Advancing Leadership & Innovation
In Specialized Health Care in B.C.

B.C. Conversation on Health Submission by VGH & UBC Hospital Foundation

Thinking differently about health care. Acting on VGH’s role in coordinated, complex care for all British Columbians.

July 2007
Thinking differently about “Vancouver General Hospital”

**Vancouver**
It’s not just Vancouver. It serves all of B.C.

**General**
Goes beyond “general” to deliver “super-specialized” care.

**Hospital**
It’s more than a hospital. It’s a world-class tertiary and quaternary complex care centre, academic teaching centre and major research and innovation hub.
Table of Contents

I. Introduction P. 3

II. The Foundation P. 4

III. VGH’s Unique Qualities P. 6
   1. Complexity of Care
   2. Centres of Excellence and Specialty Care
   3. World Class Research and Talent
   4. Leading-Edge Equipment
   5. Provincial Centre for Teaching

IV. Vision for the Future P. 14
   Recommendations

V. Appendix I P. 19
   World-renowned Medical Research Leaders at VGH

VI. Appendix II P. 24
   VGH & UBC Hospital Foundation Board of Directors
I. Introduction

Health care is a huge challenge for British Columbians. Our population is aging and the demands on our health care infrastructure are substantial. New technology brings improvements in patient care, but also increases costs.

Expenditures have grown from 33% to 42% of the provincial budget in less than 10 years. Health care costs threaten the ability of the provincial government to support other services such as education and child protection.

Despite these pressures and challenges, health care presents new opportunities for British Columbia.

The VGH & UBC Hospital Foundation is taking up the Premier’s call to bring ideas and innovation to the Conversation on Health Care.

- We envision excellence in the delivery of complex patient care.
- We envision world-class leadership in teaching and research.
- We envision health care becoming an economic strength for British Columbia, thus strengthening the public health care system.

Health care should not be pigeon-holed in people’s minds as a “social issue” or merely “public spending.” Health care research and innovation has the potential to be more of an economic generator, returning substantial benefits to the community, and reinforcing and enhancing public health care.

This paper will bring forward our ideas in the earnest hope that they will enrich the discussion about the future of health care in British Columbia.
II. The Foundation

Who we are:
The VGH & UBC Hospital Foundation represents the community of supporters of VGH, UBC Hospital and GF Strong, and all the patients of B.C. – past, present and future – who rely on their services.

The Foundation has been in existence for 27 years. Our board is comprised of leading community and business leaders who put their wide range of skills and experience to work for VGH, UBC Hospital and GF Strong. We are supported by a professional staff of 41 people.

Our board, donors and supporters have more than a financial investment in health care – they have a personal investment.

Over 15,000 donors, from many walks of life and different parts of the province, support the Foundation each year. Many donors do more than just write a cheque – they bring a unique, community, and entrepreneurial perspective in helping to create sustaining legacies for our public health care system.

The Foundation has raised $250 million over last ten years, including $35 million in the past year alone. We make investments, guided by medical and hospital leadership, that help provide for world-class patient care and research.

Why we are participating in the Conversation on Health Care:
The Foundation and its supporters care passionately about public health care in British Columbia. We are the only community board that specifically reflects the interests of VGH, UBC Hospital and GF Strong, and believe it is our responsibility to bring our views forward to the Conversation on Health.

We appreciate the opportunity to be heard. We recognize that the B.C. government is seeking new ideas and interested in engaging British Columbians on health care reforms.

We have considered the challenges facing the B.C. government. We do not believe in advancing a cause based on a “silo” approach, where one solution is advocated without considering the impact on other hospitals. We believe in solutions that work for the entire public health care system in B.C.

The health care system is full of dynamic health care leaders. But a new vision for health care must have, at its core, community support. In preparing this presentation, we leveraged the resources available to our Foundation, through the skills offered by our Board of Directors, and through our network of supporters.
VGH is not just a Vancouver hospital. It is a B.C. hospital. It is as much a provincial hospital for adults needing complex care as Children’s Hospital, which serves the children of B.C. Children’s Hospital is an excellent example as to how we can connect the services provided by VGH to all British Columbians.

