

### Women's Health Research Institute

### ANNUAL REPORT & A TIME OF TRANSITION

April 2010 - September 2011

# Contents

<b>VISION</b> Leading research: better health for all women	<b>MISSION</b> Creating new knowledge and evidence based solutions that inform and transform the health care of all women
VALUES	MANDATE
<ul> <li>To encourage excellence and innovative thinking in women-centred health research</li> </ul>	• To act as the research arm of BC Women's Hospital & Health Centre
<ul> <li>To be ethical and transparent in our actions and activities</li> </ul>	<ul> <li>To act as the face of women's health research for the Provincial Health Services Authority</li> </ul>
<ul> <li>To be equitable and inclusive in all we do</li> </ul>	<ul> <li>To support research activities designed to</li> </ul>
<ul> <li>To respect diversity and promote a sustainable</li> </ul>	improve the health and health care of women throughout

environment for women's health research

British Columbia

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04-05 An Introductory Message from Dr. Money and Eileen B. Stewart

# THANK YOU.



At this time of change and new beginnings we are pleased to present this Women's Health Research Institute (WHRI) report. This report completes our time as a new and novel research institute established as a not for profit society, hosted by B.C. Women's Hospital and the PHSA. Since our launch in 2005, we are pleased to report we have been extraordinarily successful in putting broad, translational women's health research on the map. We have established a dry lab site at B.C. Women's, and have collaborated extensively with investigators throughout B.C., nationally, and internationally. We have succeeded in attracting 47 full members, 42 associate members, and 18 affiliate members. We have had substantial grant success which has increased yearly, during tight fiscal times. And, most importantly, new knowledge generated by our investigators has already been translated into improved care.

All of this has been achieved through the hard work of a small but dedicated and committed staff. The support of our Foundation and other key supporters, particularly the Ismaili Community, has been invaluable. Importantly, this has been led and guided by a highly effective Board of Directors.

We are very excited to enter our new phase as the Women's Health Research Institute for B.C. Women's Hospital, as a fully integrated unit in the hospital, but will greatly miss our ever supportive Board of Directors who were with us over our years as a not for profit society.

Thank you to all that brought the WHRI into existence; we look forward to even greater success in this new chapter for women's health research in B.C.

Yours sincerely,



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Deborah Money Vice President, Research BC Women's Hospital & Health Centre



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Eileen Stewart WHRI Board Chair



Research focused on patients and other users of health services is the cornerstone of evidence-based health care, a modern construct of clinical care largely pioneered in Canada\*. Clinical research, particularly in the hospital setting, allows investigators to make rigorous comparisons among new and current diagnostic, therapeutic, and preventative approaches, ultimately providing evidence as to "best practice" to better inform evidence-based medicine.

More than any other branch of research, research in the clinical setting is where the most immediate and profound effects on human health and well-being are realized. On a global scale, the impact of clinical research has been integral to the development of life-saving vaccines, the discovery of effective disease treatments, and the evolution of health care from its most basic rudiments to the complex system that exists today.

The WHRI has enhanced the research environment and infrastructure at BC Women's Hospital & Health Centre through the provision of mentorship, methodology consultation, assistance with ethics applications, study management, research coordination, grants facilitation and the award of catalyst funding. On the next page are examples of just some of the research projects which have been facilitated by the WHRI in each of the identified areas of BC Women's Hospital in the past year.

\* Evidence-Based Medicine Working Group. Evidence-Based Medicine: A New Approach to Teaching the Practice of Medicine. JAMA. 1992; 268(17): 2420-2425.

