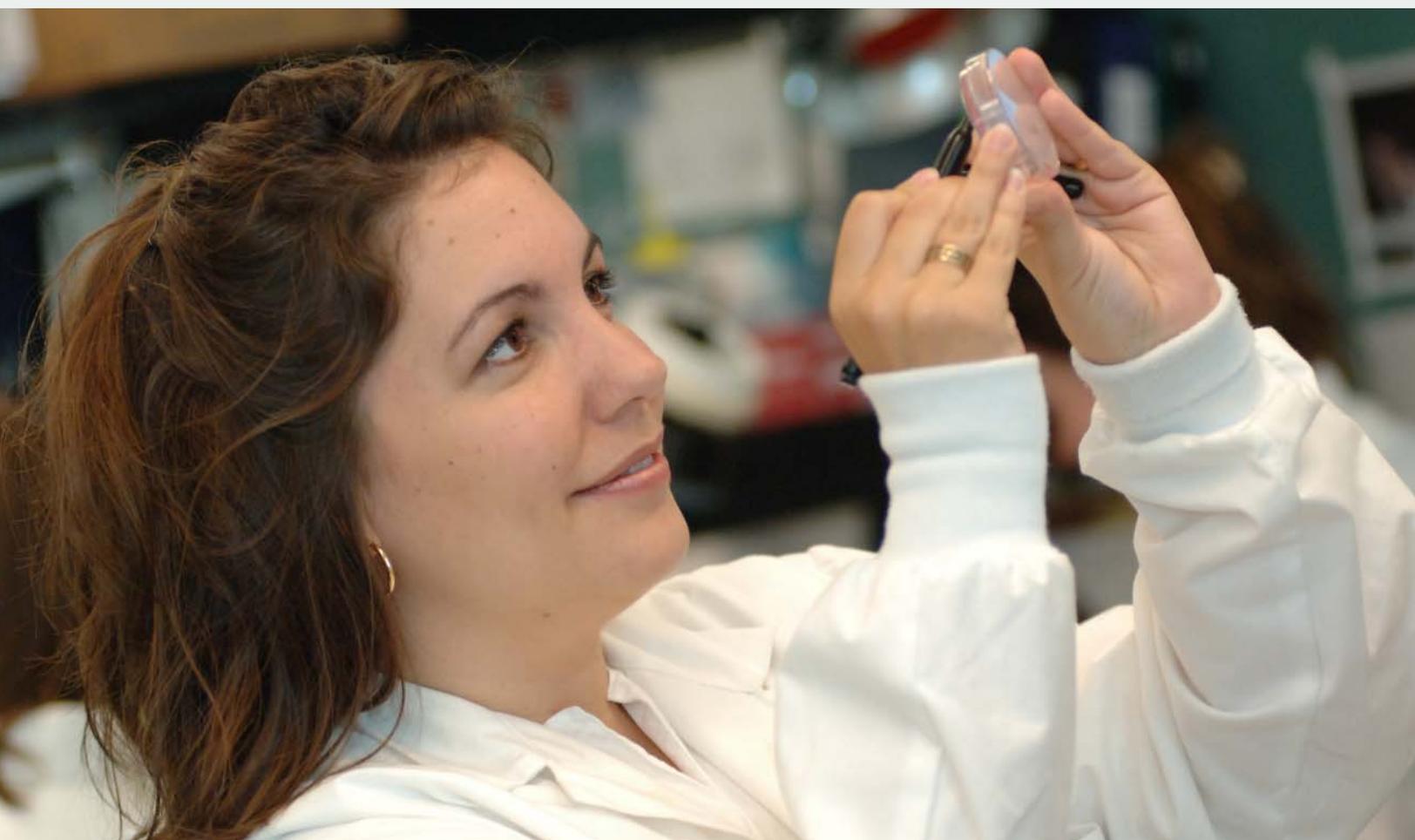


# DEFINING MOMENTS

ANNUAL REPORT  
2005 - 2006



Ottawa Health Research Institute  
**OHRI**  **IRSO**  
Institut de recherche en santé d'Ottawa

AN INSTITUTE OF • UN INSTITUT DE



A woman with a grave diagnosis regains her hope...

A young researcher realizes she can make a difference...

A husband and wife realize their generosity can change the future...

# Defining moments at the Ottawa Health Research Institute

Researchers at the OHRI are committed to developing innovative ways to prevent, diagnose, and treat human disease. Our members, now numbering more than 1,200, are working at every level, from studying the genes involved in diseases, to testing new therapies in patients, to identifying innovative ways to improve our health care system.

As an affiliated research institute of the University of Ottawa, the OHRI plays a crucial role in training the next generation of scientists. More than 300 graduate students, honours students and fellows are currently developing their skills and leadership abilities at the OHRI.

As the research arm of The Ottawa Hospital, the OHRI is intimately connected with patients and the health care system. More than 300 of our researchers work directly with patients - as physicians, surgeons, nurses and other health professionals.

# Message from the Chief Executive Officer and the Chair of the Board of Directors

By all accounts, this has been a defining year for the Ottawa Health Research Institute. As you will read in the pages of this report, our researchers are breaking new ground and often leading the world in the fight against diseases such as cancer, stroke, AIDS, and diabetes.