Our Foundation does not consider VGH to be in competition with major hospitals like Royal Columbian, St. Paul’s, or Royal Jubilee. Rather, in the most complex and catastrophic cases, for the sickest of the sick, we backstop them. In the continuum of health care, VGH is where the buck stops for many medical situations.

Philanthropic support is not a replacement for public funding, but it is an essential boost. We are part of the solution to deliver world-class health care, and we recognize that for the government to meet the challenges ahead, we need ‘all hands on deck.’ That’s why we have chosen to participate in this Conversation.
III. VGH’s Unique Qualities

VGH, UBC Hospital, and GF Strong are unique facilities that serve all British Columbians.

Though these facilities are closely linked, the primary focus of this discussion paper is Vancouver General Hospital (VGH).

VGH is much more than just Vancouver. It goes well beyond “general.” And it’s not just a “hospital.” It’s much more.

VGH serves the entire province. It delivers super-specialized care. And it’s an unmatched provincial resource that offers a unique combination of patient care, research and education opportunities, which, in turn generate jobs and other economic benefits for British Columbia.

Though its role as the pre-eminent complex care centre in British Columbia is longstanding, its emergence as a leader in North America has evolved and, in recent years, accelerated following the consolidation and regionalization of health authorities.

What makes VGH unique?

1. Complexity of Care – VGH is a tertiary and quaternary complex care centre. It backstops the B.C. health care system by taking on the most complex (multi-system and chronic illnesses), traumatic, and catastrophic medical situations, whether it is cancer surgery and care, cardiac sciences, spine, diabetes care, serious burns, or major accidents, for example.

On average, 40% of patients in acute care at VGH are from outside the Vancouver Coastal Health region. In some areas of specialty care, the percentage is as high as 70%.

By serving all British Columbians, VGH serves one of the largest population and catchment areas of any North American hospital and is unmatched in the number of specialties and complex care that health care professionals deliver.

Between the three facilities – VGH, UBC Hospital, and GF Strong – there are 7,300 employees and a $253 million payroll (not including benefits), representing one of the largest employers in the province.

2. Centres of Excellence and Specialty Care – There are many internationally-recognized centres of excellence at VGH, UBC Hospital, and GF Strong that have become leaders in North America in their field.
Cancer Surgery – For all types of cancers including prostate, lung, breast, ovarian, eye, skin, spine, bone, and brain.

Infectious Diseases and Immunology – World class leaders in identifying and addressing early emerging epidemics, and conducting leading-edge research and treatment for infectious diseases for all medical conditions and transplants.

Leukemia Bone Marrow Transplant – Patients who have blood cancers such as leukemia and multiple myeloma benefit from the expertise of VGH’s L/BMT team and the accelerated research and treatments available via the Hematology Clinical Trials Unit.

Neurosciences – World leaders in Alzheimer’s disease and dementia, Multiple Sclerosis, stroke and ALS. Leading expertise in neurosurgery including brain tumours, aneurysms, and Parkinson’s surgery, and extensive collaboration with the Brain Research Centre at UBC Hospital.

Spine – Internationally-renowned experts in diseases of the spine and traumatic spinal cord injury, reconstructive surgical procedures, home of the provincial Spine Unit, care at GF Strong Rehab Centre; and complex spinal cord cancer surgeries that take between 12 to 24 hours to perform.

Urology – Early diagnosis, leading edge research, new, innovative ways to treat patients for illness and diseases relating to prostate, bladder care, kidney stones, and other men’s health related illnesses. World renowned facilities including the Prostate Centre at VGH, the Bladder Care Centre at UBC Hospital, and the new Acute Kidney Stone Centre at VGH.

