



*Program Information for the
Interdisciplinary Women's Reproductive
Health Research Training Program (IWRH)
2007 – 2008*

IWRH Program Overview

The IWRH training program is an interdisciplinary graduate training program jointly funded by the Canadian Institutes of Health Research (CIHR) and the Child and Family Research Institute (CFRI) in Vancouver, British Columbia. The IWRH vision is to promote research that will benefit the reproductive health of women, and the well being of their families, within the context of their cultural background, geographic location, and socio-economic status. Its aim is to increase the number of highly trained investigators who will embark on independent scientific careers addressing women's reproductive health concerns across the lifespan. This will be accomplished by providing a mentored research experience that bridges basic biomedical, clinical, and social science disciplines and social science expertise for graduate students, post-doctoral fellows, and clinical trainees.

Program Goal

The aim of the IWRH program is to produce investigators who examine women's reproductive health issues from an interdisciplinary perspective. To achieve this goal, faculty members from CFRI and the University of British Columbia (UBC) provide a rich intellectual and technical environment for IWRH trainees. Mentors have established research programs covering a broad range of research in basic and applied biomedical, clinical, and social sciences, and provide needed expertise and resources to ensure that the IWRH trainees benefit from a broad perspective on women's reproductive health issues. Thus, the key priority of the IWRH research training program is to ensure that research findings in these diverse areas of women's reproductive health are integral to the training experience of a new generation of researchers.

Program Structure

The IWRH program is structured around a curriculum, but is not a degree-granting program. To be eligible for funding a trainee must be enrolled in one of eight participating departments, and must be supervised by an IWRH mentor (see below for a list of mentors and their affiliated departments). A trainee may also be co-supervised by a UBC research faculty member who does not need to be an IWRH mentor but must meet IWRH requirements. The trainee's project must cross two of the four CIHR pillars of research (biomedical; clinical; population and public health; and health systems and services). The IWRH co-directors and the steering committee is involved with admissions and directing the program. Both a graduate student and a post-doctoral student may be elected to participate in the steering committee.

Curriculum

The program requires that trainees meet two times each month. One meeting per month is informal time for the trainees where, for example, they may informally present their work, discuss conference proceedings; offer lab or clinical visits for their research project to other trainees; or host a speaker. The other meeting will be a mentor seminar series. Examples of topics discussed in the program are:

1. Mechanisms of action of reproductive steroid and peptide hormones in relation to normal and abnormal reproductive functions.
2. Infertility – causes (biological and societal), diagnosis, treatment, iatrogenic effects of treatment
3. Assisted reproductive technologies – ovulation induction, in vitro fertilization, intracytoplasmic sperm injection.
4. Placentation – molecular and cellular mechanisms, placental functions, abnormalities, consequences of placental abnormalities.
5. Developmental biology – molecular and cellular mechanisms of embryogenesis, teratogenesis and gene imprinting.
6. Microchimerism – fetal cells and DNA in the mother.
7. Chromosomal abnormalities and congenital anomalies - causes, mechanisms, diagnosis, treatment, pre-natal diagnosis/screening.\
8. Fetal development, physiology and metabolism - biology and clinical significance.
9. Maternal adaptations to normal pregnancy.
10. Medical and obstetric complications of pregnancy – gestational diabetes, preeclampsia, bacterial, and viral infections.
11. Maternal psychiatric complications during pregnancy and the post partum period
12. Psychosocial complications of pregnancy – alcohol and drug abuse, verbal and physical violence during pregnancy.
13. Mechanisms of parturition – term, preterm and post-term birth.
14. Developmental origins of adult health and disease.
15. Reproductive cancers.
16. The transition at birth – neonatal physiology, nutrition and metabolism (maternal and infant interactions).
17. Post-menopausal health – osteoporosis, heart disease.
18. Clinical research, clinical trials and population health – value and pitfalls in reproductive health research.
19. Ethical issues – (using human tissue in research).

