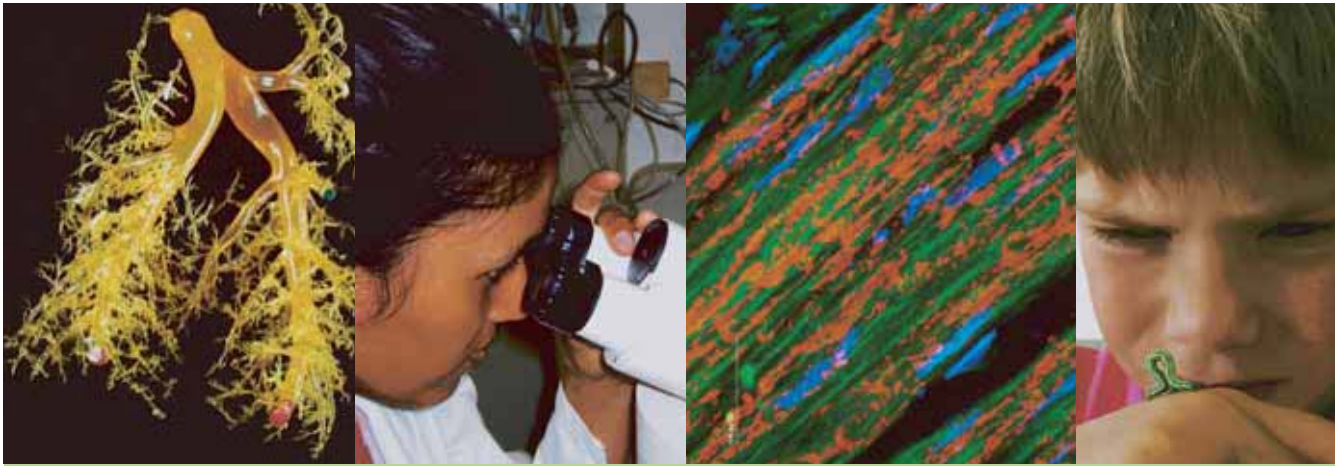


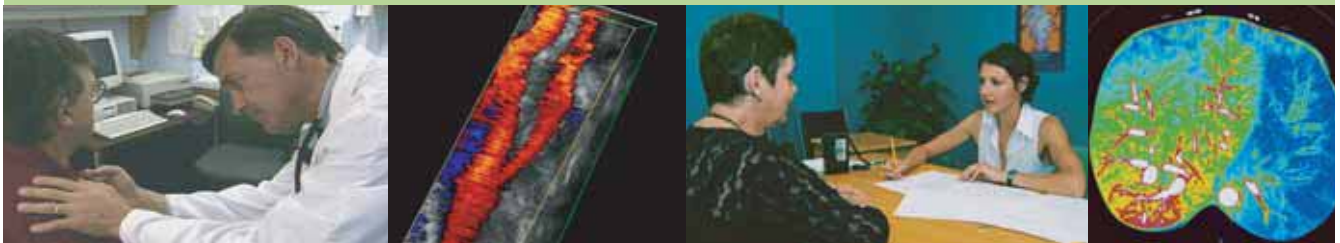


Canadian Institutes
of Health Research

Instituts de recherche
en santé du Canada



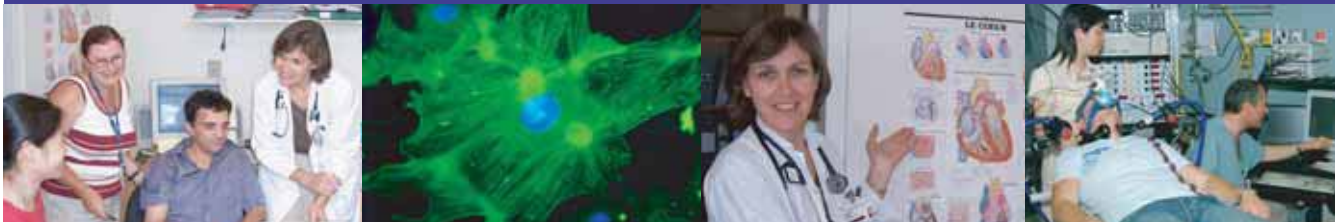
CIHR Institute of Circulatory and Respiratory Health



Annual Report



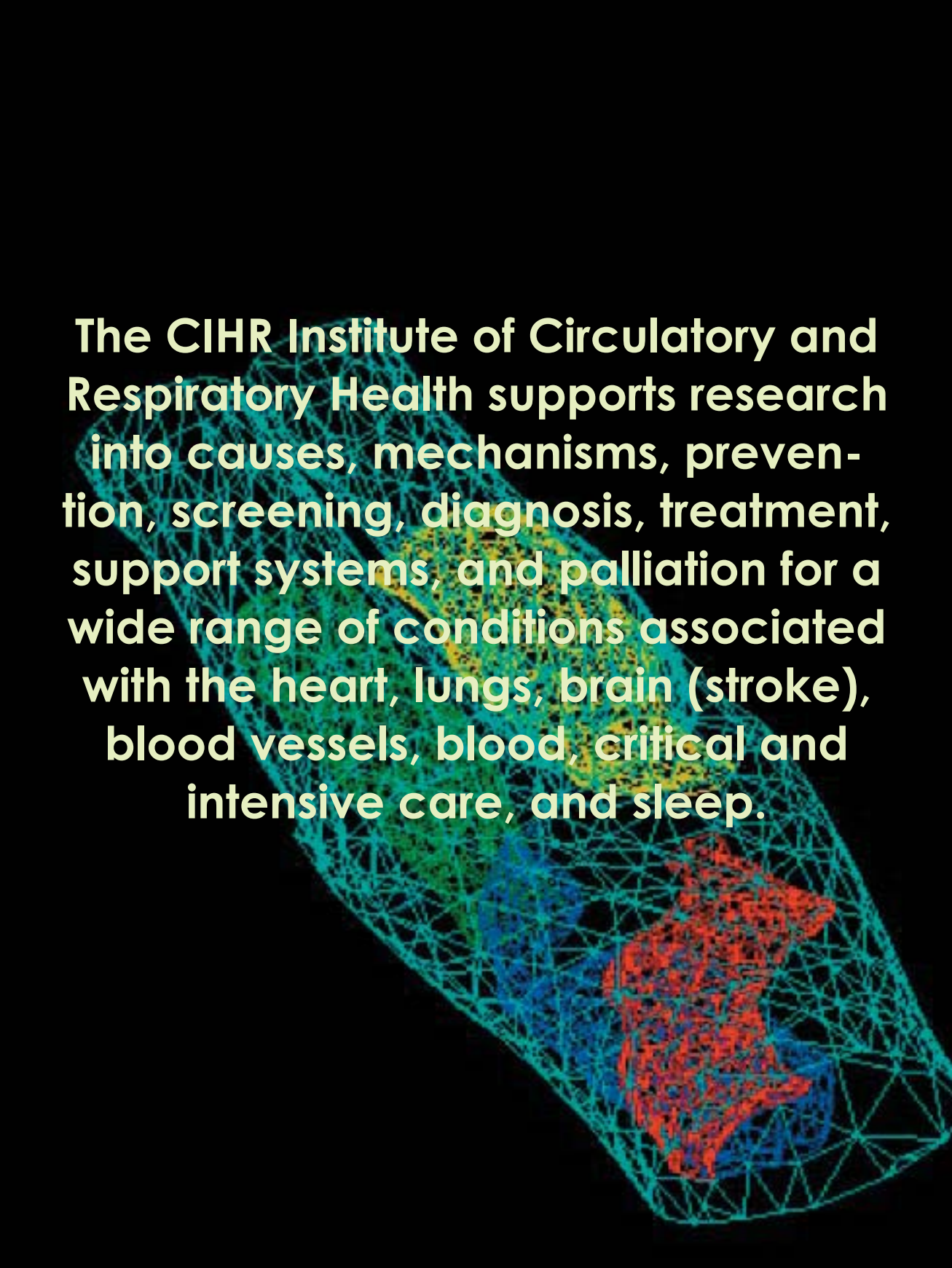
April 2004 – March 2005



Institute of Circulatory and Respiratory Health
Canadian Institutes of Health Research
Providence Health Care / St. Paul's Hospital, University of British Columbia
Burrard Building, Room 553
1081 Burrard Street
Vancouver, British Columbia V6Z 1Y6
www.cihr-irsc.gc.ca

©Her Majesty the Queen in Right of Canada (2005)
Cat. No. MR1-17/2005E-PDF
ISBN 0-662-40922-1

A few of the photos from the cover page were provided by
The James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research.



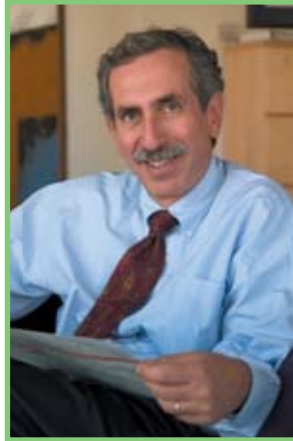
The CIHR Institute of Circulatory and Respiratory Health supports research into causes, mechanisms, prevention, screening, diagnosis, treatment, support systems, and palliation for a wide range of conditions associated with the heart, lungs, brain (stroke), blood vessels, blood, critical and intensive care, and sleep.

Table of Contents

Message from the President.....	3
Message from the Scientific Director.....	4
Who is ICRH?.....	5
Outstanding Research.....	7
Outstanding Researchers in Innovative Environments.....	10
Translating Health Research into Action.....	13
Effective Partnerships and Public Engagement.....	14
Organizational Excellence.....	17
TABLE I. Exemplary Talks/Visits Made by the Scientific Director* and Assistant Director#.....	20
APPENDIX I. Estimates of CIHR Funding of Circulatory and Respiratory Health Research.....	22
APPENDIX II. ICRH Investments in Strategic Initiatives.....	24
APPENDIX III. New Investments by ICRH in Strategic Initiatives.....	25
APPENDIX IV. Institute Support Grant.....	27
APPENDIX V. ICRH Support of Conferences, Symposia and Workshops.....	27

Message From the President

The past year has been one of tremendous advances in human health sciences. In Canada, the growth in circulatory and respiratory health research under the guidance of CIHR's Institute of Circulatory and Respiratory Health (ICRH) and its many partners has continued at an impressive pace. The innovative efforts of scientists grappling with hardening of the arteries, heart attack, stroke, chronic obstructive lung disease, asthma, and cardio-respiratory instability in the setting of sepsis have greatly improved our understanding of human health and disease. The work extends from studies of fundamental mechanisms to the populations at risk and reaches out from Canada to other countries facing similar challenges.



The ICRH has brought researchers together to pursue research programs and to have important discussions across disciplinary and thematic boundaries. The New Frontiers Program, ICRH's vehicle for building research agendas, has continued to chart new territory related to the ethical and operational issues in biobanking, computational approaches to circulatory and respiratory disease and the development of Canadian respiratory clinical trials capability, to name a few.

The ICRH has developed major partnerships with the National Heart, Lung, and Blood Institute (NHLBI) of the USA National Institutes of Health (NIH). The requests for applications brought forward by the NHLBI and ICRH together in the areas of resuscitative clinical trials, inflammation and thrombosis, and cellular and molecular imaging (regenerative medical sciences) have opened possibilities for ongoing collaborations across North America.

In Canada, ICRH has built a network of partners and hosted its fourth annual spring Partners Forum. These gatherings have demonstrated the power of partnership. They have also set in motion the means to achieving a national agenda in circulatory and respiratory sciences.

Over the past two years, ICRH has served as the home of CIHR's Clinical Research Initiative (CRI). The CRI is taking shape now under the vision of leaders from across Canada and the watchful and creative efforts of Bruce McManus, John Cairns and Mark Bisby.

I would like to extend my thanks to Bruce McManus, André Cantin, all the Institute Advisory Board members and Institute staff, the partner organizations and agencies that work with ICRH, and especially the researchers who are working together to address the circulatory and respiratory ailments so common in this country.