Other Centres of Excellence and specialty areas include:
- Burn and Wound Care and Plastic Surgery
- Cardiac Sciences
- Dermatology
- Endocrinology
- Gastroenterology
- Geriatric Care
- Gynecology
- Kidney (Renal)
- Ophthalmology
- Orthopaedics
- Outpatient Care (Gordon and Leslie Diamond Health Care Centre)
- Respiratory and Thoracic
- Transplants
- Trauma and Emergency Department
3. World Class Research and Talent – VGH is attracting and retaining world-class talent in health care expertise. The ability of VGH to attract and retain expertise is not just about competitive remuneration. Its strength is about non-salary benefits too. VGH’s unique and compelling qualities provide medical researchers and doctors the ideal environment to do what they are passionate about – pursuing their research alongside world class talent at a site conducive to interaction and synergy. Doctors are selling doctors around the world on the merits of VGH. The Foundation plays a supporting and partnering role in recruiting and retaining talent.

There are more than 400 principal research investigators currently conducting medical research on more than 1,000 projects. The Vancouver Coastal Health Research Institute (VCHRI), through which research at VGH, UBC Hospital and GF Strong takes place, has reached and matched the landmark of $80 million in research funding in each of the last two years. Of this year’s research dollars, 75% – or $60 million – comes from competitive peer review granting agencies, with $51 million of the total from sources outside of British Columbia. This research is directly benefiting patient care.

For example, with the recent establishment of VGH’s Hematology Clinical Trials Unit – the first of its kind in B.C. – people with myeloma and other blood-related cancers who participate in the clinical trials now have access to effective and less-toxic treatments long before they are widely available.

VGH has very strong medical leadership, led by doctors who are well-respected in their fields, published widely, and in many cases, recruited from abroad. The Head of the Department of Medicine and the Faculty of Medicine, Dr. Grady Meneilly – a former Research and Clinical Fellow at the Beth Israel Hospital and Harvard Medical School – has held peer-review funding from national and provincial research agencies and has a wide reputation in studies of diabetes and carbohydrate metabolism in the elderly. The Head of the Department of Surgery is Dr. Garth Warnock, the first surgeon in Canada to successfully transplant healthy insulin-producing cells into a diabetic patient, recognized world leader in diabetes research, and co-director of the Ike Barber Human Islet Transplant Laboratory.

VGH department heads Dr. Larry Goldenberg, Dr. Harvey Lui, Dr. Fred Mikelberg, and Dr. Bas Masri, bring with them a wealth of research experience and academic distinction. Their ongoing work in fields as diverse as photomedicine and minimally invasive hip replacement surgery is indicative of the work that takes place throughout their departments – a key reason why VGH is able to attract and retain talent.

VGH’s unique qualities are attracting the interest of internationally-renowned doctors and researchers who have chosen to relocate or return to Vancouver to pursue their passion for research. Some recent recruits include:
Dr. Neil Cashman, recruited from the University of Toronto and Sunnybrook Health Sciences Centre, is a leader in neurodegenerative disease and an international expert in protein misfolding diseases. He holds the Canada Research Chair in his field.

Dr. Lara Boyd, recruited from the University of Kansas Medical Centre, is the Canada Research Chair in Neurobiology of Motor Learning.

Dr. Alan Young, recruited from the University of Newcastle upon Tyne, is the LEEF Leadership Chair in Depression Research and Associate Director of the UBC Institute of Mental Health.

VGH has retained longstanding world-class doctors and researchers such as Dr. Marcel Dvorak, who heads the VGH Spine Program and co-chairs a spine trauma study group comprised of 50 of the world’s foremost orthopaedic and spine surgeons.

Among VGH’s medical faculty, thousands of medical journal articles have been published and countless innovations and advances nurtured, reinforcing public health care here in B.C., and sharing their knowledge with colleagues across the world.

Please see Appendix I for biographical notes on some of our leading doctors and researchers.

4. Leading-Edge Equipment – the Foundation has bolstered public investments with philanthropic capital investments in leading-edge equipment that elevate the standard of care and innovation. The Foundation works very closely with the medical leadership and administration of the hospitals to establish priorities.

These investments help to attract and retain world-class physicians and researchers seeking state-of-the-art innovative equipment and infrastructure and provide the most leading-edge patient care possible.