In November 2005, top Canadian and international scientists conducted a formal review of the Institute. The reviewers had high praise for the OHRI, especially our ability to foster collaboration among laboratory and clinical researchers. We are currently using this review to help map our future directions, including the integration of research priorities with the University of Ottawa and The Ottawa Hospital.

We reached another milestone in April 2006 with the celebration of our fifth anniversary. In 2001 we had the challenging task of integrating research programs across the hospital's Civic and General campuses. Every year since, the OHRI has continued to reach new levels and gain further recognition. In the last five years, twenty-six scientists have joined the institute along with more than 200 clinical investigators. Most recently, we welcomed more than a dozen investigators and research staff from The Ottawa Hospital Rehabilitation Centre.

One measure of the OHRI's success is our ability to secure major peer-reviewed grants. Our scientists have been awarded 11 prestigious Canada Research Chairs, and our success rate in the latest operating grant competition for the Canadian Institutes of Health Research was 33 per cent, compared to the national average of 25 per cent. In the coming year, major federal

and provincial infrastructure grants will expand our stem cell, vision, and kidney research facilities by nearly 75,000 square feet.

We have also received tremendous support from the community, through The Ottawa Hospital Foundation. Renowned investor Eric Sprott and his wife Vizma recently made an unprecedented donation to create an endowment fund for OHRI stem cell research. The Sprott Centre for Stem Cell Research, named in their honour, is set to open in November 2006.

Along with The Ottawa Hospital, we have declared this to be the Year of Clinical Research. There are currently 1,300 clinical research projects underway at the OHRI and we are planning a number of activities to recognize and support the patients and researchers involved, including the first annual Clinical Research Training Course.

Looking back on the last year, and on the last five years, we should all be proud of our achievements and confident in our future.

**Ms. Jacquelin Holzman**  
Chair of the Board of Directors

**Dr. Ronald Worton**  
CEO and Scientific Director



# A moment of hope

Many cancer researchers believe that we are on the cusp of a revolution. Our increased understanding of the molecular nature of cancer has led to the development of a number of novel "targeted" drugs that promise to be more effective and selective than traditional chemotherapies.

In the OHRI's Cancer Therapeutics Program, based at The Ottawa Hospital Regional Cancer Centre, physicians and scientists are working together to

develop these drugs and evaluate how best to use them in patients. They are making substantial progress, especially in the fight against lung cancer, a disease that kills nearly 20,000 Canadians each year.

Nancy Marrow is a patient in a cross-country clinical trial designed and led by OHRI Investigators Dr. Glen Goss and Dr. Scott Laurie and funded by the National Cancer Institute of Canada. The trial will determine if a new drug targeted against tumour

blood vessels can shrink lung tumours or halt their growth, as suggested by smaller studies at the Cancer Centre.

The current study is double-blinded, meaning neither the patients nor the doctors know who is getting the drug, but all patients are also receiving chemotherapy.

Participating in the study has given Nancy new hope, not just for herself, but for all others suffering from this disease.

**//** I was diagnosed in March when I had an X-ray for a lung infection, and the doctor saw something in my chest. He did a biopsy and said the cancer had spread to the lymph nodes in my neck.

When I saw Dr. Goss I told him I wanted the most aggressive therapy, and that's when he mentioned the trial. After the first month I had the most impressive results. They couldn't feel anything in my neck and although it was still in my chest, I've kept improving over time.

I understand that it's a double-blind study, and I may or may not be getting the drug, but even if I'm not I know that the results of this research will help other people. I believe in research and I know we can't move forward unless people participate in these trials. We need to conquer cancer and I believe it is conquerable.

**//**

Nancy Marrow,  
Russell, Ontario



# Researchers at the OHRI are providing hope to patients here in Ottawa, and around the world.

## Restarting the heart

When the heart stops beating, sometimes the only way to restart it is to jolt it with an electric shock. This is the principle behind Automated External Defibrillators (AEDs), laptop-sized devices that are increasingly being installed in malls and other public places. AEDs have saved countless lives, but new research at the OHRI may improve their success rate even further.

Dr. Ian Stiell recently presented results of the first randomized trial ever to compare the two most common electric shock patterns used in AEDs in the community. He found that when shocks were administered with an escalating energy pattern, the heart was more likely to re-adopt an organized rhythm than when a fixed energy pattern was used. A larger study will be required to determine if there is an overall effect on survival, but this research provides a crucial first step in an area that could have a huge impact.

## Supercharged vaccines

While vaccines have been highly successful in preventing diseases such as smallpox and measles, there are still no vaccines against many of the world's deadliest diseases. In addition, vaccines only work when the immune system is strong, so the most vulnerable people are often left without protection.

Dr. Curtis Cooper realized that this problem was particularly serious in HIV patients, who are living longer and longer thanks to improved drug therapy, but who still suffer from immune suppression. Dr. Cooper

recently completed a clinical trial that showed that adding a short strand of immune-stimulating DNA to the hepatitis B vaccine could quadruple its strength in people infected with HIV. The DNA molecule was designed by Coley Pharmaceutical Group, a biotech company started in part by another OHRI scientist years earlier. This research could lead to more powerful vaccines not only for HIV patients, but for the population in general.