### **WHRI Clinical Research Facilitation**

### **WHRI Clinical Research Facilitation**

#### Birthing / Acute Perinatal / Postpartum Program (APP)

Defining the role of vaginal microbial ecology in preterm birth
PI: D. Money Funding: March of Dimes Prematurity Research
The Childbearing Health and Related Service Needs of Newcomers to Canada
PI: B. Palmer Funding: CIHR
APP: Anaesthesia consultation
TAPAS – abdominal tap block as an alternate form of pain relief post c-section for morphine sensitive individuals
PI: R. Preston Funding: Supported by WHRI Ismaili funds
SWEET – measures CSF glucose in patients with planned c-sections receiving spinal anaesthesia
PI: J. Douglas Funding: Supported by WHRI Ismaili funds
"How fast are we?" - General anaesthesia vs. spinal anaesthesia for emergent c-section deliveries: a simulation based study
PI: V. Gunka
Anaesthesia Research Group
PI: R. Preston Funding: WHRI Capacity Building Award

#### **CARE** Program

#### Better Contraceptive Choices for Marginalized Women: Immediate vs. Interval Insertion of Intrauterine Contraception after Second Trimester Abortion PI: W. Norman Funding: CIHR, Bayer, WHRI Team Infrastructure grant

Does Social Support impact a woman's experience of and recovery from a pregnancy termination? PI: Z. Hodgson Funding: Vancouver Foundation A Review of Physician Anaesthesia Prescribing Practices in an Abortion Clinic in British Columbia PI: B. Fitzsimmons Funding: WHRI-supported summer student project

#### BCWH Patient & Family Education Program

Does group prenatal care improve outcomes for mothers and newborns? PI: R. Hall Funding: WHRI Sue Harris Research Award

#### **Best Birth Clinic**

The impact of doula support during labour for women in the South Community Birth Program: What maternity care providers and doulas believe. PI: P. Janssen, Funding: Supported in kind by the WHRI

#### Women's Health Centre (WHC)

WHC: Asian Women's Health Clinic
Mammography Uptake Study in Asian Canadians
PI: J. Kwong, Funding: BC Cancer Agency
WHC: Heart Program for Women
After Gestational Diabetes: A Type II Diabetes
Prevention program
PI: N. Prodan-Bhalla, R. Sanghera
WHC: Osteoporosis Program
Phosphorus Intakes and Calcium Supplementation
Practices of Elderly Chinese Women Eating a
Traditional Diet
PI: D. Reid, Funding: Nutritional services at
C&W
WHC: Early Pregnancy Assessment Clinic
A Canadian urban early pregnancy assessment clinic:
A review of the first year of operation

A review of the first year of operation PI: S. Rhone, Funding: Supported in kind by the WHRI

#### **Oak Tree Program**

Mechanism of Aging Following Exposure to Antiretroviral Drugs/ Emerging Team Grant in HIV Therapy and Aging PI: H. Cote Funding: CIHR A Study of the Immunobiology of an HPV VLP Vaccine in a Cohort of HIV Positive Girls and Women PI: D. Money Funding: CIHR If Hepatitis C Virus (HCV) is an Opportunist Infection, Why has HAART not lead to Dramatic Improvements in Liver Disease? PI: M. Klein; Site PI: N. Pick Funding: CIHR

#### Diagnostic Ambulatory Program (DAP)

DAP: Diagnostic ultrasound, fetal assessment and treatment, and prenatal procedures

Assessment of variability in Ultrasound Measurements of BPD, HC, AC and FL

PI: A. Gagnon, Funding: Supported in kind by the WHRI

Research in Advanced Fetal Diagnosis and Therapy (RAFT) Group

PI: C. Mayer, Funding: WHRI Capacity Building Award Sonography of normal and pathological cortical lamination

and maturation of the fetal brain

PI: D. Pugash, Funding: Supported in kind by the WHRI

#### DAP: Newborn Care

Detection of Congenital CMV Infection in Children at the Highest Risk of Developing Late Onset Hearing Loss Pl: E. Castillo Funding: Children's Telethon DAP: Medical Genetics Program An Estimation of the Prevalence of Gastroschisis in British Columbia Pl: L. Dahlgren Funding: WHRI-supported summer student project