Following are examples of the recently or soon-to-be acquired equipment that is advancing world-class health care for people in British Columbia:

- **Emergency CT Scanner**
  The images, which this scanner produces much faster than current scanners available to the ER/Trauma team, help our medical experts pinpoint the problem area, so they can quickly come up with a plan on how best to save the patient. This is especially useful in cases of multiple trauma – where more than one organ is damaged. Based on the images from the Emergency CT scanner, doctors can decide which body part requires immediate attention – especially when time is short, and caring for the injury is vital to the patient’s survival.
- **Surgical Robot**
  A new era of surgical innovation is being ushered in with the donor-funded purchase of a new, futuristic surgical robot. This robotic surgical system is expected to be operational in Fall 2007. Robot-assisted surgery offers patients fewer surgical complications, less post-operative pain, faster recovery times, shorter hospital stays and improved health outcomes. VGH will be the sole hospital in B.C. with this leading edge equipment for its patients and surgeons; our hospital will possess the most advanced of the three surgical robots of this kind in Canada.

- **Open MRI**
  A specialized, “open” MRI scanner captures images of bones, joints and cartilage while they are in motion and bearing the weight of the body – unlike conventional MRI scanners, in which the subject is scanned lying down. This innovative approach to capturing new images will allow researchers at VGH’s Centre for Hip Health and Musculoskeletal Research to study the progression of hip osteoarthritis from its earliest biomedical changes, long before structural damage is visible.

- **State-of-the-Art Gastroscopes and Colonoscopes**
  These scopes enable the detection and treatment of gastrointestinal disorders, such as pre-cancerous polyps. In many cases, this detection will mean patients will be able to avoid major invasive cancer surgery.

- **Highly Specialized “Mini” Kidney Dialysis Units**
  These dialysis units are being used in the Intensive Care Unit at VGH. They provide a level of care for critically ill patients who cannot tolerate conventional dialysis.

- **UVA1 Phototherapy Unit**
  Installed at the Skin Care Centre at VGH, this will be the first phototherapy unit of its kind in Canada; it uses a select band of therapeutic UVA light to treat patients, and represents an innovative step forward and away from broader band equipment that deploys both good and bad light. Unlike UVA1 technology, broadband does not have the capability of eliminating unwanted and potentially harmful light. A variety of skin conditions can be treated with ultraviolet therapy, including, eczema, and skin lymphoma. The use of this machine will broaden the Centre’s capabilities and expand the range of patients they can now treat, by providing new, successful treatment options.
5. Provincial Centre for Teaching – VGH & UBC Hospital provide the core of medical education in B.C., training the next generation of health care professionals. Medical students have the opportunity to learn from leading doctors and researchers in their respective fields. VGH’s evolution as a complex care centre brings significant learning benefits. VGH touches every medical resident training in B.C., and plays an increasing role in training medical students, and other health care professionals, as the level of training becomes more complex and specialized. VGH is an important asset to regional medical education centres at the University of Northern BC, UBC Okanagan, and the University of Victoria.
The Evolution of VGH

This is where VGH is today.
- Complexity of care
- Centres of excellence
- World-class research and talent
- Leading-edge equipment
- Provincial centre for teaching

It has evolved from a “Vancouver” hospital to a “BC Centre” – a pace quickened in recent years. New opportunities are presenting themselves as a result of the evolutionary process that has taken place:

VGH has grown with B.C.. Serving one of the largest population and catchment areas of any North American hospital as a centre of complex care, it has critical mass unlike any other hospital.

With critical mass, VGH has been able to extract ever-increasing amounts of research dollars from prestigious health research granting bodies like the Canadian Foundation for Innovation, the Canadian Institutes of Health Research, and the National Institutes of Health in the United States. External sources of funding, and the ongoing support of the VGH & UBC Hospital Foundation ($250 million over the last ten years), supports the creation of a first class medical team of highly trained specialists who are globally recognized for their ability to treat patients with complex diseases, and greater access to new medicines for VGH patients.