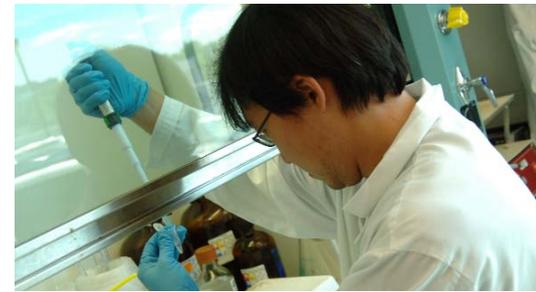
## Protecting nerve fibres

Just like a telephone cord, a nerve fibre cannot function without the insulation that surrounds it. In nerves, this insulation is called myelin, and it can be damaged by multiple sclerosis, stroke, traumatic spinal cord injury, and other conditions. Despite its importance, until recently, very little was known about how myelin becomes damaged.

Now, Dr. Peter Stys and his associate Dr. Ileana Micu have shown for the first time ever that myelin contains a special neurotransmitter receptor that controls damage by allowing the entry of calcium. They also showed that a drug already on the market can block this receptor and protect myelin from some types of damage. Dr. Stys is currently applying for funding to test this drug in patients with myelin-damaging conditions.

## Arthritis puzzle solved

Hundreds of thousands of Canadians suffer from arthritis, a condition in which the cartilage cushioning inside joints breaks down. Nobody knows what causes this condition, or exactly how it



progresses, but a new study by rehabilitation researcher Dr. Guy Trudel has provided an important piece of the puzzle.

Previous studies have shown that blood clotting proteins contribute to cartilage degeneration in arthritis, and it was assumed that these proteins originated from leaky blood vessels around the joints. But Dr. Trudel discovered that cartilage cells themselves produce a blood clotting protein called prothrombin, and they seem to produce more of it in an animal model of arthritis. The study, done with biochemist Dr. Odette Laneuville and orthopedic surgeon Dr. Hans Uthoff, showed that cartilage cells from human joints also produce the factor. With this new role of cartilage revealed, novel strategies may be devised to decrease blood clotting and thus halt disease progression.



# A moment of discovery

Medical research takes a special kind of dedication. The work can be slow-going, and the benefits may seem far off, but the moments of discovery can make it all worthwhile.

In academic research, much of the hands-on work is done by students, but it is also these students who get to experience discovery first-hand. As an affiliated research institute of the University of Ottawa, the OHRI

provides training for more than 300 young researchers every year.

Dina Shafey is a PhD student in Dr. Rashmi Kothary's group. This year, she published research that provides new insight into Spinal Muscular Atrophy (SMA), a debilitating and incurable childhood genetic disease.

Before this research, it was thought that muscle problems in SMA patients were caused by problems in

the connecting motor neurons. But Dina found that the gene involved in SMA has a big effect in muscle cells themselves.

The discovery is exciting and it is certainly a big career step, but for Dina it is also rewarding on another level, as she volunteers regularly with some of the sickest children in Ottawa.

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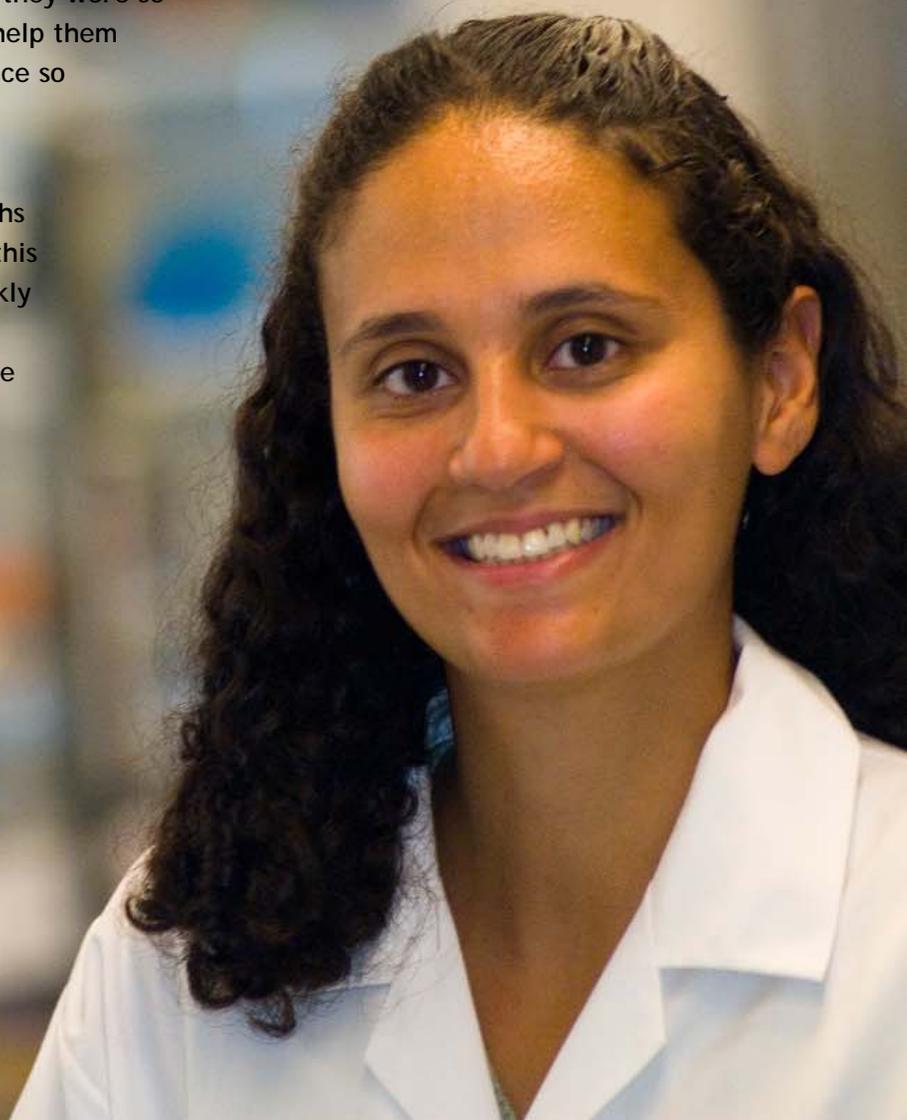
When I started volunteering at CHEO I was amazed at how happy the kids seemed, even though they were so sick. I knew I wanted to do something to help them and I was always really interested in science so getting into research was not a difficult decision.