Sincerely,

Alan Bernstein, OC, PhD, FRSC
President
Canadian Institutes of Health Research

Message from the Scientific Director

The staff of ICRH has enjoyed the past year immensely. We have seen programs in our major strategic themes grow and mature, and we have seen an extraordinary community continue to break new ground at the bench, at the bedside, and in the community. We have received terrific guidance from our Institute Advisory Board (IAB) and from our many partners and the community-at-large. Collaborations with other CIHR Institutes and our public- and private-sector partners have made magic possible in several initiatives, both programmatic and enabling.

The privilege of working directly with members of the circulatory and respiratory community to improve the opportunities and environments for research and discovery continues to exhilarate. We are also steadily improving our overall approach to evaluation of programs already funded, such as the Strategic Training Initiatives in Health Research (STIHR) program and ICRH's major focus on genetic and environmental determinants of complex heart, lung, and blood vessel diseases. We will soon have a real sense of the impact emerging from the teams that have been working for the past few years. The fruits of reaching across conceptual and technological boundaries will soon be evident.

Perhaps the most satisfying development in the past year has been the hosting of the National Research Forum for Young Investigators (YI) in Circulatory and Respiratory Health (www.yiforum.ca), designed specifically for trainees and young faculty engaged in circulatory and respiratory health research. The first annual YI Forum was attended by about 500 young scientists. The atmosphere in the meeting was electric. From the Landmark Lectures to the posters, platform presentations, career fair and workshops, the excitement and sharing of knowledge and experiences was a joy to see and hear. The second YI Forum promises to be just as stimulating. A tradition will hopefully emerge, with a regular and compelling venue for the many young researchers from differing disciplines and themes dedicated to solving the mysteries of circulatory and respiratory diseases and disorders.

From the outset of the journey of the ICRH staff with our IAB and the community, there has been a focus on building a whole that is truly much greater than the sum of the parts. Every April, the Partners Forum (PF) has provided a place where organizations could



come together to learn, share, grow, trust, and imagine what we could do together to make circulatory and respiratory health research in Canada the strongest endeavor possible. Each year, the PF has had more in-depth agendas, coming this year to one focused on knowledge translation and knowledge use. We have also reached a point where we are ready to discuss the feasibility of an integrated national research agenda for circulatory and respiratory health, an over-arching vision that has been emerging more clearly each year that we have worked together and built

new initiatives. I believe that deliberations in the months to come will show how ripe the time is for a framework that guides us in our jointly shared goal of improving the heart, lung, and blood vessel health of Canadians.

In closing, I want to thank Arun, Elissa, Jennifer, Karen, Melanie, Salima and many others for making this past year so enjoyable and productive. I especially would like to welcome anyone interested in the circulatory and respiratory communities of this country to become involved in the activities of ICRH. We are only as strong as we are engaged together. And if there is any doubt, I must stress the dimensionality of our large community and explicitly mention all who are searching for answers to tough questions in relation to heart, lung, blood vessel, brain (stroke and other vascular maladies), blood, sleep and critical care diseases. We need to push ourselves to draw on approaches that relate to molecules, to cells, to organs, to patients, to health systems, and to populations, bringing together the talent that resides in disparate disciplines. Let's reach beyond the obvious in making our research efforts vibrant and meaningful.

With warmest regards,

Bruce McManus, MD, FRCPC, PhD, FRSC
Scientific Director
CIHR Institute of Circulatory and Respiratory Health

Who is ICRH?

ICRH Staff



Jennifer Bouchard
Project Officer
(On leave)



Arun Chockalingam
Associate Director
Tel.: (604) 806-8932
Fax.: (604) 806-8935
achockalingam@mrl.ubc.ca



Salima Harji
Manager, Special Projects
Tel.: (604) 806-8658
Fax.: (604) 806-8935
sharji@mrl.ubc.ca



Elissa Hines Reimer
Assistant Director
Tel.: (613) 954-0544
Fax.: (613) 954-1800
ehinesreimer@cihr-irsc.gc.ca



Bruce McManus
Scientific Director
Tel.: (604) 806-8934
Fax.: (604) 806-8935
bmcmamus@mrl.ubc.ca



Melanie Train
Manager, Institute Affairs
Tel.: (604) 806-8934
Fax.: (604) 806-8935
mtrain@mrl.ubc.ca



John Cairns
Project Leader



Janice Miller
Project Manager

CIHR Staff

Kathryn Andrews-Clay

Partnership Specialist
Knowledge Translation and Major Initiatives,
Partnerships
Tel.: (613) 954-1810
Fax.: (613) 954-1800
kandrews-clay@cihr-irsc.gc.ca

Karen Dewar

Deputy Director, Program Delivery (INMD, ICRH)
Knowledge Creation Programs - Program Delivery
(INMD, ICRH)
Tel.: (613) 941-4576
Fax.: (613) 954-1800
kdewar@cihr-irsc.gc.ca

Isabelle Faustin

Public Affairs Officer
Marketing and Communications, Public Affairs
Tel.: (613) 952-5746
Fax.: (613) 954-1800
ifaustin@cihr-irsc.gc.ca

Kelly Fitzpatrick

Program Delivery Officer
Knowledge Creation Programs, Program Delivery
(ICRH)
Tel.: (613) 941-4640
Fax.: (613) 954-1800
kfitzpatrick@cihr.gc.ca

Sylvie Gareau

Financial Advisor
Finance and Administration - Financial and Plan-
ning Advisory Services
Tel.: (613) 946-7231
Fax.: (613) 954-1800
sgareau@cihr-irsc.gc.ca

Gavin Lemieux

Senior Advisor/Evaluation and Analysis
Corporate Affairs - Evaluation and Analysis
(On leave)

CIHR Clinical Research Initiative



Annie Prud'homme G n reux
Project Officer

Who is ICRH?

Institute Advisory Board



Paul W. Armstrong
Professor
Department of Medicine
University of Alberta
Edmonton, Alberta



Peter Glynn
Health Care Consultant
Adjunct Professor, Department
of Community Health and Epidemiology,
Queen's University
Chairman of the Board,
Institute for Clinical Evaluative
Sciences
Kingston, Ontario



Graham Nichol
Associate Professor
Department of Medicine
University of Washington
Seattle, Washington



**André Cantin
(Chair)**
Professor
Department of Medicine
University of Sherbrooke
Sherbrooke, Québec



Frances Gregor
Associate Professor
School of Nursing
Dalhousie University
Halifax, Nova Scotia



Benjamin Rusak
Professor, Director of
Research
Department of Psychiatry
Professor
Departments of Psychology
and Pharmacology
Dalhousie University
Halifax, Nova Scotia



Jacques de Champlain
Professor
Departments of Physiology
and Medicine
University of Montréal
Montréal, Québec



Pavel Hamet
Professor, Department of
Medicine
Director of Research, Centre
hospitalier universitaire de
l'Université de Montréal
(CHUM)
University of Montréal
Montréal, Québec



Brian Rutt
Scientist, Imaging Research
Laboratories
Robarts Research Institute
Professor, Department of
Diagnostic Radiology and
Nuclear Medicine
University of Western
Ontario
London, Ontario



**Roxanne Deslauriers
(Vice-Chair)**
Director of Research
Institute for Biodiagnostics
National Research Council
of Canada
Winnipeg, Manitoba



Kathryn King
Associate Professor
Heritage Population Health
Investigator
Faculty of Nursing
University of Calgary
Calgary, Alberta



Jack Siemiatycki
Professor
Department of Preventive
and Social Medicine
University of Montréal
Montréal, Québec



Dana Devine
Director of Research and
Development, Canadian
Blood Services
Professor, Department of
Pathology and Laboratory
Medicine
University of British Columbia
Vancouver, British Columbia



Peter Liu
Director, Heart & Stroke, Richard
Lewar Centre of Excellence
Heart & Stroke/Polo Chair
Professor, Departments of
Medicine and Physiology
University of Toronto
Toronto, Ontario



Verna Skanes
Adjunct Professor of Immunology
Division of Basic Medical
Sciences
Memorial University of
Newfoundland
St. John's, Newfoundland
and Labrador



Gregory Downey
Professor
Department of Medicine
University of Toronto
Toronto, Ontario



Jean Marion
Director, Scientific Affairs
Rx&D Health Research Foundation
Ottawa, Ontario



Lori West
Associate Professor
Department of Paediatrics
University of Toronto
Toronto, Ontario

Outstanding Research

ICRH has made significant progress in terms of updating and expanding on the existing ICRH Strategic Plan as well as launching Requests for Applications (RFA) with partners and funding new grants and awards in important areas of research. Developmental initiatives have also received much attention by ICRH staff.

Setting the Research Agenda

Since its inception, ICRH has organized and led various research agenda-setting exercises and welcomed input from stakeholder groups including researchers and partners. In 2002, ICRH published its first Strategic Plan based on this input and included plans for creating a national research agenda for the circulatory and respiratory sciences. Since this time, ICRH has offered research and training programs that align with the goals and objectives outlined in this first Strategic Plan (See APPENDIX II for a summary of grants and awards currently funded by ICRH). Of course, some programs have been launched in response to emerging needs of the country that were not obvious during earlier research agenda-setting exercises. Nevertheless, ICRH continues to rely on the first Strategic Plan as a guiding document for future programmatic offerings. This Strategic Plan will be updated and expanded upon over the next year.

Strategic Initiatives Launched this Fiscal Year

ICRH was a partner on the following RFA programs that were launched in 2004-05 (funding vehicle is denoted in parentheses):

Strategic Initiatives (Grants)

- **Areas of Blood Utilization and Conservation Research (Operating Grants).** This RFA encourages applications for research projects in the general area of blood utilization and conservation and is led by the Canadian Blood Services and CIHR.

- **Genes to Genomic Medicine Initiative: Genomic Medicine and Human Development (Operating Grants).** The purpose of this RFA, led by the CIHR Institute of Genetics is to provide operating grants in support of projects that bridge clinical investigation and more basic scientific research to address an important problem in human development.
- **Models to Investigate the Link Between the Mucosal Immune Response in the Lung and Respiratory Tract and Disease Outcomes (Operating Grants).** This RFA, led by the CIHR Institute of Infection and Immunity, seeks applications on the development of models that investigate the nature and consequence of immune and inflammatory responses in the lung.
- **Reducing Health Disparities and Promoting Equity for Vulnerable Populations (Interdisciplinary Capacity Enhancement Team Grants).** This RFA was launched under the auspices of the CIHR Reducing Health Disparities Initiative, the objective of which is to enhance knowledge transfer, examine the implications of research for policy and practice, and address public concerns about health disparities, and their ethical and legal implications. This RFA is intended to provide support for new or existing interdisciplinary research teams to describe, investigate and ultimately help reduce health disparities.



Curiously, there are many more boys with asthma than girls, yet by the mid-teens, there are more females than males with asthma and this female predominance continues throughout adult life. Through the Gender and Sex Determinants of Circulatory and Respiratory Health: Interdisciplinary Capacity Enhancement Team Grants initiative and with funding from ICRH, the CIHR Institute of Gender and Health and The Lung Association, Dr. Alan Becker, Department of Pediatrics and Child Health, University of Manitoba, and a team of researchers from across the country are studying the biologic and sociologic factors that influence gender-related changes in asthma prevalence.

Outstanding Research

- **Regenerative Medicine and Nanomedicine: Innovative Approaches in Health Research (Team Grants, New Discoveries: High-Risk Seed Grants).** The CIHR Institutes of Neurosciences, Mental Health and Addiction and Genetics are leading this RFA focused on topics such as nanomedicine and technology development, gene therapy, stem cells, tissue engineering, and rehabilitation sciences. The long-term goals of this research program are to develop innovative and socially validated treatment approaches based on the science of regenerative medicine and nanomedicine and to improve the quality of life for afflicted individuals, populations and their families.

Strategic Initiatives (Awards)

- **Personnel Awards in the Area of Transfusion Science (Postdoctoral Fellowship Awards, New Investigator Awards).** Through this program, the Canadian Blood Services and CIHR will provide special recognition and support of postdoctoral fellows and new investigators who are pursuing research in the area of transfusion science.