Mentors

Mentors supervise trainees in both their academic committees and in the IWRH program. The mentors for 2007-2008 are:

Epidemiology

Patti Janssen *Health Care & Epidemiology* pjanssen@interchange.ubc.ca

Internal Medicine

Laura Magee *Internal Medicine* lmagee@cw.bc.ca

Maternal and Fetal Health

Ken Lim *Obstetrics & Gynaecology* klim@cw.bc.ca

Deborah Money *Obstetrics & Gynaecology* dmoney@cw.bc.ca

Amanda Skoll *Obstetrics & Gynaecology* askoll@cw.bc.ca

Peter von Dadelszen *Obstetrics & Gynaecology* pvd@cw.bc.ca

Pathology & Laboratory Sciences

Deborah McFadden *Pathology & Laboratory Sciences* dmcfadden@cw.bc.ca

Pediatrics

Tim Oberlander *Paediatrics* toberlander@cw.bc.ca

Social Determinants of Reproductive Health

Lori Brotto *Obstetrics & Gynaecology* Lori.Brotto@vch.ca

Annette Browne *School of Nursing* browne@nursing.ubc.ca

Reproductive Biology

Nelly Auersperg *Obstetrics & Gynaecology* auersper@interchange.ubc.ca

Anthony P. Cheung *Obstetrics & Gynaecology* apcheung@interchange.ubc.ca

Keith Choi *Obstetrics & Gynaecology* kchoi@cw.bc.ca

Sandra Dunn *Paediatrics* sedunn@interchange.ubc.ca

Geoff Hammond *Obstetrics & Gynaecology* ghammond@cw.bc.ca

Peter Leung *Obstetrics & Gynaecology* peleung@interchange.ubc.ca

Sai Ma *Obstetrics & Gynaecology* sai@interchange.ubc.ca

Colin MacCalman *Obstetrics & Gynaecology* cdmaccalman@hotmail.com

Dan Rurak *Obstetrics & Gynaecology* drurak@cw.bc.ca

Reproductive Genetics

Carolyn Brown *Medical Genetics* cbrown@interchange.ubc.ca

Sylvie Langlois *Medical Genetics* slanglois@cw.bc.ca

Barb McGillivray *Medical Genetics* bmcgillivray@cw.bc.ca

Wendy Robinson *Medical Genetics* wprobins@interchange.ubc.ca

Reproductive Mental Health

Shaile Misri *Psychiatry* smisri@providencehealth.bc.ca

Co-Mentors:

Co-mentors may share supervisory responsibilities with an IWRH mentor. The co-mentor does not need to be an IWRH mentor, but they must take responsibility for their trainee's academic project. For instance, they must host the trainee as part of a lab or clinical rotation, and they may also provide other contributions, such as speaking in the seminar series. The

decision to accept a non-IWRH mentor as a co-mentor for a trainee project is made on an individual basis by the Steering Committee during the application review process. Trainees are encouraged to bring their proposed project and proposed co-mentors to the attention of Steering Committee members prior to the application deadline to receive feedback prior to submitting their application.

Steering Committee:

The Steering committee leads the scientific focus and direction of training activities. The Steering Committee is responsible for setting policy for the IWRH program, and also reviews and accepts applications. The Committee meets at least two times per year and oversees major events, such as completing the annual CIHR reviews, accepting new co-mentors into the program, and the review of applications. A post-doctoral fellow or a graduate student may sit on the Steering Committee, but do not vote regarding trainee applications. The trainee may be asked to leave during part of a Steering Committee meeting to allow for faculty-only discussions. The co-directors and the program coordinator organize the seminar series and the interdisciplinary training and oversee trainee participation in various events, such as conferences, organising guest speakers, and social activities.