Research taking place at VGH, UBC Hospital and GF Strong is improving patient care and generating spin-offs – a perpetuating cycle that helps reinforce our public health care system. Over the last seven years, the Vancouver Coastal Health Research Institute has received 345 invention disclosures, filed 705 patents and had 144 patents issued – resulting in 78 licenses, as well as equity holdings in 11 new start-up companies. Many of these patents are for new drug therapies.
As this evolution continues, success in research and attracting talent reinforces the advantages of VGH as a world-class tertiary and quaternary complex care centre, an academic teaching centre, and an internationally recognized research and innovation hub.

Complex Care
Critical mass attracts researchers, specialists and investment. Accelerated pace in recent years.

VGH & UBC Hospital Foundation and other external funding sources
make additional investments to support world-class health care and research for people in BC.

VGH has Evolved
VGH offers new opportunities for improved health care delivery – for all British Columbians and as an economic engine.
IV. Vision for the Future

Our Foundation believes that, with appropriate support, VGH can build on its strengths and be an exciting part of B.C.’s health care reforms.

We recognize that there are significant health care funding challenges, present and future.

There has been significant growth in public health care spending in both real dollars and as a percentage of government spending. Public health care needs a sustainable delivery model built upon a sound economic foundation.

The demographic realities of an aging population, combined with in-migration, adds more pressure to the system. New equipment and medical innovations are improving the quality of, and lengthening life. We celebrate these advances but accept that they come with added costs.

From necessity, comes innovation and invention. Our Foundation strongly encourages the Province to continue using VGH as a leader in pioneering new approaches in delivering health care.

The evolution of VGH provides a compelling reason to take a new, look at VGH’s potential and opportunities – and to ensure it continues moving in a forward direction.

We have developed three recommendations for consideration in the Conversation on Health Care that look at VGH’s role in delivering public health care, generating economic growth, and its relationship with all British Columbians.

Our recommendations are our own and represent the views of the Board of the VGH & UBC Hospital Foundation, on behalf of our supporters. We are not a proxy for the health care administrators or other bodies. Rather, we are the voice of the community of supporters of VGH. Based on our observations, and our dedication to improving public health care delivery for British Columbians, we submit the following recommendations.
Recommendation #1 ~ COORDINATED COMPLEX CARE

Take a new look at the role VGH can play in delivering coordinated complex care across multiple sites.

Discussion:

In taking a new look at the opportunities for improved health care delivery through VGH, we believe the following questions should be answered as part of the Conversation on Health process:

- What is the best way to organize and coordinate the delivery of complex care among multiple institutions, that best utilizes VGH’s strengths?

- What is the best way to take advantage of the synergies of the VGH site in planning for future capital needs at other institutions, and at VGH?

A lot has changed at VGH over the years. While it has always been there to provide complex care for British Columbians, the level of care provided is more comprehensive than ever, keeping and setting the pace with medical advances. Many in British Columbia may not be aware of how unique VGH is among North American hospitals.

VGH’s evolution as a tertiary and quaternary centre, that is the safety net for B.C.’s public health care system, brings opportunities. Its substantial teaching and research function is attracting world-class talent while reinforcing public health care here in B.C. By taking full advantage of VGH in reshaping health care delivery, we can build on existing strengths.

Critical mass is a major advantage in attracting talent and delivering super-specialized health care services. Recognizing these advantages at VGH, while working with other sites to have a coordinated complex care strategy, is vitally important. Our Foundation believes coordination of complex care across multiple sites is essential to preventing duplication and dilution. Because of its role as the backstop for B.C. health care, VGH must be at the centre of this approach.

VGH has the capacity to grow. The site can physically accommodate more growth, and the institution itself can accept more responsibility to accommodate an integrated approach to support the Province. Already, VGH draws thousands of workers and patients to its precinct every day. The new Canada Line will bring mass transit to VGH’s doorstep in 2009, improving access from the airport and other transportation connections.

Maximizing the potential of VGH’s site is an opportunity – the interaction between specialists and researchers on the VGH site is a significant benefit to the medical staff and patient care.
Recommendation #2 ~ AN ECONOMIC VISION FOR VGH

VGH’s success as a centre of research, innovation, and excellence should be leveraged to create new economic opportunities for British Columbia.