Impact of genetic counselling for women who have a family history of a major mental illness

PI: J. Austin, Funding: BC Women's Auxiliary DAP: BC Prenatal Genetic Screening Program *Can PAPPA2 be used as an early marker of preeclampsia?* PI: J. Christians Funding: WHRI Nelly Auersperg Award

#### Diabetes in Pregnancy Clinic

After Gestational Diabetes: A Type 2 Diabetes Prevention Project PI: P. Janssen, Funding: Supported in kind by the WHRI

#### UBC Centre for Reproductive Health

Noninvasive assessment of embryo quality in human in vitro fertilization: metabolomic profiling of embryo culture media with Raman spectroscopy PI: A. Cheung Funding: WHRI Catalyst Grant

#### Fir Square Combined Maternity Care Unit

An Evaluation of Rooming-in among Substance-exposed Newborns in British Columbia

PI: R. Abrahams Funding: BC Children's Telethon

Effects of ultrasound on maternal-fetal bonding and compliance: A comparison of two schedules of two-dimensional imaging PI: R. Abrahams, Funding: WHRI Sue Harris Research Award

A Minority Group? Examining the nature, sustainability and treatment practices of BC's MMT prescriber workforce PI: A. Salmon Funding: BC Mental

Health and Addictions Healing Ourselves: Mothers Recovering from Grief and Loss in Vancouver's Downtown Eastside

PI: A. Salmon Funding: Victoria Foundation

#### Aurora Centre Program

Developing a Protocol for Respectful Health Research involving Substance-Using Women PI: A. Salmon, Funding: CIHR

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### WHRI FACILITATES FAMILY PRACTICE RESEARCH

Sue Harris Family Practice Research Fund Grant Recipients: 2010 & 2011

The Sue Harris Family Practice Research Fund honours the life and values of Dr. Sue Harris, a highly regarded family doctor and former Head of the Department of Family Practice at BC Women's Hospital. Criteria for the grant reflect her values which include:

- a commitment to full-spectrum family practice primary care
- a woman-centred focus
- collaborative care
- a holistic approach
- a respect for innovation, and
- a commitment to supporting improvements in practice

The Sue Harris Family Practice Research Grant (SHFPRG) supports research that contributes to women's health within the discipline of family practice.

Left to right: [2010 Recipients] Dr.

Jessica Chiles, Dr. Meghan Guy, Dr. Caroline Turner.[2011 Recipients] Dr. Andrea Szewchuk, Dr. Elena Paraskevopoulos, Ms. Leslie Clough, Dr. Karen Buhler, Dr. Zoe Hodgson.

Missing: [2011 Recipients] Dr. Ron Abrahams, Dr. Betty Callam, Dr. Renée Fernandez, Dr. Renee Hall

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## DESCRIPTIONS OF THE 2011 SHFPRG WINNERS' PROJECTS

### Effects of ultrasound viewing frequency on maternal-fetal bonding and compliance.

Dr. Ron Abrahams and Dr. Zoe Hodgson - \$5,000 See Award Winner Researcher Spotlight on page 12.

#### **Does group prenatal care improve outcomes for mothers and newborns?** Leslie Clough, Dr. Karen Buhler, Dr. Reneé Fernandez & Dr. Renee Hall - \$5,000

Connecting Pregnancy is an innovative type of prenatal care providing health assessment, prenatal education, and peer support to women and their partners in a group structure. This program is provided at BC Women's Hospital (BCWH) by the Family Practice Maternity Service (FPMS) in collaboration with the Patient and Family Education program. The FPMS provides both traditional and group prenatal care. With its limited number of physicians, standardized early pregnancy, delivery, and post partum care, and the same environment for delivery, the FPMS provides an ideal setting within which to compare group prenatal care with traditional care. In the proposed prospective case-control study this program is evaluated for improved outcomes in patient satisfaction, rating of self-efficacy and for improved health outcomes for mother and baby compared to a similar patient population receiving traditional care.