Dr. Laszlo Bajzar, Department of Pediatrics, University of Alberta, and his team of researchers are studying the connections and regulation between and within the inflammatory, coagulation and fibrinolytic systems. These investigations are expected to lead to the identification of novel therapeutic targets for preventing or treating prothrombotic and proinflammatory conditions that affect hundreds of thousands of North Americans each year. This research program is supported by ICRH, The National Heart, Lung, and Blood Institute of the NIH (USA) and the Heart and Stroke Foundation of Canada. (From left to right: Dr. John Walker, Ms. Brandy Stauffer and Ms. Alan Klompas)

Grants and Awards Funded this Fiscal Year

ICRH launched the following strategic initiatives in the previous fiscal year (2003-04) with funding commencing this fiscal year (funding vehicle is denoted in parentheses):

Grants

- Advancing the Science to Reduce Tobacco Abuse and Nicotine Addiction (Interdisciplinary Capacity Enhancement Team Grants)
- Enhancing Canada-United States Collaboration in Circulatory and Respiratory Health Research: Special Requests for Applications
 - Cellular and Molecular Imaging of the Cardiovascular Pulmonary and Hematopoietic Systems (Operating Grants)
 - Clinical Research Consortium to Improve Resuscitation Outcomes (Operating Grants)
 - Inflammation and Thrombosis (Operating Grants)
- Gender and Sex Determinants of Circulatory and Respiratory Health (Interdisciplinary Capacity Enhancement Team Grants)
- New Frontiers Program (Operating Grants)
- Palliative and End-of-Life Care (New Emerging Team Grants)
- Regenerative Medicine and Nanomedicine: Innovative Approaches in Health Research (New Emerging Team Grants, Pilot Project Grants)
- Rural and Northern Health Research (New Emerging Team Grants)
- Special Initiative in Cystic Fibrosis (CF) Research: In Memory of Michael O'Reilly (Operating Grant, Extension)
- Targeting the Basic Defect in Cystic Fibrosis: Request for Applications to Develop Novel Therapeutic Approaches (also known as BREATHE: Basic Research and Therapy) (Operating Grants)

In addition, ICRH approved the allocation of \$500,000 to fund "Bridging Grants" that would provide support for researchers to retain key personnel and continue their research programs until sustainable funding has been achieved. This decision was made by the Institute Advisory Board (IAB) in response to the high number of circulatory-respiratory grants submitted through the open competition that were rated 4.0 and above, but were not approved for funding.

Outstanding Research

Awards

- Dr. Andres Petrasovits Fellowship Award in Cardiovascular Health Policy Research (Postdoctoral Fellowship Award)

Please refer to APPENDIX III for a listing of applications that have been approved for funding as well as funding partners.

Developmental Initiatives

Some of the research themes identified through research agenda-setting exercises are not ready developmentally to become the focus of a strategic initiative. In some cases, developmental work is required through the offering of workshops and crafting of discussion papers.

New Frontiers Program

The New Frontiers Program (NFP) supports workshops, consensus conferences, opportunities for research collaboration and similar activities for specific research topics and issues. It is expected that this targeted investment will lead to the identification of research priorities and the development of highly successful new research proposals. This past fiscal year, ICRH launched an NFP call for workshop proposals in the following targeted areas:

- **Canadian Critical Care Trials Group (CCCTG).** The CCCTG is an initiative of ICRH to support the re-engineering of the CCCTG to improve data management platforms, enhance research ethics, increase international collaboration and engage in more translational research.
- **Canadian Respiratory Clinical Trials Network.** The vision for a Canadian Respiratory Clinical Trials Network was conceived by the respiratory research community and its development is supported by ICRH, The Lung Association and other health research stakeholders. The goal will be to create a national framework for the integrated implementation of respiratory clinical trials across Canada.

- **Cardiovascular Complications of Diabetes.** The topic of cardiovascular complications of diabetes was jointly identified by ICRH, the Heart and Stroke Foundation of Canada and other health research stakeholders. These partners supported a Canadian consensus conference to define research priorities in this emerging research area.

Tuberculosis Initiative

Under the leadership of ICRH and after crafting a discussion paper, CIHR and its counterpart organization in Mexico, the Institutos Nacionales de Salud, Mexico City, signed a research agreement in the area of tuberculosis (TB) on October 24, 2004. Seven CIHR Institutes, including the Institutes of Circulatory and Respiratory Health, Aboriginal Peoples' Health, Gender and Health, Human Development, Child and Youth Health, Infection and Immunity, and Population and Public Health, have agreed to launch a three-year joint initiative in this area, with a first call for applications expected in the upcoming fiscal year. Through research and training exchanges and joint workshops, researchers working in Canada and Mexico will work together to develop better strategies on the operational issues of TB program management as a way to improve health in afflicted communities and render health access and services more equitable.



Oxytocin has recently been revisited. Traditionally, oxytocin has been considered to be a reproductive hormone. However, it has now become evident that oxytocin participates in the regulation of different behavioural and neuro-mediated functions. With support from ICRH and partners Dr. Jolanta Gutkowska from the Department of Medicine, University of Montreal, and a team of researchers recently uncovered the entire oxytocin system in the human and rat heart and have shown that oxytocin is a naturally-occurring cardiomyogenic factor. (From left to right: Dr. Marius Gangal, Dr. Jolanta Gutkowska, and Dr. Natig Gassanov)

Outstanding Researchers in Innovative Environments

ICRH continuously strives to create venues, opportunities and vehicles for nurturing, recognizing and supporting outstanding mentors and trainees in order to increase capacity in the circulatory and respiratory sciences.

National Research Forum for Young Investigators (YI) in Circulatory and Respiratory Health

The annual YI Forum series is a major training and educational initiative of ICRH and its many partners, and, for the initial three years, is co-organized with the Institute of Cardiovascular Sciences at the University of Manitoba. Trainees and young investigators (e.g., junior faculty, post-doctoral fellows, undergraduate and graduate students, clinician trainees) are the focus of this meeting. Each year, trainees make scientific presentations, learn about the latest circulatory and respiratory research activities, and interact and share ideas with many colleagues and mentors in a supportive and nurturing environment. Senior faculty assist in moderation and facilitation of scientific sessions, and contribute to workshops on a diverse range of topics. Past and planned YI Forums include:

- 1st Annual YI Forum, May 6 to 8, 2004, Winnipeg, Manitoba;
- 2nd Annual YI Forum, April 28 to May 1, 2005, Winnipeg, Manitoba; and
- 3rd Annual YI Forum, May 4 to 7, 2006, Winnipeg, Manitoba.



Ms. Monica Parry, a FUTURE Program Trainee from the University of Toronto, is seen here preparing to participate in the Poster and Mentoring Competition at the 2005 YI Forum.

PREPARE Project

This project was initiated this past fiscal year in response to requests received by the Institute Advisory Board (IAB) from partner organizations and agencies regarding partnership opportunities in the area of student and trainee development. In an effort to assure that the IAB would make an informed and evidence-based decision, ICRH staff initiated the PREPARE (*Preparing People and Rewarding Excellence*) project to examine the state of funding for circulatory and respiratory health research personnel awards as well as funding needs and gaps. This analysis involved examining the application pressure for CIHR's personnel awards programs and actual personnel support from 1999 onward with focus on such dimensions as geography, gender, research area, theme, discipline, program type, funding, duration, etc. The results of this analysis will be collated and distributed to partners over the coming months.

CIHR Clinical Research Initiative

The CIHR Clinical Research Initiative (CRI) has made great progress this past fiscal year under the leadership of Dr. John Cairns (Project Leader), Ms. Janice Miller (Project Manager), and Dr. Annie Prud'homme G n reux (Project Officer), and with guidance from Dr. Bruce McManus, Scientific Director Champion. The overarching vision of the CRI is to position Canada as a world leader in clinical research by 2010. This past year, the following milestones were achieved:

- **Funding analysis of grant and award programs in the area of clinical research.** This work will continue to inform the decision-making process regarding programs and initiatives that will be required over the coming years to address the clinical research needs and gaps in Canada.
- **Workshops and consultations with stakeholder groups.** Two major workshops were held to further define the national need for clinical research infrastructure and establish a process for addressing this need (i.e., CIHR/CFI Clinical Research Centres/ Networks Workshop, November 1, 2004, Toronto, Ontario; CIHR Clinical Research Infrastructure Consultation, May 27, 2005, Toronto, Ontario).

Outstanding Researchers in Innovative Environments

CRI staff met with many representatives from partner organizations and agencies to discuss the need for a national, coordinated effort for improving Canada's clinical research capacity and effectiveness. A partnership with the Canada Foundation for Innovation is expected to lead to a major investment in infrastructure for clinical research, enhancing Canada's contributions and its opportunities for international leadership.

- **Requests for Applications (RFA).** Three major RFAs were developed and launched this past fiscal year. These included the "Undergraduate Health Professional Clinical Research Immersion Award," "Short-term Clinician Investigator Grant," and "Randomized Controlled Trials (RCT) – Mentoring Program," offered through CIHR RCT.
- **Increased funding for clinician-researchers.** The CRI funded an additional 52 award applications that were originally submitted through the open competition.
- **Communications efforts.** A website dedicated to the CRI has been developed, with updates on activities, consultations, progress and plans posted on a regular basis.

Plans are underway to develop and launch a suite of RFAs with partner organizations and agencies focused on infrastructure, personnel support and networks over the coming years.

Genetic and Environmental Interactions in Circulatory and Respiratory Disease and Health

Since the first year of strategic research initiatives led by ICRH, "gene and environment interactions in circulatory and respiratory disease and health" has been a hallmark theme that ICRH continues to support and develop. By encouraging more research and investing strategically in this area, ICRH hopes to contribute to the development of improved and effective prevention strategies and treatment protocols that mitigate harmful gene and environment interactions.

Currently, ICRH and partners are supporting seven Interdisciplinary Health Research Teams (IHRT), New Emerging Teams (NET) and Interdisciplinary Capacity Enhancement teams (ICE) that are all working to improve our understanding of the complex interactions that exist between the environment and genes, resulting in health and disease. These programs include:

- **Dr. Sonia Anand**, McMaster University, *Sex and gender determinants of acute coronary syndromes and the metabolic syndrome*;
- **Dr. Allan Becker**, University of Manitoba, *Origins of asthma in childhood: the role of gene environment interactions*;
- **Dr. Pavel Hamet**, Centre Hospital de l'Université de Montréal (CHUM), *CardioGEN: a consortium to explore the gene-environment paradigm of major cardiovascular disorders in human and animal models*;
- **Dr. Peter Liu**, University of Toronto, *An integrated Canadian strategy in heart failure - CHFNET: a research network on gene-environment interactions in heart failure: Molecules to populations; peptides to patients*;
- **Dr. Peter Paré**, University of British Columbia, *Inflammatory gene haplotypes and susceptibility to cardiac, vascular and pulmonary disease*;
- **Dr. Louis Pérusse**, Université Laval, *Gene-environment interactions in obesity: integration of genetic information into the prevention and treatment of obesity*; and
- **Dr. Louise Pilote**, McGill University, *Gender and sex determinants of cardiovascular disease: from bench to beyond*.

Each year, ICRH sponsors a "how to" workshop focused on the latest approaches and methodologies for examining complex gene and environment interactions, held in conjunction with the annual Canadian Cardiovascular Congress. Leaders of gene-environment research programs are invited to share knowledge and best practices at this workshop as well as highlight the tools, techniques, processes and approaches they have used successfully to study these interactions.

Outstanding Researchers in Innovative Environments

Global and International Health

ICRH continues to contribute to the global health research effort through the sponsorship of and in-kind contribution to international workshops, conferences and training opportunities.