Discussion:

At present, VGH, UBC Hospital, and GF Strong have 7,300 workers with an annual payroll of over $250 million. This is not a static expenditure. It is an investment in not only public health care, but in creating the foundation of new economic opportunities for British Columbians.

It is time to take a new look at the research that is taking place at VGH, through VCHRI. With over 400 research investigators and 1,000 ongoing research projects, VGH is on the vanguard of medical research in North America – skin care, spine, prostate, and urology research are examples of where VGH is a leader. VGH collaborates with other medical centres of excellence, such as the Mayo Clinic. The recruitment of world-class researchers and specialists proves this. They are lured to B.C. because of VGH’s unique scale, scope and size as a complex care centre.

A phrase used to describe the link between research and patient care is “Bench to Bedside,” transferring research from the laboratory bench to the patient’s bedside. In fact, at VGH, the phrase could be better described as “Bedside to Bench to Bedside.” With our critical mass, researchers benefit from the volume of patient care taking place across specialty areas.

Taking discoveries from the lab bench to improve patient care at the bedside is the primary purpose of research at VGH. The next step is to transfer that research to commercial opportunities. Since 2000, 11 new companies have been spun off as a result of medical research at VGH and UBC Hospitals. As an example of the benefits of made-in-BC research, in the past five years, B.C. biotech companies Angiotech and QLT have returned over $60 million to UBC as a return on investment.

Boston is an example of where complex patient care combined with medical research brings new economic opportunities. According to research compiled by Tripp Umbach, a leading US research firm on the economic impact of hospitals, Greater Boston’s teaching hospitals represent the largest and most important driver of their regional economy outpacing traditional leaders in high technology and financial services. They attract more than $1.38 billion (US) each year in federal funding.

The Foundation believes VGH can become more of an economic engine for British Columbia, and follow Boston’s example.

The Foundation envisions working with the BC Innovation Council, Life Sciences BC, UBC and other universities, Michael Smith Foundation, Genome
BC, Vancouver Board of Trade, BC Business Council, the City of Vancouver, and the Province to define a powerful vision for VGH that drives research, drives opportunity, but more importantly, reinforces public health care by attracting the best and brightest researchers in the world.

We believe that the paradigm needs to shift – that VGH needs to be seen as that economic engine, and not just a hospital. It needs to be at the heart of a strategy to develop the life sciences in B.C. That includes how the VGH site is planned for the future and how talent at VGH is connected to other life sciences cluster sites.

VGH’s ability to be an economic generator alongside other initiatives should be protected and promoted.

The Foundation is prepared to be a catalyst in moving a coordinated strategy forward. Drawing upon the diverse range of skills and business expertise on our Board and among our donors, we believe we can play a broad-minded role in helping connect VGH to the overall economic interests of the province.

For example, how can VGH be best integrated into other initiatives to build the life sciences in Vancouver and B.C.? Location is vitally important to medical collaboration and interaction and an important ingredient of VGH’s success. Coordinating a strategy that takes into account the existing strengths of VGH and being able to move human resources efficiently between research hubs would be an important ingredient to success. Connecting VGH to other sites, such as Great Northern Way/False Creek Flats and UBC, to create a seamless research corridor is critical and a consideration in planning for future rapid transit.

Our Foundation believes the economic potential of research at VGH is great and can be part of a foundation for a new generation of head offices based in Vancouver and B.C.

By having a defined economic vision for VGH, we believe we can attract even more investment dollars through the Foundation to further support public health care. Success breeds more success – and results. In addition, external funding sources can build on our existing successes to take on new challenges.
Recommendation #3 ~ VGH IS FOR ALL BRITISH COLUMBIANS

VGH should be recognized and acknowledged as a B.C. Centre – not just a Vancouver hospital.