The members of the Steering Committee are:

Peter Leung	Nominated Principal Applicant	<i>Obstetrics & Gynaecology</i>
Patricia Janssen	Principal Applicant Co-director	<i>Health Care & Epidemiology</i>
Wendy Robinson	Principal Applicant Co-director	<i>Medical Genetics</i>
Dan Rurak	Principal Applicant	<i>Obstetrics & Gynaecology</i>
Colin MacCalman	Principal Applicant	<i>Obstetrics & Gynaecology</i>
Carolyn Brown	Principal Applicant	<i>Medical Genetics</i>
Geoffrey Hammond	Principal Applicant	<i>Obstetrics & Gynaecology</i>
Ken Lim	Co-Applicant	<i>Obstetrics & Gynaecology</i>
Barbara McGillivray	Co-Applicant	<i>Medical Genetics</i>
Dawn McArthur	External Member	<i>CFRI</i>
Allison Rintoul	External Member	<i>CFRI</i>

Program Advisory Committee:

The program advisory committee advises the steering committee on issues such as recruitment, maintenance an interdisciplinary focus and program evaluation.

The members of the Program Advisory Committee are:

Judith Hall	Professor Emeritus	<i>Pediatrics/Medical Genetics</i>
Sidney Effer	Professor Emeritus	<i>Obstetrics and Gynaecology</i>
Samuel Sheps	Professor, former Head	<i>Health Care and Epidemiology</i>

Program Requirements for Trainees

Trainees are graduate students, post-doctoral fellows or clinician scientists. Trainees who apply to the program and are not funded may still be invited to participate in program activities.

Seminar Series:

Monthly seminars are given by mentors or by their invited guest speakers. Attendance at the seminars is required for all IWRH trainees.

Informal Meetings:

The trainees will meet informally once a month with the program coordinator. This will be an opportunity to have student presentations, discussions on current reproductive health research and personal development training. Trainees may be subdivided into smaller groups based on their research interests (*see IWRH Research Pod document*).

Rotation:

The trainees must spend time on a project in another lab or clinical setting. If a co-mentor has been accepted by the Steering Committee on the IWRH application, then the co-mentor would host this rotation. The trainees are encouraged to participate in rotations outside their academic discipline, which encourage interdisciplinary thinking. The time spent in a rotation would be determined by the mentor and trainee. It is anticipated that the rotation would contribute data towards a publication.

Mini-Workshop:

Trainees are required to host a mini-workshop once during their term in the program, either alone, in groups of twos or in designated research groups. Prior to the workshop, the host trainee(s) is required to provide a “cheat sheet” to the other IWRH trainees. This would include definition of common terms or acronyms that may be used by either the trainee or their invited speakers. The purpose is to provide a common vernacular prior to all trainees attending a workshop. After the workshop, the trainees will submit a feedback form and may meet as a group for a discussion. Feedback to the host trainee will be provided and questions or comments are considered. Each IWRH trainee must attend at least 50% of all the mini-workshops. Detailed guidelines for the mini-workshops are available on the website.

Trainee Dossier:

Trainees are required to maintain a record of their participation in seminars, workshops, conferences, or other events supported by the IWRH interdisciplinary mandate. At the end of the year, each trainee takes their dossier to their annual meeting with their mentor. The information gathered in the dossier easily translates into useful information for their CVs. The template for the training dossier is available on the website.

Annual Meeting between Supervisor, Co-mentor and Trainee:

The purpose of the annual meeting is to provide an opportunity for mentors and co-mentors to review trainee progress and for trainees to communicate their experience of the IWRH

program. The mentor, co-mentor and trainee will examine the trainee's dossier, which provides information on the required interdisciplinary trainee participation. A report from this meeting along with the trainee dossier is required for the student to be renewed for the second year of funding. If the trainee does not have a meeting form from their department, an IWRH meeting report form is available on the website.