International Workshops and Conferences

- **5th International Heart Health Conference, June 13 to 20, 2004, Milan, Italy.** CIHR was a major co-sponsor of this Conference, the theme of which was "Positioning Technology to Serve Global Heart Health." CIHR and ICRH contributed to the organization of five parallel scientific sessions featuring topics such as "Gene-Environment Interactions," "Technology Enabled Knowledge Translation: Drawing from Best Practices," "From Discovery to Delivery," and "Effective Global Communication of Health Information." At the close of the Conference, a consensus document entitled, "Milan Declaration: Positioning Technology to Serve Global Heart Health" was presented, with contributions made by ICRH staff.
- **Building Capacity for Cardiovascular Health Promotion and Chronic Disease Prevention and Control in Sub-Saharan Africa, October 16 to 30, 2004, Accra, Ghana.** This training program is offered by the Centres for Disease Control and Prevention, Atlanta, Georgia, the objective of which is to increase capacity in cardiovascular epidemiology in Sub-Saharan Africa. ICRH staff contributed to the development of the curriculum.
- **11th Canadian Conference on International Health, "The Politics of Health: Whose Reality Counts?", October 24 to 27, 2004, Ottawa, Ontario.** This conference was organized by the Canadian Society for International Health, with contributions made by ICRH staff on the planning committee.
- **Global Forum 8: Health Research to Achieve the Millennium Development Goals, November 16 to 20, 2004, Mexico City, Mexico.** This Forum was organized by the Global Forum for Health Research, Geneva, and was held in collaboration with the Ministry of Health, Mexico, and in conjunction

with the Ministerial Summit on Health Research.

- **6th International Conference on Preventive Cardiology, May 21 to 25, 2005, Foz do Iguaçu, Brazil.** The theme of this scientific conference is "Protecting the Heart of Global Development", with special attention to primary and secondary prevention. ICRH is planning a special symposium on "Gene Environment Interactions in Prevention and Control of Cardiovascular Diseases" with the three ICRH/Heart and Stroke Foundation of Canada-funded gene-environment interdisciplinary health research teams contributing to the session.

International Training Opportunities: New Canada Hope Scholarship Program

In partnership with Aventis Pharma Inc., a member of the sanofi-aventis Group, CIHR founded a scholarship program to further develop international collaborative efforts among researchers. Through this scholarship program, launched in 2004, promising scientists and clinicians from low- and middle income countries, as identified by the Canadian International Development Agency and the United Nations, will be mentored by prominent Canadian researchers and exposed to some of the best science, laboratories and training environments in Canada. ICRH staff contributed to the development of this program.

ICRH Distinguished Lecture and Prize in the Cardiovascular Sciences

Each year, this award is made to an outstanding researcher from across the spectrum of basic, clinical, health services and policy, and population health themes, for his or her contributions to the advancement of cardiovascular sciences. The 2005 ICRH Distinguished Lecture and Prize in Cardiovascular Sciences has been awarded to Dr. Peter Carmeliet, Professor, Adjunct Director, Center for Transgene Technology & Gene Therapy, Flanders Interuniversity Institute for Biotechnology, University of Leuven, Leuven, Belgium.

Translating Health Research into Action

ICRH is committed to assuring that new knowledge created through ICRH investments in research is translated, transferred and applied in ways that benefit all Canadians, whether it be through changes in health systems, services, delivery models, clinical practice, behaviour and/or products.

Canadian Chair in Hypertension Prevention and Control

Despite the large pool of knowledge and information regarding best practices for hypertension prevention and control, there are few mechanisms in place to ensure implementation of these best practices. As a result, the Canadian Hypertension Society/Canadian Coalition for High Blood Pressure Prevention and Control, Aventis Pharma Inc., and CIHR/Rx&D came together to develop a national research chair in the area of high blood pressure prevention and control. The Chair will focus on improving the awareness, prevention and control of hypertension through interactions with Federal and Provincial health care agencies, health care-providers and the community at large. This opportunity was launched in early 2005 with assistance and contributions made by ICRH staff.

Impact Analysis

This past fiscal year, the ICRH Institute Advisory Board Matrix Subcommittee developed a framework for assessing the impact of ICRH-funded grants and awards. The analysis involved gathering information from researchers and trainees regarding funding inputs, research outputs and knowledge translation-related outcomes associated with their ICRH-funded grant or award. This analysis revealed significant advancements in the area of knowledge translation. ICRH staff will continue to track, monitor and document the impact of ICRH-funded grants and awards over the coming years.

Public Fora

ICRH supports public fora to inform and educate the public about research advances and the ways in which Canadians can improve their health. For example, the ICRH co-sponsored the 4th Annual Public Heart Health Forum, on June 12, 2004, Winnipeg, where leading national and international researchers delivered presentations on such topics as hypertension, prevention of heart disease, herbal medicines and potential of stem cells for heart health. Likewise, ICRH is sponsoring and contributing to the development and creation of a "Food for Health" traveling exhibit that will be showcased across Canada beginning in March 2006. Through these venues, ICRH hopes to influence health-related decisions of Canadians.



Dr. Barbara Riley from the University of Waterloo and recipient of the Dr. Andres Petrasovits Fellowship Award in Cardiovascular Health Policy Research is seen here mapping out an approach for enhancing translation of knowledge into public health policy in the area of heart health.

Effective Partnerships and Public Engagement

ICRH is committed to the creation of a national research strategy and agenda for the circulatory and respiratory sciences through open dialogue, cooperation and collaboration with its many partners. This effort, coupled with ICRH's growing connection with and engagement of the general public in national discussions regarding the importance of health research to the health of Canadians, will lead to a more effective and efficient circulatory and respiratory health research enterprise.

Partners Forum Series

Each year, ICRH hosts a Partners Forum (PF) wherein representatives from a diverse mix of stakeholder groups come together to discuss topics of interest and relevance to the entire circulatory and respiratory research community in Canada. PF IV, held from April 25 to 26, 2004, Vancouver, British Columbia, was attended by more than 40 individuals representing 30 stakeholders, including health care providers, non-governmental organizations and federal government organizations. The Forum focused on practical partnership tools for knowledge translation (KT). The specific objectives were to:

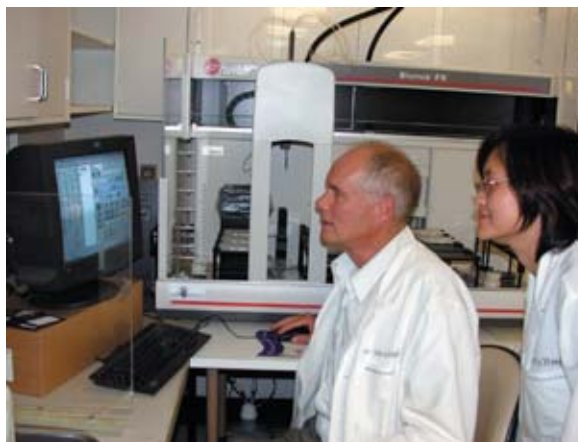
- contribute to understanding and awareness of KT by taking stock of partner organization directions, activities and experiences;
- brainstorm opportunities for mutual support with respect to extending public awareness and perceptions;
- review and provide feedback on a draft KT casebook for research producers, users, funders and other CIHR institutes;
- review and customize the "Assessing Strategic Partnership" tool developed by the UK Nuffield Institute for Health; and
- disseminate the Forum report and other documents based on current research related to KT in Canada.

The objective of the ICEBERGS (Interdisciplinary Capacity Enhancement: Bridging Excellence in Respiratory disease and Gender Studies) Team is to enhance the capacity in chronic obstructive pulmonary disease (COPD) research by developing a sex and gender sensitive research methodology. As an interdisciplinary team, ICEBERGS researchers focus on how and why men and women experience COPD differently. It is anticipated that findings from ICEBERGS research will affect medical practices and health policy decisions regarding COPD in Canada (and elsewhere). (From left to right: Dr. Peter Paré and Ms. Shelley Dai)

One of the major themes of the Forum was the need for a national framework for circulatory and respiratory health in Canada that encompasses a strategy for KT. In response to the need for more discussions about the merits, value and need for pursuing the development of this framework, ICRH will host the National Circulatory and Respiratory Research Strategy Planning Meeting on April 27, 2005 in Winnipeg, Manitoba (please see next section for more details).

National Circulatory and Respiratory Research Strategy Planning Meeting

On April 27, 2005, ICRH will host a Strategy Planning Meeting of key stakeholders in health research to discuss a draft proposal, prepared by ICRH, for a "National Circulatory and Respiratory Research Strategy". The purpose of this meeting will be to gain preliminary feedback and guidance on the proposed national strategy concept, including feasibility and future actions or development of alternative approaches. Stakeholders and thought leaders from 17 organizations with a commitment to circulatory and respiratory health research will attend this meeting. Following this Strategy Planning Meeting, ICRH will work with stakeholders over the coming year to further define what this national framework could look like and how stakeholders can work together to achieve the vision put forth in the national framework.



Effective Partnerships and Public Engagement

Exemplary Partnerships

This past year, ICRH had the opportunity to work with new partner organizations and agencies to develop unique funding opportunities that benefit the Canadian circulatory and respiratory community.

Defence Research and Development Canada

A unique partnership among ICRH, Defence Research and Development Canada (DRDC), the Heart and Stroke Foundation of Canada, the National Heart, Lung, and Blood Institute of the National Institutes of Health (USA) and the United States Army Medical Research and Materiel Command (USMAMRMC) will support research in the area of cardio-pulmonary resuscitation due to trauma and/or cardiac arrest. This partnership is unique because it involves international, non-governmental and governmental organizations and agencies, all working together to support a research area of shared interest, and, for the first time, brings together CIHR and DRDC in a formal partnership arrangement.

DRDC, an agency of the Department of National Defence, is comprised of five centres, one of which focuses on defence research and development in human protection and performance in extreme environments, human-systems integration, command effectiveness and behaviour, simulation and modelling and military operational medicine. The latter focus aligns with that of the Clinical Research Consortium to Improve Resuscitation Outcomes initiative that was launched in 2002. DRDC's participation in this partnership will ensure that researchers have adequate support to study the role of hypertonic versus isotonic saline solution, an agent that expands plasma volume to the same extent as a ten-times greater volume of isotonic saline. The current standard of care for combat casualties involves infusion of large volumes of isotonic saline. Although initially life-saving, such aggressive resuscitation may worsen longer-term patient outcome by amplifying adverse inflammatory complications. In contrast, treatment with hypertonic saline immediately restores blood pressure, and in animal studies reduces excessive inflammation that usually leads to multi-organ dysfunction and death. The first clinical trials are expected to begin in the fall of 2005.

Institutos Nacionales de Salud, Mexico City

As mentioned previously, ICRH is leading the development of a joint research program in the area of tuberculosis (TB) in partnership with the Institutos Nacionales de Salud, Mexico City. This partnership offers researchers from Mexico and Canada the opportunity to work together to further our understanding of TB across the research themes, from molecules to populations.

Communications Efforts

ICRH continues to highlight the important work of ICRH- and CIHR-funded researchers and trainees and the positive impacts that health research has on the health of Canadians in the media. As well, ICRH staff delivered presentations and messages relating to circulatory and respiratory research activity nationally and internationally in the context of scientific, professional and planning meetings and/or conferences (See Table 1 for a list of talks and visits made by the Scientific Director and Assistant Director).



With support from ICRH and leadership from the CIHR Institute of Genetics, RMEthnet seeks to ensure that societal values are protected, stakeholder interests are appropriately considered, and the Canadian public is informed and engaged in decision-making processes as relates to the field of regenerative medicine. This research program, under the direction of Dr. Abdallah Daar from the Joint Centre for Bioethics, University of Toronto, aims to establish Canada as a world leader in scholarship addressing the ethical, economic, environmental, legal and social issues that are relevant to the use of regenerative medicine technologies in order to maximize its benefits and minimize risks in medical research and practice. (From left to right: Ms. Brenda Knowles, Dr. Abdallah Daar, and Mr. Andrew Taylor)

Effective Partnerships and Public Engagement

World Asthma and Hypertension Days

On May 3, 2005, CIHR, ICRH and other Institutes will celebrate World Asthma Day by highlighting investments into asthma research and the important work of asthma researchers on the CIHR web-site. World Hypertension Day will be celebrated later on in May, on May 14, led by the World Hypertension League, the event's major sponsoring organization. National hypertension societies around the world will promote awareness of hypertension in their respective countries. ICRH in partnership with the Heart and Stroke Foundation of Canada, Canadian Hypertension Society, Québec Hypertension Society, Public Health Agency of Canada and Blood Pressure Canada is in the process of distributing approximately 500,000 brochures and 30,000 posters across the country through physicians' offices, with help from major pharmaceutical companies and a blood pressure device manufacturer. As well, the first World Hypertension Day Blood Pressure Measurement Clinic on Parliament Hill is being planned for May 10, 2005.