#### **Community for the Pap: Predictors and Needs of Never and Under-Screened Queer Women.** Dr. Andrea Szewchuk & Dr. Betty Callam - \$1,500

In Canada, women who have sex with women have lower rates of cervical screening uptake than women who engage in heterosexual behavior, despite being at increased risk for cervical neoplasia. Previous studies have identified screening barriers, including decreased perception of risk in both women and their care providers. Few studies, however, focus specifically on the experiences of women who are not accessing appropriate screening. This project will involve a mixedmethods community-based participatory research approach to explore the issues associated with never and underscreening in queer women. A working group of key informants and community members will be recruited in order to identify key screening issues. Interviews with these collaborators will be used to create a survey which will be distributed to women online. Following, community forums will decide how results will be used and make suggestions for improved practice and screening in this group.

#### **Health Care Barriers of Women Seeking Refuge in Transitional Shelters.** Dr. Elena Paraskevopoulos - \$2,500

Everyday in Canada, approximately 4000 women and children seek refuge in shelters. Studies confirm that the lack of permanent residence and the usage of shelter facilities increase the risk of developing health problems and encountering barriers to care. While this population of women is often most at risk for health deterioration, it also faces the most difficulty finding health information, as well as preventative, acute and/or chronic care. The aim of this research project is to identify the barriers to care as perceived by women residing in transitional shelters, and to demonstrate that women in housing crisis experience limitations to health care access. This study will explore women's perceptions of health access, barriers to care, and methods of improving the current system. In order to address these issues, focus group sessions will be held in women-focused transitional shelters throughout Vancouver.





### SUE HARRIS AWARD WINNER RESEARCHER SPOTLIGHT: DR. RON ABRAHAMS & THE POWER OF ULTRASOUND



Ultrasound scans have quickly gained popularity as a key component in the establishment of the bond between a mother and child, with research demonstrating increased feelings of maternal attachment following ultrasound scans. Decreased maternal-fetal attachment in the prenatal period could have negative long-term effects on parental attachment. These studies have focused on low-risk women with uncomplicated health needs, and no such research has been conducted among substanceusing women. Targeting this vulnerable population has tremendous potential given the existing evidence base showing that substance-using women who have stronger maternal-fetal attachments are also more engaged with their prenatal health teams.

The Fir Square Combined Care Unit (Fir) hosts one such prenatal healthcare team, which provides care for substance-using women and their newborns in a single unit. In June 2011, Dr. Ron Abrahams and Dr. Zoë Hodgson received the Sue Harris Family Practice Research Grant to investigate the effects of the frequency of ultrasound scans

on maternal-fetal bonding, reported drug-use and length of stay on the Fir unit. It is thought that having more frequent ultrasounds increases maternal feelings of bonding and ultimately leads to greater compliance with prenatal care. Dr. Abrahams outlines the current practice on Fir: "Our clinical experience and approach presently on Fir Square is to offer regular ultrasound screening every two weeks. Clinically, this is the cheapest bonding tool we have, and for women whose lives are complicated by trauma, disenfranchisement, and subsequent problematic substance use, facilitating gestational bonding for these moms is critical to improving outcomes."

Although the current standard of practice on Fir is to offer bi-weekly ultrasounds to patients, this standard of care has never been formally evaluated. "Even though many clinicians understand the emotional significance of ultrasound viewing, it is not acceptable to offer regular ultrasound screening without an obstetric indication because there is no evidence to justify this practice. If we can show that ultrasounds are an easy and effective bonding tool that improves maternal health behaviors, this evidence can be used by other centers to justify integrating regular ultrasound screening into their prenatal care".

"Ultimately, we hope that through providing the best possible evidence-based care for marginalized women during pregnancy, more moms and babies will go home together and continue to become healthy families."

