected at delivery from healthy, term lean and obese women. Markers of endothelial function (nitric oxide production, antioxidant capacity) and dysfunction (inflammatory cytokines, oxidants, endothelial permeability) will be assayed in umbilical cord blood and endothelial tissue.

*We hypothesize that markers of endothelial dysfunction are elevated in offspring of obese women.*

**2. To determine the association between neonatal lipid profiles and endothelial function in offspring of lean and obese women.**

Maternal and neonatal lipid profiles and fatty acid profiles will be measured in subjects recruited for Aim<sup>#1</sup>. *We hypothesize that maternal obesity and neonatal endothelial dysfunction is associated with lower omega-3 fatty acid levels and a higher omega-6/omega-3 fatty acid ratio in the term neonate.*

**Study Design:**

This is a cross-sectional study of 40 healthy term pregnancies at Oregon Health & Science University (OHSU). Lean (BMI 20-25  $\text{kg/m}^2$ ) and obese (BMI 30-40  $\text{kg/m}^2$ ) women meeting the inclusion criteria (18-40 years of age, informed consent signed, uncomplicated pregnancy) will be recruited at admission to OHSU labor and delivery.

Sample collection: At the time of delivery, a section of the umbilical cord will be clamped and a venous and arterial cord blood sample will be collected. The umbilical tissue will then be

sectioned for histological examination and the umbilical artery will be denuded for collection of endothelial cells. Maternal venous blood will also be collected at this time for fatty acid profiling. Plasma and cells will be stored at -80°C for subsequent analysis.

Primary outcomes:

1) *Endothelial function*: In isolated endothelial cells we will measure the nitric oxide synthase enzyme (eNOS) as a marker of nitric oxide production capability; total antioxidant capacity will be measured in umbilical cord blood. Low levels of these compounds are associated with endothelial dysfunction and cardiovascular disease risk.

2) *Endothelial dysfunction*: We will measure inflammatory compounds (tumor necrosis factor  $\alpha$ , interleukin (IL)1 $\beta$  and IL-6) and markers of oxidative stress (8-isoprostane) in arterial cord blood – high levels of these compounds are known to predispose subjects to cardiovascular disease through their effects on endothelial function. Endothelial permeability, (high levels indicating damage) will be assessed in short segments of cord using Evan's blue dye dilution.

3) *Lipid profiles*: We will measure maternal and cord blood (venous and arterial) lipid (high density lipoprotein (HDL), LDL, VLDL, triglycerides, lipoprotein-a), essential fatty acid profiles and markers of EFA deficiency (Mead acid and Osmond acid) to determine the degree to which maternal obesity predicts a pathological fetal/neonatal lipid profile. Cord venous fatty acid levels generally reflect the placental transfer of lipids, while cord arterial blood will reflect fetal lipid metabolism and tissue uptake.

These studies will be conducted to define the association between neonatal arterial and venous EFA levels, omega-6/-3 ratio, Mead acid or Osmond acid and compounds which may indicate cardiovascular stress.

**Potential Impact:**

Expected outcomes: We expect that infants with obese mothers have higher levels of markers of endothelial dysfunction in conjunction with lower values for endothelial function indicators, as compared to infants of lean mothers. We also expect to find that offspring of obese mothers have lower omega-3 fatty acid levels and higher omega-6/-3 ratios, with evidence of EFA deficiency (as indicated by high Mead Acid and Osmond Acid levels). Finally, we expect that markers of endothelial dysfunction are positively correlated to omega-6/-3 ratios and negatively correlated to omega-3 levels in all infants studied.

Potential to improve the health and nutrition of infants: The burgeoning obesity epidemic is yielding increasing numbers of babies who are faced with long term consequences that may be related to their abnormal lipid profiles at birth. Yet, the degree to which maternal obesity is associated with indices of neonatal nutrition and vascular function is unknown and is virtually unstudied. These studies are necessary to understand the specific neonatal nutritional deficiencies and risk factors associated with maternal obesity. Only with this knowledge will we be able to judiciously design and study nutritional interventions for mother and child with the potential to *prevent the progression of vascular dysfunction in the offspring, protecting them from risk of immediate and future cardiovascular disease.*

Years to implementation: The proposed study (recruitment and assays) will be completed in 1 year. The results will then be analyzed and disseminated at meetings and through publications in clinical journals within the following months. Following analysis of the results, we will consult with our larger team of nutritionists, clinicians and basic scientists in the OHSU Heart Research Center to design an interventional trial of dietary alterations during pregnancy for women recognized as most at risk, based on indicators identified in the current proposal. In total, the results of the proposed study and ones to follow have the potential to influence the health of mothers, their infants and future generations, within 2-5 years.

Primary Contact:

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