With support from ICRH and partners, Drs. Patrick Parfrey and Brendan Barrett, Faculty of Medicine, Memorial University of Newfoundland, are co-leading a multidisciplinary team of researchers who are working in area of chronic kidney disease. The CanPREVENT study proposes to determine if, compared to usual care, a nurse coordinator supported by a Nephrologist and running a multiple risk factor intervention and disease management clinic will reduce, or delay the onset of advanced kidney disease. The study will also examine the effect on health care resource use, costs and quality of life issues. This study will provide insight into such things as how care should be organized and delivered for those with this particular set of chronic diseases in Canada. (From left to right: Ms. Janet Morgan and Ms. Madeline Wilson, and study participant)

Resuscitation Outcomes Consortium

The Resuscitation Outcomes Consortium (ROC) was created to examine the effectiveness of treatments for cardiac arrest or major injury and trauma. While clinical trial protocols are still under development, activities are underway to convey the goals of ROC, including the launch of a public website and design of local web-sites for each of the ten local sites in Canada and the USA. Canadian researchers lead regional clinical centres that will include populations from Ottawa, Toronto, and much of Ontario, as well as Vancouver and the surrounding area. Already, the ROC External Relations Committee is developing press announcements and brochures designed for the public that explain the nature of the proposed research, potential benefits of the study, and what patients and families can expect if they are enrolled in one of the ROC clinical trials. It is anticipated that activities of community consultation and public disclosure will increase awareness about the value and importance of clinical trials in Canada and the USA.

Media Coverage

CIHR Communications staff have been instrumental in ensuring that research findings stemming from ICRH- and CIHR-funded grants and awards in the area of circulatory and respiratory sciences are promoted and highlighted in the media. The media represent one venue wherein the value and importance of health research to the health of Canadians can be communicated to the general public and politicians. This past fiscal year, ICRH was the second-most-profiled Institute with respect to media coverage. Some of the media articles that recognized ICRH as a funder of important research included:

- "Tax-deductible gym fees floated," *Edmonton Journal*, Edmonton, Alberta, January 25, 2005;
- "Ottawa researchers get blood flowing," *Ottawa Sun*, Ottawa, Ontario, December 23, 2004; and
- "UBC scientists solve brain-blood mystery: Findings could lead to new stroke, migraine drugs," *Vancouver Sun*, Vancouver, British Columbia, September 9, 2004.

Organizational Excellence

Organizational excellence is at the core of everything that ICRH does. ICRH has made great progress in this area and continuously works towards developing transparent processes and venues for strategic planning, performance monitoring and evaluation, and improving the effectiveness and efficiency of ICRH.

Strategic Planning Consultation

ICRH hosted a Strategic Planning Consultation from November 21 to 23, 2004, in Montréal, Québec, for the purpose of initiating the development of the second ICRH Strategic Plan for 2005-2008. The second Strategic Plan will expand on the first ICRH Strategic Plan, "Reaching Over the Horizon: A Strategic Plan for Circulatory and Respiratory Health Research, 2002." This consultation exercise consisted of two parts: a stakeholder consultation involving 37 representative researchers and the ICRH Institute Advisory Board (IAB), followed by an IAB meeting to discuss next steps. More specifically, the objectives of this consultation meeting were to:

- review the 2002 Strategic Plan and assess what had been accomplished to date;
- explore the current state of research directions, trends, gaps and opportunities through a review of perspectives and contextual documents;
- explore opportunities for synergy with other Institutes and partner organizations;
- consult with leaders within the ICRH community on future priorities and directions; and
- develop recommendations for submission to the ICRH IAB.

Participants identified three major areas that required further investigation and development before a Strategic Plan could be developed. These included:

- more information about what ICRH has funded as well the impact of this funding;
- strategies, mechanisms and approaches to address systems and operational issues; and
- a national strategy for the circulatory and respiratory sciences that would serve as a framework for the Strategic Plan.

The following IAB Subcommittees were convened to address these areas:

- **ICRH Matrix Subcommittee.** This Subcommittee was charged with conducting an impact analysis of ICRH-funded grants and awards up to the 2004-05 fiscal year. A survey tool was developed for gathering information about funding inputs, research outputs, KT products, and KT-related outcomes. This information will assist ICRH staff and IAB members with the identification of research and training gaps, and in future strategic planning exercises.
- **ICRH Strategic Planning Subcommittee on Key Issues.** Members of this Subcommittee were charged with identifying strategies, mechanisms and approaches for addressing systems and operational issues.
- **ICRH Strategic Planning Subcommittee on National Strategy.** The objective of this Subcommittee was to further explore the merits, value, benefits and risks associated with pursuing a national strategy framework for the circulatory and respiratory sciences.

Synthesis reports from each of these Subcommittees will be finalized shortly. The second ICRH Strategic Plan will reflect the work of and input received from the Subcommittees.



Dr. Maud Champagne-Lavau, a Focus on Stroke trainee, from the Institut universitaire de gériatrie de Montréal, is studying impairments in verbal communication in patients who have sustained a vascular accident to the right hemisphere of their brain. The aim of this research is to provide new indications for the evaluation and possible rehabilitation of these impairments after a right hemisphere stroke. Dr. Champagne-Lavau (right) is seen here explaining the use of a divided visual field paradigm to a study participant (left) and student (Middle: Ms. Catherine Derome).

Organizational Excellence

Performance Measurement and Evaluation

Performance measurement and evaluation is a core activity within ICRH and involves continuously monitoring such things as productivity, progress, impact, efficiency and effectiveness of the Institute, as well as the research and training programs that it supports.

Evaluation of ICRH-Funded Programs

ICRH has created various mechanisms for evaluating the performance and progress of ICRH-funded grants and awards. These include:

- **Gene-Environment Reporting and Advisory Session (RAS), October 27, 2004, Calgary, Alberta.** Each year, ICRH and the Heart and Stroke Foundation of Canada (HSFC) plan and organize an RAS session wherein the three ICRH/HSFC-funded gene-environment Interdisciplinary Health Research Teams (IHRTs) communicate their research progress to funders and a panel of experts. Members of the 2004 panel included Drs. Jay Cross, Paula Gregory, Simon Pimstone and Stephen Young. This second RAS session was held in October 2004, and, once again, was an excellent venue where IHRT leaders could discuss their progress with the panel of experts and gain added insights into the strengths and weaknesses of their program as well as possible new directions.
- **Strategic Training Initiatives in Health Research (STIHR) Progress Review.** This past year, CIHR led a review of progress made by STIHRs where STIHR leaders were asked to provide information on such things as research outputs, program architecture and management and implementation challenges. ICRH contributed to the review process by evaluating and offering feedback in areas such as achievement of program objectives as well as overarching objectives of the STIHR program. This information was collated and forwarded to STIHR leaders for reflection and action.

- **Impact Analysis Project.** The objective of this project is to gather information about the impact of ICRH-funded grants and awards and more specifically, funding inputs, research outputs, KT-related outputs and KT-related outcomes. As this research produces more tangible and measurable results, information regarding patient and population outcomes will also become very important to monitor and document. This project was championed by the ICRH Matrix Subcommittee previously mentioned.

Institute Evaluation

This past year, ICRH staff contributed to the development of a process for the mid-term evaluation of CIHR Institutes through the Institute Round Table. EKOS Research Associates Inc. has been contracted by CIHR to implement the evaluation framework involving 15 performance indicators under the guidance of a CIHR Steering Committee. The evaluation process involves conducting interviews of ICRH staff and representatives from stakeholder groups and examining the activities, outputs and outcomes of ICRH before the end of the first funding cycle (i.e., 2005). The goals of the evaluation process are to provide Institutes with feedback on their overall progress and effectiveness, and to provide input into the Five-Year Review of Institutes required by CIHR's Governing Council and into the overall CIHR evaluation planned for 2005-2006.



In recent years, more women than men are dying as a result of coronary disease. This difference is the focus of a CIHR-funded research program that is being led by Dr. Paul Armstrong, Department of Medicine, University of Alberta. These researchers are examining the extent to which gender impacts access, treatment and outcomes of cardiovascular care. Dr. Michelle Graham, an interventional cardiologist, is featured in this photo.

Organizational Excellence

Ethics and Research

ICRH is committed to supporting “research in ethics” and contributing to national discussions relating to “ethics in research.” This past fiscal year, ICRH approved various ethics-related grant applications that were submitted through strategic RFA programs for funding, most notably three New Emerging Team (NET) grants in the area of palliative and end-of-life care (See APPENDIX III for a listing of grants and awards approved for funding in 2004-05). Last fiscal year, ICRH also funded an NFP that was led by Dr. Christian Deschepper, Institut de recherches cliniques de Montréal, in the area of operational and ethical issues associated with banking human biological materials. This initiative allowed for the networking of researchers, bioethicists and legal experts, all having expertise in local bio-banking initiatives. This group continues to work towards the creation and operation of a National Registry.

In addition to supporting “research in ethics”, ICRH has contributed to discussions on “ethics in research”. Dr. Verna Skanes, Ethics designate on the ICRH Institute Advisory Board (IAB), has represented ICRH at various meetings and on Subcommittees with an ethics focus. For example, she participated in the March 2004 meeting of the IAB Ethics Designates Group (IABED) in which a Terms of Reference and draft plan for pan-Institute ethics-related activities were drafted. She was a member of a Subcommittee chaired by Dr. Daryl Pullman, member of the CIHR Standing Committee on Ethics (SCE), which was charged with reviewing the recommendations of the National Placebo Working Committee on the Appropriate Use of Placebos in Clinical Trials in Canada and providing advice to the SCE on possible action and response. Dr. Skanes was also a workshop co-leader with Ms. Patricia Kosseim of the Ethics in Science Workshop at the 2004 YI Forum, held from May 6 to 8, 2004, Winnipeg, Manitoba.

Knowledge Management

One of the biggest challenges confronting ICRH staff is ensuring that organizational knowledge and knowledge created through research activity is monitored, evaluated and translated within a broader knowledge management framework. CIHR corporate staff and the Institute Advisory Board (IAB) have all been instrumental in ensuring that this knowledge is managed effectively and efficiently. Please see page 5 for a listing of IAB members and CIHR staff who have contributed to ICRH activities, programs and initiatives. Their efforts and commitment to fulfilling ICRH’s mandate are key to the success of ICRH.

We also wish to thank out-going IAB members, Drs. Antoine Hakim, Paul O’Byrne and Grant Pierce, for their contributions and welcome the new IAB members who joined the Board this past fiscal year, Drs. Jean Marion, Benjamin Rusak and Lori West.

In an effort to ensure that CIHR corporate staff and ICRH partners are kept abreast of ICRH activities, programs, and future directions, ICRH hosted an Institute Day on October 5, 2004 in Ottawa, Ontario. This interactive session featured blood glucose and cholesterol testing as well as informative presentations from the Scientific Director and an ICRH-funded researcher, Dr. Ian Stiell, University of Ottawa. CIHR staff and partners had many opportunities to mingle with ICRH staff and learn more about the activities of the Institute.

ICRH Transition

During this past fiscal year, it became apparent that ICRH would undergo transition to a new Scientific Director (SD), and most likely to a new institution and Institute staff beginning in the fall of 2005. Plans are underway to ensure that the transition is seamless, with the Institute Transition Team taking a lead on operational, legal and logistical matters associated with the transition. The Institute Advisory Board and CIHR corporate staff will assist with the transition and ensure that corporate memory is maintained during the transition phase. As well, the current SD and ICRH staff will overlap with the new SD and incoming ICRH staff to facilitate a smooth transition.