Sometimes in research you spend months on something and it just won't work, but this particular experiment worked pretty quickly for me. I remember looking under the microscope and I could see that the muscle cells with diminished SMA gene product weren't developing properly. It was exciting because nobody had ever shown that before.

Volunteering is a nice break from the lab, but it also makes the lab work so much more rewarding because it brings you back to what you're trying to do, which is to help kids.

//

**Dina Shafey,**  
PhD Candidate,  
University of Ottawa



# Researchers at the OHRI are discovering new ways to prevent, diagnose, and treat disease.

## A molecular cause of miscarriage

Obstetrician Dr. Andrée Gruslin had always wondered why some of her patients seemed to lose pregnancy after pregnancy. This situation is often associated with intrauterine growth restriction (IUGR), a condition in which the placenta fails to grow enough to support the pregnancy. To try to figure out the problem, Dr. Gruslin took blood from a large number of pregnant women and tried to correlate the levels of certain molecules with their pregnancy outcomes.

Through this research, Dr. Gruslin identified the molecule that activates the most important growth factor for the placenta, and she found that many women with IUGR had a problem activating this factor. This finding could make it possible to identify high-risk pregnancies earlier, and it could ultimately lead to novel miscarriage prevention strategies.

## Resistance to stroke

In the same way that jogging can prepare the body for a marathon, a small stroke-like stimulus can prepare the brain for a larger stroke, by activating protective mechanisms. Sarah McKee, a PhD student working with Dr. Charlie Thompson and Dr. Antoine Hakim, recently characterized a gene called Egr-1 that may play a master role in this effect by turning on the expression of numerous other protective genes.

They showed that Egr-1 is not only induced by stroke-like stimuli - it is also induced very strongly by a molecule called ATP, which is involved

in transferring energy around the cell and in sending signals between neurons. Their results suggest that perhaps ATP could be used to artificially induce a protective response in the stroke setting, to help keep brain cells alive and thus reduce damage.

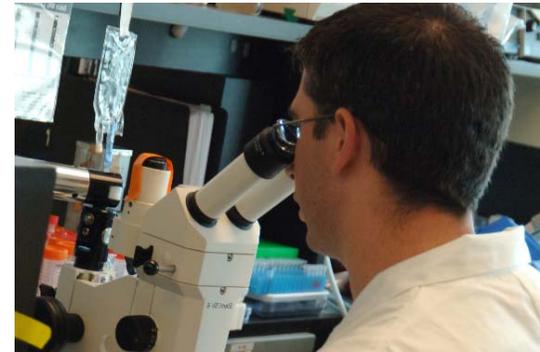
## Detecting kidney disease earlier

Dr. Ayub Akbari had seen countless patients in the nephrology clinic who had obviously been suffering from chronic kidney disease for years, but were never diagnosed. His frustration led him to investigate the creatinine blood test, widely used by family physicians to detect kidney problems. High levels of this substance can indicate poor kidney function, but creatinine levels also vary with muscle mass.

Dr. Akbari found that although the test was effective in young men, it was often misleading in people with less muscle, including women and the elderly. He showed that adjusting creatinine levels using a simple equation could fix the problem, and this approach has now been adopted by many medical laboratories across the country. Detecting chronic kidney problems earlier should help some patients avoid treatments such as dialysis and transplantation.

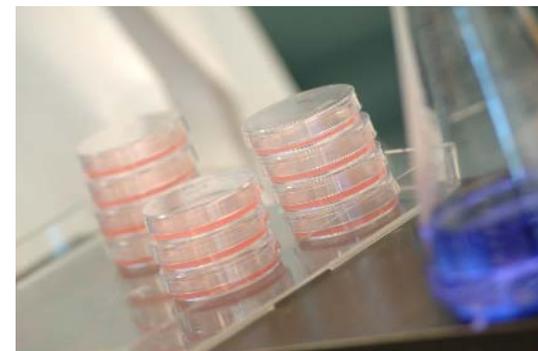
## Better care for diabetes

As almost every patient knows, better health care is not just about better treatment. It is also about having a flexible and efficient health care system that can respond quickly



to each patient's needs. There is a whole field of research - called quality improvement - devoted to figuring out how to create such a system. Dr. Kaveh Shojania is an expert in this area, and he recently made a very interesting discovery in the field of diabetes.

