



## JGH Foundation Governors' Circle

# Profiles in Research

### PROVIDING EXEMPLARY SUPPORT TO RESEARCH AND PATIENT CARE

The JGH Foundation Governors' Circle provides members with the opportunity to show their financial support of world-class patient care and cutting-edge research at the Jewish General Hospital. It boasts more than 5,600 members who contribute at one of four giving levels – bronze, silver, gold and platinum. The Governors' Circle provides crucial funding to our physicians, surgeons and medical scientists and enables them to remain at the forefront of health care and medical discovery.



**Dr. Lawrence Rosenberg,  
MD, PhD**

General Surgery residency at the Montreal General Hospital, followed by a transplant surgery fellowship at the University of Michigan. In 1987, Dr. Rosenberg returned to the Montreal General Hospital where he served as Director of the Multi-Organ Transplant Program until 1998. During his tenure there, he inaugurated McGill's Pancreas Transplant Program and led the team that performed the first successful liver transplant operation. Dr. Rosenberg is currently Professor of Surgery and Medicine, A.G. Thompson Chair and Director of the Division of Surgical Research at McGill University.

Dr. Rosenberg is a member of the Canadian Academy for Health Sciences and is a founding member of the Stem Cell Network of Canada. He has authored more than 200 peer-reviewed publications, including several multi-authored books.

The contributions of Dr. Rosenberg have been acknowledged by many national and international agencies including the Juvenile Diabetes Research Foundation, the Canadian Institute for Health Research and the Stem Cell Network of Canada.

The quality of his work has also earned him many honours, including a Medical Research Council of Canada Scholarship, a McLaughlin Foundation Fellowship and a *Chercheur-National* Award from the Government of Quebec. He is the only Canadian to have received the prestigious American Surgical Association Foundation Fellowship.

### A trail blazer in pancreatic research

Dr. Rosenberg has devoted 27 years of his life to research into the cellular basis of diabetes and is considered a leader in the field. **He is the co-discoverer of INGAP, a protein that has a biological ability to regenerate insulin producing cells in the pancreas of diabetic patients.**

Dr. Rosenberg explains: "This is the first regenerative approach to curing diabetes. Presently, the only option to replace the missing cells is transplantation. There will never be enough organ donors and because immunosuppression is required, there are a number of side effects. Restoring insulin-producing cells by re-growing them is a far better option because it is a very natural way of curing diabetes."

### Dr. Rosenberg's research has entered Phase 2 clinical trials and could be approved as a therapy as early as 2014.

Diabetes is epidemic. It is a chronic condition that stems from the body's inability to sufficiently produce and/or properly use insulin, which it needs to absorb sugar in order to use it as an energy source.

According to the Public Health Agency of Canada, approximately 1.9 million Canadian men and women were diagnosed with diabetes in 2005 - 2006. This represents about 1 in 17 Canadians. With the aging of Canada's population, the total direct health care costs associated with diabetes are expected to increase to over \$18 billion annually by 2016. So Dr. Rosenberg's therapeutic advance could have benefits not only for patients, but also for the economy.

### Committed to providing the best surgical services in the province

As Chief of Surgical Services, Dr. Rosenberg is not only paving the way to a cure for diabetes. He also wants to improve the experience of patients undergoing surgery at the JGH.

## Dr. Rosenberg (continued)

Dr. Rosenberg explains: “We are looking at case volume and case mix, how we deal with bottlenecks to patient flow and how to avoid them in the future, and how we can reduce wait times.”

One year ago as part of this exercise, Dr. Rosenberg’s team, together with Surgical Nursing, embarked on the Hospital’s first operational efficiency project in the Operating Room (O.R.). This has already made significant inroads into overall efficiency. For instance, Surgical Services improved their morning “on-time start rate” from 56% to 86%. (The standard in North America is 27%.) In addition, turnover time between cases was reduced by 20%.