Discussion:

VGH is not seeking to compete with other B.C. institutions. We are their backstop – where the most complex cases, catastrophic cases, and the sickest of the sick, are referred, such as most spinal trauma cases or transplants. Just like Children’s Hospital, we serve all of the adult population in B.C. when they need specialized care. The ‘buck stops here’ for health care in B.C.

Our Foundation recognizes the importance of communicating the work at VGH to the province at large. In June 2007, a four-page update on VGH was inserted in the Vancouver Sun to be followed by a broad mailing across B.C. Next, our Foundation will bring VGH’s story directly to communities around B.C. Our goal is to have more British Columbians take ownership of VGH, and understand fully how VGH is there for them when they need it, in much the same way that Children’s Hospital is recognized for its provincial mandate.

VGH’s future needs more than a communications plan. As we have outlined in this brief, VGH has a lot going for it. Its evolution as a major complex care centre and research hub brings major advantages for British Columbians.

The creation of the Conversation on Health was itself an acknowledgement that there are choices to be made in the delivery of public health care. There are two paths that can be taken – to move to the next level and continue to develop VGH as a world leader, generating advances in patient care for British Columbians, or, alternatively, to stall and lose momentum. VGH’s ability to attract talent, to attract research dollars, and be on the cutting edge of patient care depends on which path is taken.

Our Foundation believes an acknowledgement and recognition of where VGH stands today – and the many things it has to offer – is an important first step. A vision of VGH as an institution that delivers world-class patient care and research requires a forward-looking strategy that identifies and commits the resources necessary to sustain and promote VGH’s unique qualities and strengths, attracts the maximum amount of external research funding, and leverages the generous support of donors through the VGH & UBC Hospital Foundation.

We are prepared to play a partnering role with the provincial government in taking VGH to the next level.
Profiles of some of the many world-renowned VGH Medical Research Leaders our hospitals attract:

- **Dr. Michael Barnett, Hematology.** Dr. Barnett trained in Medical Oncology at St. Bartholomew’s Hospital (SBH) in London before joining the L/BMT Program of British Columbia in 1986. After spending two years back in London, he returned to Vancouver in 2003 as Head of Hematology, VGH.

- **Dr. Lara Boyd, Stroke Research.** Dr. Boyd, recruited from the University of Kansas Medical Centre, is the Canada Research Chair in Neurobiology of Motor Learning. She is a physical therapist and neuroscientist who investigates therapies that positively alter patterns of brain activity after a stroke. She collaborates with a broad team of researchers in neuroscience, neurophysiology, neuroimaging and radiology, physical therapy and rehabilitation within our hospitals.

- **Dr. Neil Cashman, Neurodegenerative Diseases.** Dr. Cashman was recruited from the University of Toronto and Sunnybrook Health Sciences Centre in 2005, and is a leader in neurodegenerative diseases and an international expert in protein misfolding diseases. He holds the Canada Research Chair in his field at UBC and is on the front line of change in the field including establishing clinical trials of stem cells to treat ALS.

- **Dr. Marcel Dvorak, Spine.** Accomplished spine surgeon, Dr. Dvorak heads the VGH Spine Program and co-chairs a spine trauma study group comprised of 50 of the world’s foremost orthopaedic and spine surgeons and regularly leads major education conferences around the globe. He took his medical training at the University of Ottawa, completed his orthopaedic residency in Vancouver and then pursued spine fellowships in London, Ontario, Bern, Switzerland and Paris, France before returning to VGH.

- **Dr. Howard Feldman, Neurology and Dr. Ian MacKenzie, Neuropathology.** Drs. Feldman and MacKenzie recently discovered the genetic cause of the second most common type of dementia in people under the age of 65. This finding is particularly exciting because the way the mutations cause dementia was unsuspected and opens the door to new possibilities. Dr. Feldman is Director of the UBC Clinic for Alzheimer Disease and Related Disorders, and Head of the Division of Neurology at the University of British Columbia. His work has been published over 175 times in peer-reviewed professional journals and texts. One of his papers in Lancet Neurology was the most downloaded for the journal on Science Direct in 2003. Dr. MacKenzie came to VGH via the University of Western Ontario.
- **Dr. J. Mark FitzGerald, Respiratory Medicine.** Dr. FitzGerald graduated from University College Dublin in 1978. He worked for two years in Lesotho, Southern Africa as a General Internist. Subsequently, he completed post-graduate training in Respiratory Medicine and Clinical Epidemiology at McMaster University. Since 1989, he has been in British Columbia, where he is now Head of the Respiratory Medicine Divisions at both UBC and VGH and Director of the Centre for Clinical Epidemiology and Evaluation, VCHRI.