Dr. Shojania systematically analyzed the results of 66 studies, and found that of all the quality improvement strategies tested, only one consistently made diabetes patients healthier. This strategy involved giving experienced nurses and pharmacists the ability to make minor medication adjustments. As this research shows, innovations in health care delivery can have just as much impact as innovations in health care itself.



# A moment for our future

Imagine a future in which heart muscles can be repaired, nerves can be regrown, and vision can be restored. That future is within our reach, and it just got a lot closer, thanks to a generous donation by renowned investor Eric Sprott and his wife Vizma.

The couple has donated \$7 million to create an endowment fund to support stem cell research at the OHRI.

It is the largest individual donation in the history of The Ottawa Hospital Foundation.

The Sprott Centre for Stem Cell Research, named in their honour, is set to open in November 2006. The Centre, shown at right, will be the largest facility in Canada devoted specifically to stem cell research.



The Sprott Centre for Stem Cell Research (indicated with arrow) was built with funding from the Canada Foundation for Innovation, the Ontario Innovation Trust, and private donors to The Ottawa Hospital Foundation.



Eric and Vizma Sprott, photographed at The Ottawa Hospital Foundation Gala for Research in November 2005. Mr. Sprott was born at the Civic Campus of The Ottawa Hospital and he continues to be one of the community's strongest supporters.

“ Since our first meeting with Dr. Worton and Dr. Rudnicki, we realized that these were exceptional scientists who would one day play a key role in curing disease on a global scale. We are excited to be a part of that work and know that our investment will pay enormous dividends some day.

”

Eric Sprott  
Chairman and CEO,  
Sprott Asset Management

The Sprott Centre for Stem Cell Research will be led by Dr. Michael Rudnicki, an OHRI scientist who is well known internationally for his discovery of stem cells in adult muscle tissue.

Other OHRI scientists are studying stem cells in the context of stroke, Parkinson's disease, blindness, multiple sclerosis, and diabetes.

Therapies based on adult bone marrow stem cells are already being tested in patients, with promising preliminary results.

The Sprott Centre for Stem Cell Research will provide state-of-the-art facilities and equipment for about 120 scientists, students, and research staff.



Dr. Michael Rudnicki (right), Director of the Sprott Centre for Stem Cell Research, with PhD student Vince Punch.

# Researchers at the OHRI are leading innovative national and international projects.

Science knows no borders, and neither do OHRI researchers. Many of our scientists and investigators are leading collaborations that span the country and the globe.

## Clinical trials

- Dr. Ian Stiell is a Principal Investigator in the Resuscitation Outcomes Consortium, a US\$50 million clinical trials network involving several dozen cities across North America. The Consortium is testing a number of new devices and techniques designed to improve treatment of cardiac arrest and trauma.
- Dr. Greg Knoll is leading a 12-city Canadian clinical trial to determine if a drug best known for lowering blood pressure may also be able to improve the function of transplanted kidneys.
- Dr. Marc Rodger is leading an international clinical trial that will determine if a common blood thinner, taken throughout pregnancy, can reduce the rate of miscarriage and other complications.
- OHRI investigators from The Ottawa Hospital Regional Cancer Centre are leading more than half a dozen



Patrick Lefavre and Dr. Christian Vaillancourt are involved in the Resuscitation Outcomes Consortium, along with Principal Investigator Dr. Ian Stiell.

multi-site clinical trials through the National Cancer Institute of Canada Clinical Trials Group.

- Dr. Bill Cameron is leading a three-country clinical trial to compare different ways of treating HIV patients who have failed previous therapies.
- Dr. Jonathan Angel is leading a Canada-wide trial of a therapeutic HIV vaccine.

## Health services research

- Dr. Jeremy Grimshaw has a leading role in the Cochrane Collaboration, an international group creating what have been called "Coles Notes for Doctors". Dr. Grimshaw is the Director of the Canadian Cochrane Network and Centre, and the international Coordinating Editor of the Cochrane Effective Practice and Organization of Care (EPoC) group.
- Dr. Annette O'Connor is a founder and co-chair of the International Patient Decision Aid Standards Collaboration. This 122-member, 14-country group is working to standardize and evaluate tools developed around the world to help patients and their practitioners make complex health care decisions.

## Basic and translational research

- Dr. Michael Rudnicki is heading the International Regulome Consortium, a team of scientists working to identify the proteins that regulate gene expression and determine their role in normal and diseased tissue. Dr. Rudnicki's proposal to expand this collaboration was one



OHRI researcher Dr. Benjamin Tsang (right) with researchers from Beijing University First Hospital and State Key Laboratory of Reproductive Biology.

of just three proposals recently short-listed for a \$30 million grant from the Canada Foundation for Innovation.

- Dr. John Bell is leading the Canadian Oncolytic Virus Consortium, a network of investigators working to develop viral therapeutics for cancer.
- Dr. Benjamin Tsang has led a number of international collaborations, including the first Sino-Canada Bilateral Workshop on Reproductive Health Research, held in Beijing in November.
- Dr. Jay Baltz leads the Program on Oocyte Health, a multi-centre consortium of researchers trying to improve the health of human eggs produced during infertility treatments.