Hosting lab/clinical visits for IWRH trainees:

In small groups, trainees will arrange to visit a clinical or a basic science laboratory during their time in the IWRH program. This visit may be hosted by an IWRH trainee who would provide a walk-through of their IWRH project for all other IWRH trainees. If a trainee group wishes to visit a particular lab or clinical setting they may put in a request with the program coordinator.

Travel (optional):

Each IWRH trainee is eligible for an IWRH travel and education grant for up to \$1000 per year. If a trainee's abstract is accepted at a conference the grant is to be used for travel and other miscellaneous expenses, such as poster boards. A trainee who wishes to receive educational training outside of Vancouver may use this fund in lieu of participating in a conference. Trainees may also apply for CFRI travel grants.

Applicant Information

Awards:

The IWRH Trainee Award is for a maximum of two years per level of training. For example, trainees who move from a Master's degree to become a doctoral candidate must reapply for a new award if they have maximised their two years as a Master's student.

Starting dates for graduate students are generally either September 1st or January 1st. Start date for post-doctoral or clinical fellows is within six months from when the award was offered and would begin on the first day of the month. See the website for details on the next award deadlines.

Recognition of IWRH Program:

Award recipients are expected to acknowledge the assistance given by IWRH in any publication or public presentation made during or resulting from the tenure of the award. Copies of these publications are not required by IWRH.

Funding:

Graduate and post-doctoral students are funded by the CIHR at \$17,850 per annum and \$36,750 per annum respectively. IWRH trainees are required to apply for, and accept when offered, awards from major, peer reviewed granting agencies within 12 months of receipt of their IWRH award. Those with equivalent funding elsewhere will not be eligible for IWRH funding. The award period stipend may be received for up to 2 years at competitive salary awards. The initial stipend will remain constant over the term of the award but adjustments may be made if the overall scale is adjusted to ensure it remains competitive with those of other major funding agencies.

Earnings from other sources:

Award recipients are expected to spend 75% of their time in research training. They may, with the approval of their supervisors, engage in and accept remuneration for limited institutional/organizational activities that contribute to their development as independent researchers. Award recipients must ensure that no more than 200 hours per year are committed to non-research activities.

Examples of non-research activities are:

- Teaching assistant
- Preparation time for being a teaching assistant (curriculum, exams)
- Contributions to laboratory supervision

Renewal requirements at the end of year 1:

Renewal for a second year of funding is dependent on satisfactory progress as judged by:

- Full participation of the trainee in program activities
- Submission of training dossier (*template available on the website*)
- Submission of a supervisory committee meeting report signed by mentor and co-mentor(s) (*form available on the website*).

The renewal documents are due eight weeks prior to the end of year 1 of the program.

Report requirements for the end of the program:

An up-to-date learning dossier is due one month prior to completion of the Studentship/Fellowship award. Each trainee will also meet with a co-director of the program for an exit interview. The exit interview can be scheduled by the program coordinator. A final official financial statement must also be provided for both the stipend and the research and travel allowance. Any funds remaining in the research and travel allowance at the end of the award must be returned to IWRH. Students will also be contacted one year following their award to learn about their current endeavours.

Termination of program support:

The award may be terminated at any time by the award recipient, supervisor, the institution/organization, or the IWRH training program. The award recipient and supervisor must immediately notify IWRH of any intention to terminate an award prior to its normal date of completion. If at any time during the term of the award, the mentor considers the progress of the award recipient is not satisfactory, IWRH must be notified immediately in writing. IWRH trainees will not be permitted to retain awards if they leave UBC. If a student defends their thesis and finishes their program prior to award completion, the student must notify the program coordinator. The award terminates when the trainee has finished their program.

Forms:

Forms are available to be downloaded from the IWRH website: www.iwrh.ca

The program does not accept e-mailed applications. Applications are to be sent via mail, courier, or delivered in person.

Staff

The IWRH staff is knowledgeable and supportive. The staff ensures the program runs smoothly by working closely with committees, mentors, and trainees. The staff coordinates the academic schedule and also organise social activities.

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