TABLE I. Exemplary Talks/Visits Made by the Scientific Director* and Assistant Director#

"Careers: From Dusk and Darkness to a Delightful Dawn," James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research Lunch and Learn Series, Vancouver, British Columbia, April 1, 2004*

RFA Funding Meeting, National Institutes of Health, Bethesda, Maryland, April 4-6, 2004*

Member, Task Force Panel, ISHLT Consensus Meeting of Cardiac Rejection, San Francisco, California, April 20-23, 2004*

World Hypertension League (WHL) Executive Board Meeting, Prague, Czech Republic, April 23, 2004#

Chair, Opening Session, Czech Hypertension Society Annual Conference, Prague, Czech Republic, April 24, 2004#

Welcome Address, Partners Forum IV, Vancouver, British Columbia, April 25-26, 2004*

"Technology Enabled Knowledge Translation", Grand Rounds, Division of Cardiology, San Raffaele Hospital, University of Milan, Milan, Italy, April 27, 2004#

"New Data Integration Strategies for Heart Research," International Academy of Cardiovascular Sciences, Mexico City, Mexico, April 30, 2004*

"Vascular Disease in Allografts," International Society for Heart Research (ISHR) North American Annual Meeting, Cancun, Mexico, May 1-5, 2004*

Symposium Moderator, Inflammation and Injury in Atherosclerosis, ISHR North American Annual Meeting, Cancun, Mexico, May 1-5, 2004*

Welcome Address, Inaugural National Research Forum for Young Investigators in Circulatory and Respiratory Health, Winnipeg, Manitoba, May 6-9, 2004*

Workshop on Inflammation & Immunity of Dilated Cardiomyopathy, NHLBI, Bethesda, Maryland, May 21-22, 2004*

"Health Research in Canada: A Little-known Past, an Amazing Present, an Essential Future," James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research Lunch and Learn Series, Vancouver, British Columbia, May 27, 2004*

Scientific Program Committee Meeting for Canadian Cardiovascular Congress, Toronto, Ontario, May 28, 2004*

"ICRH and Canadian Cardiovascular Science," International Vascular Biology Meeting, Toronto, Ontario, June 1-5, 2004*



Drs. Jean Bourbeau and Francois Maltais from the Department of Medicine, McGill University and Université Laval respectively, are conducting a CIHR-funded multi-center, randomized clinical trial that compares the effectiveness of home-based versus hospital-based outpatient pulmonary rehabilitation in patients with chronic obstructive pulmonary disease (COPD). This trial aims to evaluate the benefits of an innovative self-monitored, home-based rehabilitation program in ambulatory COPD patients. Ms. Anne Hatzoglou, a physiotherapist, is seen here training patients at the Montreal Chest Institute, one of the centers participating in the trial.

Co-Chair, Plenary Session, Gene-Environment Interaction: Searching for the Causes of Congestive Heart Failure, 5th International Heart Health Conference, Milan, Italy, June 15, 2004*

Co-Chair, Plenary Session, Gene-Environment Interaction: Searching for the Causes of Myocardial Infarction, 5th International Heart Health Conference, Milan, Italy, June 15, 2004*

Co-Chair, Organizing Committee, 5th International Heart Health Conference, Milan, Italy, June 12-16, 2004#

"Benefits of Professional Education for Cardiovascular Prevention and Control: 'The Healthy Heart Kit'", "Technology-Enabled Knowledge Creation to Knowledge Translation", and "Effective Global Communication of Health Information", 5th International Heart Health Conference, Milan, Italy, June 12-16, 2004#

"Epidemiology of Cardiovascular Diseases in the Elderly", Invited Lecture, Faculty of Medicine, University of Naples, Naples, Italy, June 18, 2004#

CIHR and Pfizer Canada meeting regarding Clinical Trials Training Program – Certification Level, Montréal, Québec, July 7-8, 2004#

Meeting with Keystone Research Centre regarding enhancing clinical trials, including training programs, Mount Sinai Hospital, Toronto, Ontario, July 9, 2004#

Member, Scientific Advisory Board, International Academy of Cardiology and the 4th World Congress on Heart Disease, Vancouver, British Columbia, July 17-20, 2004*

Participatory Action Research Workshop, University of British Columbia, Vancouver, British Columbia, July 23, 2004#

"Principles and Practices in the Preparation of a Health Research Grant Application: What to Do When Your Grant Is Not Funded," James Hogg iCAPTURE Centre for Cardiovascular and Pulmonary Research Lunch and Learn Series, Vancouver, British Columbia, July 29, 2004*

"Lessons from Expression Profiling and Biological Validation in Coxsackievirus Infections," XVIII World Congress of the International Society for Heart Research, Brisbane, Australia, August 7-11, 2004*

Member, Scientific Committee, XVIII World Congress of the International Society for Heart Research, Brisbane, Australia, August 7-11, 2004*

Co-Chair, Student Summer Research Day, St. Paul's Hospital, Vancouver, British Columbia, August 19, 2004*

"PURE" Canada Research Planning Meeting, Population Health Centre, McMaster University, Hamilton, Ontario, August 19-20, 2004#

Canada On the Move, National Consultation Meeting, CIHR Institute of Nutrition, Metabolism and Diabetes, Toronto, Ontario, September 1-2, 2004#

"Better Biomarkers in Transplantation: the Goal, the Team, the Approach," Cardiology Rounds, Providence Health Care, Vancouver, British Columbia, September 9, 2004*

"Knowledge Creation and Transfer to Address the Challenges of Heart Failure," Plenary Speech, 8th Annual Scientific Meeting of the Heart Failure Society of America, Toronto, Ontario, September 13, 2004*

"The New Biology of Transplantation," Nephrology Rounds, Vancouver Hospital and Health Sciences Centre, Vancouver, British Columbia, September 17, 2004*

"The Road Ahead: Horizons of Research at iCAPTURE," Medical Class 1968 Reunion, University of British Columbia, Vancouver, British Columbia, September 17, 2004*

Milan Declaration on Heart Health, Writing Group Meeting, Dalway, Prince Edward Island, September 28-30, 2004#

"Sharing the Wealth: Toward Optimal Knowledge Delivery in the Cardiovascular Sciences," CIHR Scientific Directors' Meeting, Ottawa, Ontario, October 6, 2004*

TABLE I. Exemplary Talks/Visits Made By the Scientific Director* and Assistant Director#

"iCAPTURE – Our Science, Our Educational Programs," QLT Lecture, Vancouver, British Columbia, October 20, 2004*

Challenges about Conflict of Interest, Industry Workshop, Vancouver General Hospital, Vancouver, British Columbia, October 21, 2004*

Co-Organizer, Scientific Sessions, Canadian Cardiovascular Congress, Calgary, Alberta, October 24-27, 2004*

"The Strategic Training Initiative in Health Research (STIHR): Opportunities Abound," Trainee Day, Canadian Cardiovascular Congress, Calgary, Alberta, October 23, 2004*

"Sharing the Wealth: Toward Optimal Knowledge Delivery in the Cardiovascular Sciences," State-of-the-Art Lecture, Canadian Cardiovascular Congress, Calgary, Alberta, October 25, 2004*

Welcome Address, ICRH Distinguished Lecture and Prize, Canadian Cardiovascular Congress, Calgary, Alberta, October 26, 2004*

"Genetic and Environmental Interactions: Implications for Cardiovascular Diseases," A Mini-Symposium by IHRT Investigators, Canadian Cardiovascular Congress, Calgary, Alberta, October 26, 2004*

FUTURE Program Luncheon, Canadian Cardiovascular Congress, Calgary, Alberta, October 27, 2004*

Participant, CIHR/CFI Clinical Research Centres/Networks Workshop, Toronto, Ontario, November 1, 2004*

"Better Biomarkers in Transplantation: The Goal, The Team, The Approach," Cardiology Rounds, Providence Health Care, St. Paul's Hospital, Vancouver, British Columbia, November 4, 2004*

Surveillance Workshop, National Consultation, Public Health Agency of Canada, Elizabeth Bruyère Research Institute, Ottawa, Ontario, November 5-6, 2004*

Global Forum 8 and Ministerial Summit, Mexico City, Mexico, November 11-19, 2004#

Presentation to Canadian Lung Association Board of Directors, Ottawa, Ontario, November 13, 2004*

"Myocarditis – A Model of Myocardial Injury and Repair," Cardiovascular Pathology Symposium, American College of Veterinary Pathologists and American Society for Veterinary Clinical Pathology Annual Meetings, Orlando, Florida, November 16, 2004*

"Horizons in the Biology and Surveillance of Heart Transplant Patients," Plenary Lecture, World Wide Biobank Summit II, IBM Healthcare and Life Sciences, Tarrytown, New York, November 15-17, 2004*

Chair, Environmental Factors on Global Health, Ministerial Summit, Mexico City, Mexico, November 17, 2004#

Welcome Address, ICRH National Strategic Planning Meeting, Montréal, Québec, November 21-22, 2004*

"Genome BC Biomarkers Update," Gene-Environment Scientific Session, Vancouver, British Columbia, November 30, 2004*

"Better Biomarkers in Acute and Chronic Allograft Rejection," 8th Annual Transplantation Research Day, BC Transplant Research Institute, Vancouver, British Columbia, December 9, 2004*

Plenary Lectures: "Modern Trends in Treatment of Hypertension", "Global Pandemic of CVD - Rising Epidemic in Indian Subcontinent", "Ethical Basis for Carrying Out Clinical Trials", Joint International Conference on Heart Research, International Society on Heart Research, Ahmedabad, India, December 30, 2004 - January 1, 2005#

India-Canada Health Research & Collaboration Program, New Delhi, India, January 9-11, 2005#

"The Remaining Enigmas of Human Heart Valve Disease," 92nd Indian Science Congress Conference, Ahmedabad, India, January 3-7, 2005*

"New Horizons in Information Management – The Challenge of the Better Biomarkers Project and the Emergence of CardioSHARE," Distinguished Lecturer, Department of Cardiology, Providence Health Care, Vancouver, British Columbia, January 13, 2005*

Global Health Policy Observatory Meeting, sponsored by World Health Organization and Public Health Agency of Canada, Ottawa, Ontario, January 19-21, 2005#

"Enteroviral Heart Disease: Lessons from the Murine Model of Injury," Division of Pharmacology and Toxicology, University of British Columbia, Vancouver, British Columbia, January 21, 2005*

"The Canadian Institutes of Health Research - Meeting New Needs and Opportunities in Biomedical Discovery Through the Power of Teams and Collaboration," Biomedical Research in the Canary Islands, Las Palmas, Spain, January 31, 2005*

Consultation with PHAC for Countrywide Integrated Non-communicable Disease Intervention Program (CINDI), World Health Organization (WHO), Montréal, Québec, February 3-4, 2005#

"NHLBI Programs in Genomics and Proteomics – Progress and Lessons," Gene-Environment Scientific Session, Vancouver, British Columbia, February 15, 2005*

"Related Research: Policy, Practice and Knowledge Translation, Donation After Cardiocirculatory Determination of Death – A Canadian Forum," Canadian Council for Donation and Transplantation, Vancouver, British Columbia, February 18, 2005*

Technical Secretariat Meeting, CIHR-INS Mexico collaboration on Tuberculosis Research, Vancouver, British Columbia, February 24-25, 2005*

Evaluation Working Group Meeting, Countrywide Integrated Non-communicable Disease Intervention Program (CINDI), World Health Organization (WHO), Montebello, Québec, March 6-8, 2005#

"The History of Heart Transplantation," 20th Anniversary Society of Cardiovascular Pathology, United States and Canadian Academy of Pathology, San Antonio, Texas, February 27-March 3, 2005*

Chair & Symposium Moderator, 20th Anniversary Society for Cardiovascular Pathology Morning Session, United States and Canadian Academy of Pathology, San Antonio, Texas, February 27-March 3, 2005*

Global Health Policy Observatory meeting of the International Advisory Committee, sponsored by WHO-PAHO/PHAC, Montréal, Québec, March 23-24, 2005*



With support from CIHR, Dr. Frédéric Sériès, Department of Medicine, Laval University, is studying the pathophysiology of upper airways and obstructive sleep apnea syndrome (OSA). It is expected that this research will lead to improved diagnosis and treatment of this disease that is associated with increasing morbidity, mortality and costs to the healthcare system. (From left to right: Dr. Wei Wand, Dr. Frédéric Sériès and Mr. Germain Éthier)

APPENDIX I. Estimates of CIHR Funding of Circulatory and Respiratory Health Research

The following table reflects an estimate of CIHR's support of circulatory and respiratory health research from the 2000-01 fiscal year to the 2004-05 fiscal year only and does not include partner contributions. The numbers were generated by searching the CIHR database for grants and awards falling in the area of circulatory and respiratory health using the search criteria described below.