## Networks of Centres of Excellence

OHRI Scientists provide leadership for two Canadian Networks of Centres of Excellence:

- Dr. Antoine Hakim leads the Canadian Stroke Network.
- Dr. Michael Rudnicki leads the Stem Cell Network of Canada.

# OHRI Scientists and Investigators

## Cancer Therapeutics

**Scientists:** Michael McBurney (Director), Christina Addison, Harold Atkins, John Bell, Jim Dimitroulakos, Douglas Gray, Alain Lagarde, Ian Lorimer, Bruce McKay, Cheng Ng, Luc Sabourin, Barbara Vanderhyden, John Woulfe

**Investigators:** Olusegun Agboola, Lisa Bitonti, Robin Boushey, Karen Burns, Christina Canil, Jean-Michel Caudrelier, Christine Cripps, Peter Cross, Joanna Cygler, Susan Dent, Choan E, Libini Eapen, Samy El-Sayed, Bernd Esche, Michaela Funke, Kee Fung, Paul Genest, Lee Gerig, Stan Gertler, Andre Girard, Rakesh Goel, Glenwood Goss, Laval Grimard, Shahidul Islam, Derek Jonker, Oliver Keller, Wayne Kendal, Gabriel Lam, Scott Laurie, Catherine Lochrin, Miller MacPherson, Robert MacRae, Shawn Malone, Joseph Mamazza, Diane Manii, Celia Marginean, Jean Maroun, Joanne Meng, Bhavani Nair, Garth Nicholas, Gad Perry, Peter Raaphorst, Neil Reaume, Rajiv Samant, Roanne Segal-Nadler, Mary Senterman, Janos Szanto, Shailendra Verma, James Watters, Johanne Weberpals, David Wilkins, Vincent Young

## Clinical Epidemiology

**Scientists:** Jeremy Grimshaw (Director), Shawn Aaron, Jamie Brehaut, Bill Cameron, Doug Coyle, Ann Cranney, Robert Dales, Dean Fergusson, Alan Forster, Ian Graham, Paul Hébert, Malcolm Hing, Salmaan Kanji, Sonya Kashyap, Lauralyn McIntyre, Annette O'Connor, Keith O'Rourke, Jeff Perry, Timothy Ramsay, Marc Rodger, Kaveh Shojania, Ron Sigal, Ian Stiell, Monica Taljaard, Alan Tinmouth, Peter Tugwell, Christian Vaillancourt, Carl Van Walraven, Mark Walker, George Wells, Philip Wells, Keith Wilson, Shi Wu Wen

**Investigators:** Gonzalo Alvarez, Nahid Azad, Hifzija Bajramovic, Sue Balmer, Alan Baxter, Paul Beaulieu, Michael Bell, Isabelle Bence-Bruckler, Haney Bissada, Jeff Blackmer, Lynn Bloom, A.J. Bodurtha, Paul Bragg, Lucie Brosseau, Greg Bryson, Peter Bunting, Anna Byszewski, Ilias Cagiannos, Lisa Calder, Pierre Cardinal, Sharon Caughey, Donald Chow, Heather Clark, John Collins, Curtis Cooper, Martin Corsten, Edward Crosby, Barbara Davies, Marie Josée De Alberto, Cathy De Grasse, Daniel Deforge, Robert Dent, Joyce D'Eon, Geoffrey Dervin,

Marc Desjardins, Nathalie Duchesne, Nancy Dudek, Hidel Finestone, Melissa Forgie, Martin Friedlich, Monique Frize, France Gagnon, Robert Garnett, Alan Giachino, Louis Goudreau, Denis Gravel, Eva Grunfeld, George Hajjar, Margaret Harrison, Andrew Hill, Richard Hodder, William Hogg, Jonathan Hooper, Gerard Jansen, Garth Johnson, Elaine Jolly, Gwynne Jones, Algis Jovaisas, Atul Kapur, Glen Kenny, John Kim, Paul Kim, Gregory Knoll, Gunnar Kraag, Stephen Kravcik, Dan Krewski, Tien Le, Nicole Le Saux, Danielle Leddy, Judith Leech, France Légaré, Edward Lemaire, Jacques Lemelin, Ron Lewis, Geoffrey Lewis, Geriant Lewis, Jo Logan, Anne Lui, Jamie MacDougall, Peter MacLeod, John Mahoney, Kien Trung Mai, Shawn Marshall, Donna Maziak, Anne McCarthy, Sheryl McDiarmid, Jocelyne McKenna, Doug McKimm, Ann Meltzer, Donald Miller, Frank Molnar, Christopher Morash, Terence Moyana, David Neilipovitz, Graham Nichol, Siabhan O'Donnell, Patricia O'Neill, Daylily Ooi, Martin Osmond, Giuseppe Pagliarello, Dilip Patel, John Penning, Sherry Perkins, Mary Perugini, Tomasz Polis, Marie-Pascale Pomey, Roy Poses, Roanne Preston, Karam