### NELLY AUERSPERG AWARD WINNER RESEARCHER SPOTLIGHT: DR. JULIAN CHRISTIANS & PAPPA2

Dr. Julian Christians won the 2011 Nelly Auersperg award for his project "Can PAPPA2 be used as an early marker of preeclampsia?"

Preeclampsia affects 5-7% of pregnancies and is a leading cause of maternal mortality. Currently there is no way to accurately predict this complication, and yet early identification of pregnancies at risk would facilitate monitoring and preventative treatment. There is therefore great interest in developing markers that indicate whether there may be a problem with placental development that puts a woman at risk of preeclampsia. One potential marker under investigation includes first-trimester levels of a protein called PAPPA in the maternal blood stream, which numerous studies have associated with a variety of diseases of pregnancy. More recently, a few studies have found that the levels of a related protein, PAPPA2, are higher at delivery in placentae from preeclamptic pregnancies. However, because PAPPA2 has only been studied in placental samples obtained at delivery, it is not clear whether PAPPA2 could be used for early screening, i.e., by measuring circulating levels of PAPPA2 protein in the first trimester. Dr. Christians' research will be the first to address the potential of PAPPA2 as an early marker for placental disease. The study will measure first trimester PAPPA2 levels in blood samples obtained from two prenatal screening programs to determine (a) factors that contribute to variation in PAPPA2 levels in normal healthy pregnancies (e.g., gestational age at sampling, ethnicity, maternal weight, smoking, medication), and (b) whether first trimester PAPPA2 levels differ between healthy pregnancies and those that develop preeclampsia. Results from the study have tremendous potential to reduce infant and maternal morbidity and mortality.

The Nelly Auersperg Award is given annually to honour the work of UBC Professor Emeritus and longstanding researcher at BC Women's Hospital, Dr. Nelly Auersperg. Nelly Auersperg, M.D., Ph.D., has both a medical and a basic science background, and is one of Canada's foremost cancer cell biologists. She is an international leader in the establishment of laboratory techniques for the study of ovarian cancer. The Nelly Auersperg Award in Women's Health Research is granted to a promising researcher in an area of women's health to conduct an innovative research project (be it basic or applied science, using quantitative or qualitative methods on a topic related to women's physical or mental health).

# **NEWS FROM THE WHRI INTEGRATIVE GENOMICS CLUSTER: MAJOR SUCCESS FOR** THE VAGINAL MICROBIOME **GROUP INITIATIVE (VOGUE)**

In summer 2011, the VOGUE team (Vaginal Microbiome Group Initiative), lead by Dr. Deborah Money of the Women's Health Research Institute and the University of British Columbia, was awarded \$2.4 million from CIHR and Genome BC in support of their innovative work. Dr. Money and colleagues Dr. Janet Hill and Dr. Sean Hemmingsen at the University of Saskatchewan, Dr. Gregor Reid at the University of Western Ontario, and Dr. Alan Bocking at the University of Toronto, along with many other coinvestigators and collaborators from across Canada, are conducting pioneering research that employs sophisticated genomic tools to better characterize the microbial environment of the vagina, a research area that remains poorly understood.

The healthy vagina is host to millions of microorganisms, including many types of "good" bacteria that protect against invading pathogens, and help to promote healthy pregnancy. Until now, clinicians and scientists have had relatively unsophisticated tools at their disposal for studying this critically important ecosystem. It has only been with recent advances in genomic sequencing technology that researchers have been able to uncover and truly understand the sheer number and diversity of organisms that inhabit the vagina of healthy women. Essentially, from a single swab taken from the vagina, it is now possible to sequence a section of the DNA from each type of bacteria present, and use this unique DNA "fingerprint" to identify them. Knowing exactly which organisms are found in healthy women enable the development of new tools for diagnosing abnormal organisms, and better ways to treat infections and promote reproductive health.