By combining both improvements, wait times have decreased, and the volume of surgeries has gone up in select areas such as cancer, orthopedics and robotic surgery (urology and gynecology oncology).

The JGH Department of Surgical Services has also changed the way it schedules surgical cases. In most hospitals, the standard practice is to simply allocate specific periods of time in the O.R. to different surgical divisions whether they use it all or not. Now, Dr. Rosenberg meets with his team on a weekly basis to look at utilization rates, and if necessary, O.R. time from an underutilizing group is transferred to one that needs more.

***“By changing the way we book cases, we can operate on more patients. We’ve achieved significant improvements in patient flow, bottlenecks are being reduced and patients get out of the Hospital sooner.”***

Patients requiring cataract or orthopedic surgery are already benefiting. So are those requiring Head and Neck surgery, with wait times having been reduced from 13 months to a few weeks.

The JGH is firmly committed to the quality improvement process. This is why it has instituted the National Surgical Quality Improvement Program (NSQIP). An initiative of the American College of Surgeons, it enables hospitals to compare themselves to other hospitals throughout North America, and ultimately implement measures that improve quality of care and patient safety, as well as reduce complications and length of stay.

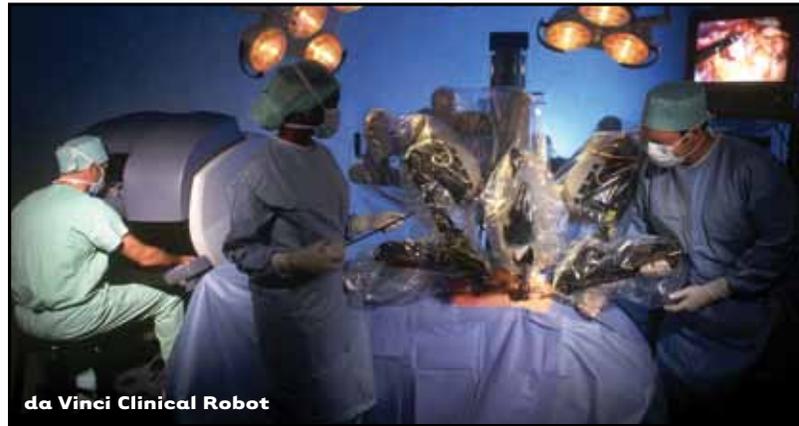
**The JGH is one of only three hospitals in Canada to have adopted the NSQIP.** The Program has already been implemented in vascular and general surgery, and will be expanded to other surgical disciplines in the coming months.

## Changing the experience of surgery

In early 2008, thanks to our generous donors, the JGH was able to purchase a **da Vinci Clinical Robot**, a high definition system that facilitates surgical procedures with only minimal incisions. Because it is less invasive and more easily tolerated, patients tend to experience less pain and loss of blood. They recover more quickly and suffer fewer side effects. Many go home sooner without ever having to stay in the Intensive Care Unit.

The JGH recently signed a research partnership with the company that markets the da Vinci Clinical Robot to acquire a robot simulator. This will facilitate the training of our surgical staff including residents and fellows. The JGH will be one of two hospitals in Canada with a robot simulator, meaning its surgeons will be able to get “hands on” experience on an ongoing basis.

The robot is used principally in Urology and Gynecology, but the program is quickly expanding to include General Surgery and soon Cardiac Surgery as well. So the Hospital wishes to acquire a new machine as soon as donations make it possible.



## How you can help

With the exception of the da Vinci Clinical Robot, these programs are not equipment driven. What drives them are the people involved. Dr. Rosenberg is therefore inviting donors to think outside the box and invest in intellectual capital – in people, such as the health services and operations management researchers and data analysts who will drive the next major advances in surgical care.

As Dr. Rosenberg says, “A lot of good things are happening in surgical research and patient care at the JGH, but private funding will be crucial to accelerating the pace of our progress in order to achieve world-class results. It is our donors who will keep us at the forefront of patient care and research.”

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