## Canada Research Chairs

- Miguel Andrade (Bioinformatics)
- Marjorie Brand (Regulation of Gene Expression)
- Jeffrey Dilworth (Epigenetic Regulation of Transcription)
- Jeremy Grimshaw (Health Knowledge Transfer and Uptake)
- Alan Mears (Genetics of the Eye)
- Annette O'Connor (Health Care Consumer Decision Support)
- Michael Rudnicki (Molecular Genetics)
- Kaveh Shojania (Patient Safety and Quality Improvement)
- Rhian Touyz (Hypertension)
- Peter Tugwell (Health Equity)
- Philip Wells (Thromboembolic disease)

## Endowed and sponsored chairs

- Paul Albert (CIHR/Novartis Michael Smith Chair in Neurosciences)
- Lucie Brosseau (University Research Chair)
- Seymour Brownstein (Les Amis Research Chair)
- Lynn Megeney (Mach-Gaensslen Chair in Cardiac Research)
- Réjean Munger (Clifford, Gladys and Lorna J. Wood Chair for Vision Research)

- Leo Renaud (J. David Grimes Research Chair)
- Ruth Slack (University Research Chair)
- Cathy Tsilfidis (Donald and Joy Maclaren Chair for Vision Research)
- Barbara Vanderhyden (Corinne Boyer Chair in Ovarian Cancer Research)
- Ronald Worton (Evelyne and Rowell Laishley Chair)

## Canadian Institutes of Health Research salary awards

- |                    |                     |                    |
|--------------------|---------------------|--------------------|
| • Shawn Aaron      | • Christina Addison | • Richard Bergeron |
| • Antonio Colavita | • Ann Cranney       | • Dean Fergusson   |
| • Douglas Gray     | • Chris Kennedy     | • Qiao Li          |
| • Lynn Megeney     | • Robin Parks       | • Luc Sabourin     |
| • Andrew Seeley    | • Ian Stiell        | • Alan Tinmouth    |

## Other salary awards

- Jonathan Angel (Ontario HIV Treatment Network)
- Jamie Brehaut (Ontario Ministry of Health and Long-Term Care)
- Karen Copeland (Ontario HIV Treatment Network)
- Alan Forster (Ontario Ministry of Health and Long-Term Care)
- David Grimes Jr. (Parkinson Society Ottawa)

Ramotar, Laura Rees, Dennis Reid, Susan Robertson, Gail Rock, Ginette Rodger, Ola Rosaeg, Alaa Rostom, Virginia Roth, Terry Ruddy, Raphael Saginur, Dimitrios Scarvelis, David Schramm, Andrew Seely, Christiane Seguin, Douglas Smith, J. Robert Swenson, Richmond Sy, George Tasca, Calvin Thompson, Ellen Thompson, Marianne Thornton, Peter Thurston, Guy Trudel, Michele Turek, Jeffrey Turnbull, Richard Van der Jagt, Nha Voduc, Eugene Wai, Jennifer Wainman-McNaugh, Robin Walker, James Watterson, Joel Werier, Kumanan Wilson, Rene Wong, Michael Woo, Linda Wynne, Homer Yang, Hossein Yazdi, Jean-Denis Yelle, Wanzhen Zeng, Deborah Lynn Zimmerman

## Hormones, Growth and Development

**Scientists:** Alexander Sorisky (Acting Director), Marie-Andrée Akimenko, Jay Baltz, Ajoy Basak, Michel Chrétien, Andrée Gruslin, Robert Haché, Yvonne Lefebvre, Qiao Li, Johné Liu, Majambu Mbikay, Jerry Radziuk, Nuch Tanphaichitr, Benjamin Tsang, Kursad Turksen, Xiaohui Zha

**Investigators:** Louise Balfour, Sylvie Braschi, Marc Ekker, Marlene Ghattas, William Gibb, Erin Keely, Carolyn Kennelly, Arthur Leader, Marie Claude Léveillé, Heather Lochnan, Teik-Chye Ooi, Linda Scully, Ann Sprague, George Tawagi, John Veinot, Peter Walker

## Molecular Medicine

**Scientists:** Michael Rudnicki (Director), David Allan, Miguel Andrade, Jonathan Angel, Marjorie Brand, Dennis Bulman, Kevin Burns, Karen Copeland, Jeffrey Dilworth, Gary Garber, Christopher Kennedy, Rashmi Kothary, Charles la Porte, Paul MacPherson, Lynn Megeney, Robin Parks, David Picketts, Fraser Scott, Rhian Touyz

**Investigators:** Ayub Akbari, Lizanne Beique, Mohan Biyani, Ronald (Ron) Booth, Antonio Giulivi, Rose Goldstein, Mary-Ellen Harper, Lothar Huebsch, Bernard Jasmin, Jolanta Karpinski, Jacob Karsh, David Levine, Susan Lavoie, Craig Lee, Peter Magner, Robert McKendry, Denis Page, Gerald Posen, Marcel Ruzicka, Baldwin Toye, Balwant Tuana, Lisheng Wang

## Neuroscience

**Scientists:** Antoine Hakim (Director), Paul Albert, Richard Bergeron, Hsiao-Huei Chen, Antonio Colavita, Mark Freedman, David A. Grimes, Matthew Hogan, Cathy Morris, Johnny Ngsee, David Park, Leo Renaud, Michael Schlossmacher, Ruth Slack, Peter Stys, Mario Tiberi