Since receiving the award, which generated widespread national media coverage, the VOGUE team has made several preliminary discoveries that have been featured at international research conferences. Highlights include the presentation of eight abstracts at the 2011 International Human Microbiome Conference, including research results that showed that even among healthy women who report no symptoms, there are huge differences in kinds of bacteria that are present, and the relative amounts of these bacteria from woman to woman. Following this, two VOGUE trainees presented their research at the Annual Conference of the Infectious Diseases Society for Obstetrics and Gynecology in August 2011. Daljeet Mahal (UBC) presented evidence that HIV positive women show significantly greater variation in the types and abundance of bacteria present in the vagina than HIV negative women, and identified associations between specific types of bacteria and overall immune system health. Teenus Jayaprakash-Paramel (U Sask) presented new data that suggested that the bacteria known as Gardnerella vaginalis, which has been associated with unpleasant vaginal symptoms and infection in some, but not all women, may actually be four distinct sub-species. Only one of these sub-groups was associated with vaginal symptoms, which could have important clinical and diagnostic implications. Ms. Jayaprakash-Paramel received the prestigious Young Investigator Award for this work.

Taken together, these findings emphasize the importance of a broad clinical definition of vaginal health, and the need for interventions that are both personalized and targeted, in order to restore a microbial community that optimizes health in each individual woman.









VOGUE Team Workshop 2011 WHRI Annual Report 2010-2011 15

### THANK YOU TO THE ISMAILI COMMUNITY OF BC

From 2008 through to 2010, the Ismaili community of BC partnered with BC Women's Hospital & Health Centre Foundation to raise funds for research into women's health. This three year partnership raised a total of \$909,843, and net proceeds have gone directly to the WHRI.

Thanks to these funds raised by the Ismaili Walk for Women, the WHRI will be able to catalyze women's health research in a multitude of ways. For example, the WHRI used these funds to hold its inaugural Research Capacity Building Award competition in 2010. Investigators were eligible to apply for up to \$20,000 of infrastructure funding. It is with great pleasure that we announce the winners of the Capacity Building Awards.



Ismaili Walk 2011

#### The RAFT Group

Infrastructure support from the WHRI Research Capacity Building Award has allowed the Research in Advanced Fetal diagnosis and Therapy group, led by Dr. Chantal Mayer (formed in Feb. 2009), to move from a predominantly discussion group of investigators and clinicians to a productive working group advancing the field of fetal diagnosis and therapy. They have been able to hire a research assistant dedicated to coordinating projects and providing general research support.

#### The Anesthesia Research Group

Infrastructure support from the WHRI Research Capacity Building Award has allowed the Anesthesia Research Group, led by Dr. Roanne Preston, to establish a dedicated program of high quality clinical research within the department. They have been able to hire a research assistant to coordinate the research program and they have been able to purchase the obstetrical monitoring equipment needed to conduct future studies into the effects of novel anesthetic medications and techniques.

The WHRI has also been able to use the Ismaili funds to build partnerships with the Michael Smith Foundation for Health Research and the UBC School of Population and Public Health (see next page). Both partnerships support trainees' research in the area of women's health. We are sincerely grateful for the support of the Ismaili community.

**Research Associate Sponsors:** Amica, A&W, LifeLabs, Park Place, Park Royal, Richard's on Richards, Sodican, Stikeman Elliott **Research Supporting Sponsors:** Back to Wellness Centre, Baxter, Cardinal Health

### **BUILDING PARTNERSHIPS** WITH...

#### **Michael Smith Foundation**

The Michael Smith Foundation is celebrating its 10th anniversary this year; 10 years focused on strengthenin BC's health research enterprise. In the 2010/2011 year, there were 63 recipients of awards to support postdoctoral fellowships. "Through these awards, MSFHR is investing in a healthy future for British Columbia," says Dr. Bruce Clayman, MSFHR's interim President and CEO. "Providing support to the scholars helps recruit and keep these exceptional investigators in BC, enabling them to establish research programs that can attract additional funding into the province. The post-doctoral fellows hold promise to become the next generation of premier health researchers."