1. The following English key words were used to search various fields of the CIHR database (i.e., "All Research Classes," "All Research Areas," "Funding Keyword," and "Research Project Title"):

airway OR anaemia OR anemia OR arrhythmia OR asthma OR atherosclerosis OR blood OR cardiology OR cardiovascular OR cardio vascular OR cardio-vascular OR CF OR circulation OR clotting OR COPD OR coronary OR cystic fibrosis OR diaphragm OR hematology OR heart OR cardiac OR hypertension OR lung OR myocardial infarction OR pulmonary OR respiration OR respiratory OR stroke OR thrombosis OR tuberculosis OR TB OR ventilation AND (Not cancer) AND (Not leukemia) AND (Not leukaemia)¹

2. The following corresponding French key words were used to search the same fields of the CIHR database:

voie aérienne OR anémies OR arythmies OR asthme OR athérosclérose OR sang OR cardiologie OR cardio-vasculaire OR cardiovasculaire OR CF OR circulation OR coagulation OR MOR OR coronaire OR fibrose kystique OR diaphragme OR hématologie OR coeur OR cardiaque OR hypertension OR poumon OR infarctus OR pulmonaire OR respiration OR respiratoire OR accident vasculaire cérébral OR AVC OR thrombose OR tuberculose OR TB OR aération AND (Not cancer) AND (Not leucémie)¹

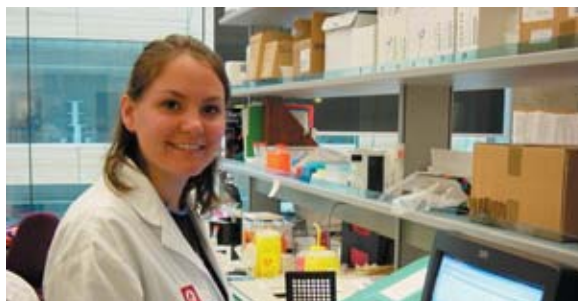
3. The database field called "Institute _ Priority" was searched for any grant or award holder who indicated on their application to CIHR that the project was related to the mandate of the CIHR Institute of Circulatory and Respiratory Health at either the primary or secondary level.

4. Any grant or award funded by ICRH.

This search was performed in June 2005 and yielded 3,886 grants and awards. Once the search was completed, the data set was validated and 662 false positive grants and awards were discarded. The results reported in last year's Annual Report are not identical to the results reported in this year's Annual Report because the validation step was not completed last year and the list of key words used this year is different compared to that used last year.

The reader should also be aware that the table that follows reflects CIHR's yearly financial contribution to grants and awards and does not reflect only CIHR's new investments. Accordingly, grants and awards held over multiple years and/or renewed in any one year will appear in multiple fiscal years.

The amounts in the table also reflect in-year investments for projects that included, but were not necessarily exclusively related to, circulatory and respiratory health research. It is not possible to determine the proportion of a project amount that is relevant to a specific area of research; the entire project amount can, therefore, be reported multiple times across several Institutes, as estimated contributions to their areas of research. It would therefore be inappropriate to add up similar numbers from all the Institutes to determine CIHR's overall support of health research. Such a process would lead to a figure that exceeds the total dollars available to CIHR.



The Strategic Training Program in Transfusion Science, offered by the University of British Columbia Centre for Blood Research and with support from CIHR, ICRH and the Heart and Stroke Foundation of Canada, is preparing highly qualified transfusion science researchers, like Ms. Audrey Labrie who is seen here, to study such things as proteomics, cellular and non-cellular blood products, creation of artificial blood products, polymer science, clinical transfusion medicine, and the sociological and psychological aspects of blood donation.

¹The following terms were added for this year's analysis and therefore (French equivalent included in parenthesis): airway (voie aérienne); CF (CF); COPD (MOR); cystic fibrosis (fibrose kystique); diaphragm (diaphragme); heart (coeur); respiratory (respiratoire); tuberculosis (tuberculose); TB (TB); ventilation (aération). As well, the term "heart failure" was replaced with the more generic term "heart."

CIHR Grants and Awards for Circulatory and Respiratory Research

	Fiscal Year									
	2000-01		2001-02		2002-03		2003-04		2004-05	
Grants - CIHR										
Operating Grants	\$31,348,815	502	\$41,818,414	647	\$49,713,590	653	\$54,032,267	721	\$60,502,532	722
Individual Group Project Operating Grants	6,689,577	86	12,399,016	156	12,827,140	148	12,770,101	133	11,024,782	114
Randomized Controlled Trials	7,462,814	38	10,438,560	42	13,602,709	50	12,897,509	51	13,580,078	49
Group Grants	6,096,975	21	4,231,054	28	3,892,238	22	3,982,695	22	3,999,795	23
Equipment and Maintenance Grants	1,488,617	16	1,044,839	17	1,027,749	13	839,655	12	546,579	13
NCE Operating Grants	3,525,000	1	3,525,000	1	3,525,000	1	3,525,000	1	3,675,000	1
Institute Support Grant	461,500	1	1,000,000	1	1,000,000	1	1,000,000	1	1,000,000	1
Miscellaneous (e.g., Workshops and Symposia, Short-term Clinician Investigator Grant)	15,000	2	20,000	4	43,000	3	95,000	6	140,000	7
Salary Awards - CIHR										
Randomized Controlled trials Mentoring Program	\$0	0	\$0	0	\$0	0	\$0	0	\$36,227	1
New Investigators	2,132,368	54	2,660,586	65	3,051,914	79	3,614,216	81	3,616,510	82
Investigators	2,225,502	42	2,487,045	45	2,983,075	50	2,903,131	49	2,266,188	42
Chairs	75,833	4	127,500	3	169,500	4	337,417	6	325,026	4
Clinician Scientists - Phase II	256,199	4	219,744	4	346,246	6	448,618	7	332,053	5
Scientists	219,875	4	270,773	4	218,308	5	150,350	3	96,164	3
Career Awards	68,958	2	69,044	2	103,125	3	112,500	3	56,250	3
Senior Research Fellowships	62,500	1	87,516	2	101,500	1	92,553	2	179,478	2
Training Awards - CIHR										
Fellowships	\$3,716,595	153	\$4,782,712	175	\$5,003,962	190	\$4,203,827	154	\$3,875,938	135
Studentships	1,581,100	117	1,681,061	124	1,647,595	131	1,704,634	125	2,281,511	132
Clinician Scientists - Phase I	287,290	7	391,484	10	273,948	7	228,850	5	532,291	11
Exchanges	6,000	2	0	0	0	0	0	0	0	0
Grants Funded Through Strategic and Developmental Initiatives – CIHR and Any Institute (not including ICRH)										
CIHR	\$1,947,261	60	\$5,750,794	78	\$5,123,432	81	\$5,282,895	70	\$4,242,150	59
Any Institute (not including ICRH)	0	0	381,747	6	2,273,895	27	3,808,023	51	4,657,806	56
Strategic Training Initiatives in Health Research	0	0	62,110	8	163,842	6	234,000	1	310,500	1
Training and Salary Awards – Any Institute (not including ICRH)										
Studentships	\$0	0	\$11,601	1	\$93,500	7	\$143,823	8	\$138,119	11
Fellowships	0	0	0	0	150,958	4	327,541	10	440,600	15
New Investigator	0	0	0	0	187,221	2	204,259	4	239,347	5
Investigator	0	0	0	0	60,431	1	142,664	2	170,081	3
Career Award	0	0	0	0	0	0	0	0	62,500	1
Grants and Awards - ICRH										
Strategic and Developmental Initiatives	\$0	0	\$353,310	7	\$2,758,766	21	\$3,292,720	25	\$7,050,641	36
Strategic Training Initiatives in Health Research	0	0	252,955	11	2,836,108	13	4,695,845	18	3,815,477	18
Studentships	0	0	0	0	36,654	6	45,867	6	37,600	4
Fellowships	0	0	0	0	106,584	6	162,650	8	159,578	8
New Investigator	0	0	0	0	35,430	2	45,600	2	47,460	2
GRAND TOTAL	\$69,667,779	1,117	\$94,066,865	1,441	\$113,357,420	1,543	\$121,324,210	1,587	\$129,438,261	1,569

APPENDIX II. ICRH Investments in Strategic Initiatives

(For the Fiscal Year Ended March 31, 2005)²

Strategic Initiative (Funding vehicle denoted in parenthesis, * = new program for 2004/05)	Number	Fiscal Year				TOTAL
		2004/05	2005/06	2006/07	2007 and beyond	
*Advancing the Science to Reduce Tobacco Abuse and Nicotine Addiction (Interdisciplinary Capacity Enhancement Team Grants)	2	\$200,000	\$200,000	\$200,000	\$400,000	\$1,000,000
*Cellular and Molecular Imaging of the Cardiovascular Pulmonary and Hematopoietic Systems (Operating Grants)	2	280,385	471,375	471,375	662,365	1,885,500
Chronic Diseases and Asthma (New Emerging Team Grants)	3	267,775	82,200	75,350		425,325
*Clinical Research Consortium to Improve Resuscitation Outcomes (Operating Grants)	2	362,071	450,539	460,362	764,689	2,037,661
*Dr. Andres Petrasovits Fellowship Award in Cardiovascular Health Policy Research (Fellowship Awards)	1	29,500	35,000	35,000	7,500	107,000
Excellence, Innovation and Advancement in the Study of Obesity and Healthy Body Weight (New Emerging Team Grants)	2	50,000	50,000	50,000	50,000	200,000
Fetal-Maternal Influences on Circulatory and Respiratory Diseases (New Emerging Team Grants)	1	174,073	174,657	172,590	173,644	694,964
*Gender and Sex Determinants of Circulatory and Respiratory Health (Interdisciplinary Capacity Enhancement Team Grants)	4	330,497	330,000	330,000	659,503	1,650,000
Gene-Environment Interactions in Circulatory and Respiratory Health (Interdisciplinary Health Research Teams)	3	1,406,356	1,107,071	928,681		3,442,108
*Inflammation and Thrombosis (Operating Grants)	1	73,827	117,274	117,274	193,221	501,596
Knowledge Translation Strategies for Health Research (Operating Grants)	1	8,333				8,333
*New Frontiers Program (Operating Grants)	3	119,379	25,164			144,543
Novel and Integrative Approaches to the Assessment, Care and Management of Patients with Circulatory and Respiratory Diseases (New Emerging Team Grants)	1	149,968	149,977	149,999	149,833	599,777
*Palliative and End of Life Care (New Emerging Team Grants)	3	287,200	300,000	300,000	683,024	1,570,224
*Regenerative Medicine and Nanomedicine: Innovative Approaches in Health Research (New Emerging Team Grants, Pilot Project Grants)	4	270,000	300,000	300,000	750,000	1,620,000
*Rural and Northern Health Research (New Emerging Team Grants)	1	75,000				75,000
Self-regeneration, Repair and Replacement of Damaged and Diseased Cells, Tissues and Organs in Circulatory and Respiratory Diseases (New Emerging Team Grants)	1	154,000	154,000	154,000	154,000	616,000
*Special Initiative in Cystic Fibrosis Research: In Memory of Michael O'Reilly (Operating Grant, Extension)	1	78,000				78,000
Strategic Initiative in Health Research Training: Focus on Stroke (Doctoral Research Awards, Rx&D Fellowships)	13	94,899	27,773	499		123,171
Strategic Training Initiative in Health Research (Operating Grants)	18	2,414,967	2,788,762	2,764,219	4,347,225	12,315,173
*Targeting the Basic Defect in Cystic Fibrosis: Request for Applications to Develop Novel Therapeutic Approaches (also known as BREATHE: Basic Research and Therapy) (Operating Grants)	2	100,000	100,000	100,000		300,000
TOTAL	69	\$6,926,230	\$6,863,792	\$6,609,349	\$8,995,004	\$29,394,375

² Grants and awards in respect to these programs are approved for 1 to 6 years. Figures displayed represent CIHR financial commitments for these programs in 2004-2005 and subsequent years. Availability of these funds in future years are subject to funding appropriations by Parliament. For some initiatives, partners also contributed to the funding of the grants and awards.