**Investigators:** Ian Cameron, Barbara Collins, Alan Guberman, Jennifer Hunt, Tilak Mendis, Jean Michaud, Richard Moulton, M. Nzau, Catherine Elizabeth Pringle, Michael Richard, Paul Roy, Mukul (Michael) Sharma, Lucian Sitwell, Grant Stotts

## Vision

**Scientists:** Bruce Jackson (Director), Seymour Brownstein, May Griffith, Fengfu (Frank) Li, Alan Mears, Réjean Munger, Catherine Tsilfidis, Valerie Wallace

**Investigators:** Ralf Buhmann, Stuart Coupland, Karim Damji, William Hodge, Bernard Hurley, David Jordan, Peter Kertes, Brian Leonard, George Mintsoulis

- Bruce McKay (National Cancer Institute of Canada)
- Jeffrey Perry (Ontario Ministry of Health and Long-Term Care)
- Marc Rodger (Heart and Stroke Foundation of Canada)
- Alexander Sorisky (Heart and Stroke Foundation of Ontario)
- Peter Stys (Heart and Stroke Foundation of Ontario)

## Special recognition

- Shawn Aaron (2006 Royal College of Physicians and Surgeons of Canada Detweiler Travelling Fellowship Award)
- Stuart Coupland (2005 Achievement Award, American Academy of Ophthalmology)
- Bruce Jackson (2005 Senior Achievement Award, American Academy of Ophthalmology)
- Ed Lemaire (2005 Clifford Chadderton Award, International Society for Prosthetics and Orthotics Canada and the War Amputations of Canada, with T. Yakimovich and E.D. Kofman)
- Annette O'Connor (2005 University of Ottawa Excellence in Research Award; Fellow, Canadian Academy of Health Sciences)
- David Park (2005 OHRI Researcher of the Year Award)
- Peter Raaphorst (2005 Career Achievement Award, Ottawa Life

- Sciences Council)
- Leo Renaud (2005 Distinguished Scientist Award, Canadian Society for Clinical Investigation; 2005 University of Ottawa Alumni Award, Faculty of Medicine; 2006 Canadian Physiological Society Symposium in his honour)
- Ginette Rodger (2005 Award of Excellence, University of Alberta Alumni Association)
- Marc Rodger (2006 Ontario Early Researcher Award)
- Ian Stiell (2005 Senior Investigator Award, Society for Academic Emergency Medicine; 2005 University of Ottawa Faculty of Medicine Excellence in Mentoring Award)
- Benjamin Tsang (2005 Dr. J. David Grimes Research Career Achievement Award)
- Jeffrey Turnbull (2006 Ontario Medal for Good Citizenship)
- Christian Vaillancourt (2005/6 University of Ottawa Emergency Medicine Postgraduate Teacher of the Year)

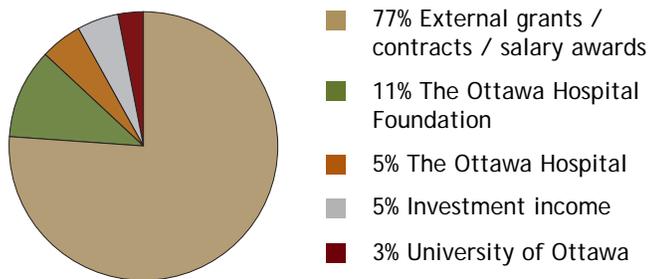
**Note:** Scientists and Investigators listed as of August 2006. Chairs, awards, and special recognition listed as of 2005/6 fiscal year.

# 2005 - 2006 Board of Directors

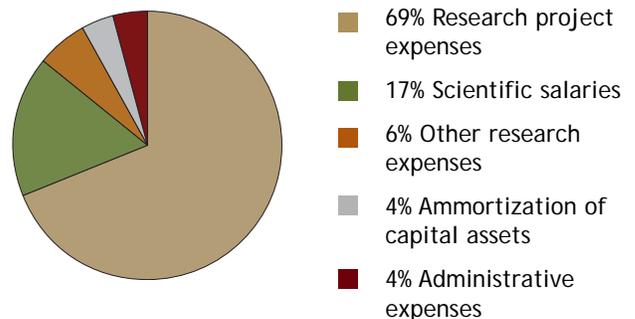
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Ian Mumford	Dr. F. David King	James Morrissey	Dr. Ronald Worton

# 2005 - 2006 Financial statements

Revenue distribution (\$76.6 million)



Expenditure distribution (\$75.5 million)



# Fast facts

**Research staff (as of March 31, 2006)**

- 105 scientists
- 255 investigators
- 345 trainees
- 580 support staff

**New external funding (2005-2006)**

- 203 grants
- 51 salary awards
- 68 research contracts

**Scientific publications (2005)**

- 438

**Commercialization (2005-2006)**

- 9 patents filed
- 12 inventions disclosed
- 7 technologies licensed

**Clinical research (as of March 31, 2006)**

- 1,300 active clinical trials, chart reviews, and other clinical research studies

**Research space (as of March 31, 2006)**

- 197,000 square feet, with another 75,000 square feet currently under construction

**More information**

- [www.ohri.ca](http://www.ohri.ca)
- [www.ohfoundation.ca](http://www.ohfoundation.ca) (to support our research)