The WHRI partnered with the Michael Smith Foundation and NeuroDevNet this year in supporting a post-doctoral fellow.

The MSFHR-WHRI-NeuroDevNet Fellowship 2011 is supporting:

Gillian Hanley, Ph.D. Candidate

School of Population and Public Health, CFRI, University British Columbia, Vancouver, BC

#### Project Title:

Socioeconomic status as a predicator for prenatal mental health, use of selective serotonin reuptake inhibitors durin pregnancy, and infant outcomes

Award term: 2011-2014

Supervisors: Dr. Patricia Janssen & Dr. Tim Oberlander





### UBC School of Population & Public Health

ιg	The WHRI partnered to support the UBC School of Population and Public Health's Maternal Child Health (SPPH MCH) Theme in the year 2010/2011 by offering a practicum stipend to one of the Master's in Public Health students and a scholarship to a graduate student undertaking a thesis in the area of maternal child health.
) 1 h	The Maternal Child Health Theme, co-led by Dr. Patricia Janssen and Dr. Tim Oberlander, takes a population health perspective on improving the health and well-being of women, children, youth and their families through research, education, advocacy, and administration.
n al of	UBC SPPH's MCH theme fosters the development of the next generation of practitioners; whose specialty areas car range from infrastructure building (e.g. needs assessment to identify essential gaps in existing programs serving mothers and children), population health monitoring (e.g. incidence of very low birthweight infants), to applied prevention research (e.g. planning and evaluation of home- based injury prevention programs for toddlers).
l ng	These goals are complementary to the WHRI's mission: "Creating new knowledge and evidence-based solutions that inform and transform the health and health care of all women", and we look forward to announcing the award winners and continuing to strengthen our relationship with the SPPH.



a place of mind

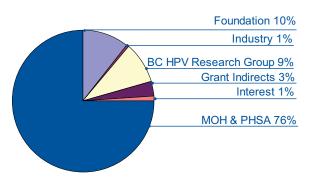
### WHRI FUNDING: FISCAL YEAR 2010-2011:

### **WHRIFUNDING: A RETROSPECTIVE**

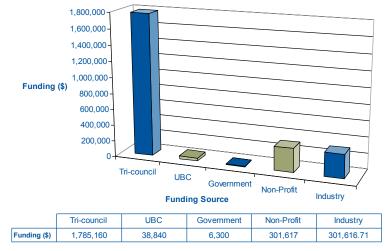
#### **Foundations & Granting Agencies**

AstraZeneca Canada Inc. Bayer, Inc. (Canada) BCCDC BC Children's Hospital Foundation BC Endocrine Research Foundation BC Government BC Medical Services Foundation BCMHA Research Network BC Women's Hospital Foundation Canadian Breast Cancer Research Alliance CIHR Coast Capital Savings Depression Research Foundation Gilead Sciences Canada GlaxoSmithKline Inc. (Canada) Leslie Diamond Foundation March of Dimes Birth Defects Foundation Merck Frosst Canada Ltd. MSFHR Molly Towell Perinatal Research Foundation NSERC Novo-Nordisk Pacifica Family Research Foundation PHSA PHAC SSHRC Society of Family Planning Sue Harris Research Fund UBC Wyeth Canada

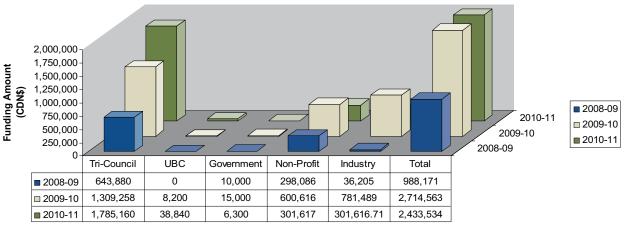
#### Operational Funding 2010/11: Total = \$746,575



#### Research Funding 2010/11: Total = \$2, 433, 534



#### WHRI Grant Funding Summary (FY 2008-2010)



Funding Category

Note: The funds presented in the above graph represent only those awarded to Full members of the WHRI. Funding to investigators whose primary affiliation is not the WHRI is not included in the above graph.