APPENDIX III. New Investments by ICRH in Strategic Initiatives

(For the Fiscal Year Ended March 31, 2005)

Strategic Initiative (Funding vehicle denoted in parenthesis)	Principle Investigator	Title of Funded Research Program	Partners	Total Value of Grant (Number of Fiscal Years)	ICRH's Total Contribution
Advancing the Science to Reduce Tobacco Abuse and Nicotine Addiction (Interdisciplinary Capacity Enhancement Team Grants)	Jennifer O'Loughlin, McGill University, Montréal, Québec	Strengthening the links between research, practice, and public policy to reduce the burden of tobacco	Heart & Stroke Foundation of Canada, The Lung Association	\$1,500,000 over 5 fiscal years	\$700,000
	Paul Wesley McDonald, University of Waterloo, Waterloo, Ontario	A pan-Canadian resource network for tobacco control research, policy and practice	CIHR Institute of Cancer Research, CIHR Institute of Neurosciences, Mental Health and Addiction	\$1,499,600 over 5 fiscal years	\$300,000
Cellular and Molecular Imaging of the Cardiovascular Pulmonary and Hematopoietic Systems (Operating Grants)	Guy Cloutier, Centre hospitalier de l'Université de Montréal (CHUM), Montréal, Québec	Cellular imaging of blood flow rheological disorders	Heart & Stroke Foundation of Canada, National Heart, Lung, and Blood Institute (NIH, USA)	\$1,601,633 over 5 fiscal years	\$951,860
	Brian Rutt, Robarts Research Institute, London, Ontario	MR imaging of myeloperoxidase activity		\$1,338,366 over 5 fiscal years	\$933,640
Clinical Research Consortium to Improve Resuscitation Outcomes (Operating Grants)	Arthur Slutsky, St. Michael's Hospital, Toronto, Ontario	Clinical research consortium to improve resuscitation outcomes	Defence Research and Development Canada, Heart & Stroke Foundation of Canada, National Heart, Lung, and Blood Institute (NIH, USA)	\$2,853,703 over 6 fiscal years	\$1,092,032
	Ian Stiell, University of Ottawa, Ottawa, Ontario	Clinical research consortium to improve resuscitation outcomes		\$2,809,650 over 6 fiscal years	\$885,680
Dr. Andres Petrasovits Fellowship Award in Cardiovascular Health Policy Research (Fellowship Awards)	Barbara Riley, University of Waterloo, Waterloo, Ontario	A political ecology of primary prevention: the case of cardiovascular disease in Canada	Heart & Stroke Foundation of Canada	\$214,000 over 4 fiscal years	\$107,000
Gender and Sex Determinants of Circulatory and Respiratory Health (Interdisciplinary Capacity Enhancement Team Grants)	Sonia Anand, McMaster University, Hamilton, Ontario	Sex and gender determinants of acute coronary syndromes and the metabolic syndrome: inter-disciplinary capacity enhancement (ICE) teams grant program	CIHR Institute of Gender and Health, Heart & Stroke Foundation of Canada	\$1,476,251 over 6 fiscal years	\$409,626
	Allan Becker, Manitoba Institute of Child Health, Winnipeg, Manitoba	Adolescent females, obesity, and asthma: an inflammatory state	CIHR Institute of Gender and Health, The Lung Association	\$1,476,251 over 6 fiscal years	\$415,376
	Susan Kennedy, University of British Columbia, Vancouver, British Columbia	Interdisciplinary capacity enhancement: bridging excellence in respiratory disease and gender studies (ICEBERGS)	CIHR Institute of Gender and Health, The Lung Association	\$1,476,251 over 6 fiscal years	\$415,376
	Louise Pilote, The Research Institute of the McGill University Health Centre, Montréal, Québec	Gender and sex determinants of cardiovascular disease: from bench to beyond	CIHR Institute of Gender and Health, Heart & Stroke Foundation of Canada	\$1,476,247 over 6 fiscal years	\$409,622
Inflammation and Thrombosis (Operating Grants)	Laszlo Bajzar, University of Alberta, Edmonton, Alberta	Inflammation and thrombosis	Heart & Stroke Foundation of Canada, National Heart, Lung, and Blood Institute (NIH, USA)	\$1,179,918 over 5 fiscal years	\$501,596
New Frontiers Program (Operating Grants)	Deborah Cook, McMaster University, Hamilton, Ontario	Canadian critical care trials group workshop: re-engineering for the future		\$52,043 over 1 fiscal year	\$52,043
	Mark Fitzgerald, University of British Columbia, Vancouver, British Columbia	Canadian respiratory clinical trials network		\$75,000 over 2 fiscal years	\$75,000
	Peter Liu, University of Toronto, Toronto, Ontario	Focused Canadian workshop on "cardiovascular complications of diabetes: state of art and future challenges"	CIHR Institute of Aboriginal Peoples' Health, CIHR Institute of Infection and Immunity, CIHR Institute of Nutrition, Metabolism and Diabetes, Heart & Stroke Foundation of Canada	\$75,000 over 1 fiscal year	\$17,500

APPENDIX III. New Investments by ICRH in Strategic Initiatives

(For the Fiscal Year Ended March 31, 2005)

Strategic Initiative (Funding vehicle denoted in parenthesis)	Principle Investigator	Title of Funded Research Program	Partners	Total Value of Grant (Number of Fiscal Years)	ICRH's Total Contribution
Palliative and End of Life Care (New Emerging Team Grants)	Daren Heyland, Kingston General Hospital, Kingston, Ontario	Understanding and improving communication and decision-making at the end of life	CIHR Institute of Cancer Research, Heart & Stroke Foundation of Canada	\$1,325,641 over 6 fiscal years	\$652,841
	Peter Kirk, University of Victoria, Victoria, British Columbia	Overcoming barriers to communication through end of life and palliative transitions	BC Cancer Agency, CIHR Institute of Cancer Research, CIHR Knowledge Translation	\$1,368,576 over 6 fiscal years	\$268,522
	Kelli Stajduhar, University of Victoria, Victoria, British Columbia	Family caregiving in palliative and end-of-life care: a new emerging team	BC Cancer Agency, CIHR Institute of Aging, CIHR Institute of Gender and Health, CIHR Institute of Health Services and Policy Research	\$1,361,361 over 6 fiscal years	\$648,861
Regenerative Medicine and Nanomedicine: Innovative Approaches in Health Research (New Emerging Team Grants, Pilot Project Grants)	Abdallah Daar, University of Toronto, Toronto, Ontario	Regenerative medicine: ethical, environmental, economic, legal and social issues network	CIHR Institute of Genetics	\$1,500,000 over 6 fiscal years	\$500,000
	Jacques Galipeau, Sir Mortimer B. Davis Jewish General Hospital, Montréal, Québec	Cardiovascular and respiratory stem cell plasticity: CARE project	Canadian Stroke Network, CIHR, Heart & Stroke Foundation of Canada	\$1,500,000 over 6 fiscal years	\$500,000
	Marie-Josée Hebert, Centre hospitalier de l'Université de Montréal (CHUM), Montréal, Québec	Development of aortic stent grafts that foster aortic repair: mimicking the normal vascular healing process with increased production of a C-terminal fragment of perlecan		\$60,000 over 1 fiscal year	\$60,000
	Serge Rivest, Centre hospitalier de l'Université Laval, Laval, Québec	Engineered bone marrow stem cells (BMSCS) for treatment of CNS injuries and diseases regenerative medicine: ethical, environmental, economic, legal and social issues network	CIHR, CIHR Institute of Neurosciences, Mental Health and Addiction	\$1,500,000 over 6 fiscal years	\$500,000
	Kimberly Woodhouse, University of Toronto, Toronto, Ontario	Surfactant modifying molecules based on recombinant human elastin polypeptides: a novel material for regenerative medicine applications in the vasculature		\$60,000 over 1 fiscal year	\$60,000
Rural and Northern Health Research (New Emerging Team Grants)	Ross Tsuyuki, University of Alberta, Edmonton, Alberta	Exploring an untapped resource: the role of pharmacists in improving healthcare in rural and northern regions	CIHR Institute of Aboriginal Peoples' Health, CIHR Institute of Health Services and Policy Research, Rural and Northern Health Research Cross-Cutting Initiative	\$1,493,872 over 6 fiscal years	\$75,000
Special Initiative in CF Research: In Memory of Michael O'Reilly (Operating Grant, Extension)	Miguel Valvano, University of Western Ontario, London, Ontario ³	Photogenomics and antimicrobial target discovery in Burkholderia cepacia	Canadian Cystic Fibrosis Foundation	\$378,000 over 2 fiscal years	\$78,000
Targeting the Basic Defect in Cystic Fibrosis: Request for Applications to Develop Novel Therapeutic Approaches (also known as BREATHE: Basic Research and Therapy) (Operating Grants)	Christine Bear, Hospital for Sick Children, Toronto, Ontario	Targeted small molecule therapies for cystic fibrosis	Canadian Cystic Fibrosis Foundation, CIHR Institute of Infection and Immunity	\$1,440,000 over 3 fiscal years	\$120,000
	John Hanrahan, McGill University, Montréal, Québec	Innovative targets for CF therapy		\$2,160,000 over 3 fiscal years	\$180,000

³This research program was mistakenly listed under the BREATHE initiative in the 2003-2004 Annual Report.

APPENDIX IV. Institute Support Grants

(For the Fiscal Year Ended March 31, 2005)

Available Funds		\$893,317
Expenses		
Institute Development		
ICRH-Sponsored conferences, symposia and workshops ⁴	\$221,500	
ICRH-Hosted and attended conferences, symposia and workshops (includes travel)	259,495	
Professional services	90,981	
Other travel Expenditures	1,504	\$573,480
Institute Operations		
Salaries and benefits	\$493,312	
Office accommodations	38,414	
Telephone and communication services	7,738	
Supplies, material and other services	53,273	
Office furniture and fixtures	115	
Computer equipment and IT support		
Professional services		
Travel expenditures		
Other expenditures	64	\$592,916
Total Expenses		\$1,166,396
Unspent Balance⁵		\$(273,079)

APPENDIX V. ICRH Support of Conferences, Symposia and Workshops

(For the Fiscal Year Ended March 31, 2005)

Benefactor, Canadian Cardiovascular Congress 2004, October 23-27, 2004, Calgary, Alberta	\$10,000.00
2004 Canadian Student Health Research Forum, June 8-9, 2004, Winnipeg, Manitoba	2,000.00
Public Heart Health Forum, June 12, 2004, Winnipeg, Manitoba	3,000.00
President's Symposium, ISHR-American Section Meeting, May 2-5, 2004, Cancun, Mexico	5,000.00
Workshop to Promote Heart and Stroke Research in Nova Scotia, Heart and Stroke Foundation of Nova Scotia, November 7, 2003, Halifax, Nova Scotia	3,000.00
Presenting Sponsor, Food for Health Exhibition, Canadian Science and Technology Museum, 2006, Ottawa, Ontario	20,000.00
5th International Heart Health Conference, June 13-16, 2004, Milan, Italy	10,000.00
47th Annual Meeting of the Canadian Society of Biochemistry, Molecular & Cellular Biology (CSBMCB), May 27-30, 2004, Mont Tremblant, Québec	8,000.00
Translational Biology and SIDS: From Proteome to Biome, 8th SIDS International Conference, July 2-6, 2004, Edmonton, Alberta	3,000.00
Biophotonics - from Fundamental Principles to Health, Environment, Security and Defence Applications, NATO Advanced Study Institute, September 29-October 9, 2004, Ottawa, Ontario	3,000.00
Integrated Chronic Disease Prevention: Getting it Together, Chronic Disease Prevention and Control, November 6-8, 2004, Ottawa, Ontario	3,000.00
Adult Stem Cells to Treat Stroke, Canadian Stroke Network and Canadian Stem Cell Network, 2004	150,000.00
FASEB Summer Research Conference on Molecular and Cellular Signaling in the Perinatal Cardiovascular System, August 14-19, 2004, Tucson, Arizona	1,500.00
TOTAL	\$221,500

⁴ See APPENDIX V for a list of ICRH-sponsored conferences, symposia and workshops.

⁵ The unspent balance as at March 31, 2005 is carried forward to the subsequent fiscal year.