While the dollar amounts in the above graph represent the amounts that were released for those years, WHRI investigators have been incredibly successful in grant competitions. In some cases, investigators have won awards to be released over a period of 6 years! Funding from grants awarded this year will be reported in future years as the funding is released and available for use.

In the WHRI's inaugural report was the statement: "Since our inception in 2005, the WHRI investigators have generated more than \$7.8 million in directly facilitated grants". This total has now increased to more than \$20 million in WHRI facilitated grants (This dollar amount includes funds that have been awarded, but not yet released, as well as funds to principal investigators who are not Full members of the WHRI).

Also in that report was the statement: "Our goal is to develop sustainable ongoing operational support to capitalize on our research funding success and leverage our resources to truly make our mark as a leader in cross-pillar women's health research". Becoming a fully integrated part of BC Women's Hospital in September 2011 represents a significant step towards the realization of this goal.



# **OUR PEOPLE**

THE SUCCESS AND PHENOMENAL GROWTH OF THE WOMEN'S HEALTH RESEARCH INSTITUTE HAS BEEN MADE POSSIBLE BY THE SUPPORT OF OUR BOARD OF DIRECTORS AND CONTRIBUTIONS OF OUR TALENTED INVESTIGATORS, TRAINEES AND STAFF. IT IS THEIR COMMITMENT TO A BETTER FUTURE FOR WOMEN ACROSS BRITISH COLUMBIA AND AROUND THE WORLD THAT MAKES THE WHRI AN EMERGING LEADER IN WOMEN'S HEALTH RESEARCH.

Treasurer

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#### Staff

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Addictions Research: Nancy Lipsky Contraception & Abortion Research Team: Arezou Azampanah Eleanor Alzona-Malabanan Oak Tree Clinic Research Staff: Evelyn Maan Elaine Fernandes Claire Hall-Patch Rebecca Grahem Ashley Docherty

#### Investigators

#### Full

Dr. Ron Abrahams Dr. Catherine Allaire Dr. Elizabeth Andrew Ms. Lucy Barney Dr. David Burdge Ms. Jeannette Burgunder Dr. Blair Butler Ms. Leslie Clough Ms. Cheryl Davies Dr. Joanne Douglas Ms. Lisa Eccles Ms. Lehe Elarar Dr. Brian Fitzsimmons Dr. Alain Gagnon Ms. Kathy Gregg Dr. Vit Gunka Ms. Catriona Hippman Dr. Zoë Hodgson Dr. Georgia Hunt Ms. Heather Loane Ms. Evelyn Maan Ms. Marion Mackay-Dunn Dr. Ruth E. Martin Dr. Chantal Maver Dr. Sheona Mitchell Dr. Deborah Money Dr. Melanie Murrav Dr. Wendy V. Norman Dr. Becky Palmer Dr. Elizabeth Peter Dr. Neora Pick Dr. Roanne Preston Dr. Denise Pugash Ms. Debbie Reid Ms. Lenore Riddell Dr. Amy Salmon Ms. Lee Saxell Dr. Julianne van Schalkwyk Dr. Judith Soon Dr. Patrick Thornton Dr. Saraswathi Vedam Ms. Lisa Venables

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### WHRI-AFFILIATED PUBLICATIONS

(April 1, 2010 to March 31, 2011)

Peer-reviewed papers published during the period April 1, 2010 to March 31, 2011.

**1. Christians JK**, and Gruslin A (2010) Altered levels of insulin-like growth factor binding protein proteases in preeclampsia and intrauterine growth restriction. Prenatal Diagnosis 30: 815-820.

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