- **Dr. Aziz Ghahary, Burn and Wound Healing.** Dr. Ghahary was recruited from University of Alberta and U of A Hospital in 2005. He and his team have discovered that communication among different types of cells in the skin is crucial to successful healing. The result: less scarring from burns and improved healing of wounds for patients with diseases such as diabetes.

- **Dr. Martin Gleave, Prostate Centre.** Dr. Gleave, a Vancouver native, holds the Liber Ero BC Leadership Chair in Prostate Cancer Research. He is the Clinical Director of the Prostate Centre at VGH and the founder of OncoGenex and active in clinical trials. He has published more than 150 peer-reviewed papers, currently has more than $40 million in peer reviewed funding, and is widely acknowledged as a world leader in his field.

- **Dr. Larry Goldenberg, Prostate Centre and Urologic Sciences.** Dr. Goldenberg, OBC, Professor and Head, Department of Urologic Sciences, VGH and UBC and Director, Clinical Research, Prostate Center at VGH. Dr. Goldenberg is a clinical scientist and urologic surgeon who has an international reputation. Dr. Goldenberg received his MD in 1978 from the University of Toronto, and became a fellow in Urology at the Royal College of Surgeons of Canada in 1984. Due in large measure to Dr. Goldenberg’s efforts, the Prostate Centre at VGH has become one of the largest and most comprehensive prostate-specific research, treatment and educational facilities in the world. In 1999, the federal government recognized the Prostate Centre at VGH as a Centre of Excellence.

- **Dr. Brian Kwon, Spine.** Dr. Kwon earned a medical degree from Queen’s University, then completed his orthopaedic surgical residency at UBC in 2000. Following that, he did a fellowship in adult spinal surgery at the Rothman Institute at Thomas Jefferson University in Philadelphia – one of North America’s busiest spinal cord injury centres. Upon his return to Vancouver, Dr. Kwon joined the VGH Spine Program as an attending spine surgeon and completed his PhD. Other centres in North America have indicated their interest in Dr. Kwon – he has received several attractive offers to relocate his research.
- **Dr. Harvey Lui, Dermatology and Skin Science.** Dr. Lui is Head of the Department of Dermatology and Skin Science. After studying at UBC and VGH, he completed a one-year fellowship in the world’s pre-eminent centre for photomedicine at Harvard, the Wellman Laboratories of Photomedicine. Fourteen years ago he was recruited back to Vancouver. In February 2006, his team was named Canada’s first academic Department of Dermatology and Skin Science. His next goal is to establish a presence in photomedicine by creating a world-class centre dedicated to harnessing light to improve patient health.

- **Dr. Bas Masri, Orthopaedics.** Dr. Masri is Head of the Division of Reconstructive Orthopaedics at VGH, as well as Head of the UBC Department of Orthopaedics. He graduated from UBC, and then completed a residency in orthopaedic surgery and fellowships at UBC and The Hospital for Special Surgery in New York. He returned to Vancouver in 1985. Dr. Masri was part of the team responsible for creating the “Vancouver Method” of minimally invasive hip replacement surgery. His area of practice is Adult Hip and Knee Reconstruction and Replacement and Musculoskeletal Oncology.

- **Dr. Janet McElhaney, Geriatrics and Flu.** Recruited from the University of Connecticut Health Center in 2005, Dr. McElhaney is an internationally renowned influenza researcher and holds the Chair in Research Geriatrics at UBC. One of her key projects is examining the immune response to flu vaccinations in older people.

- **Dr. Heather McKay, Orthopaedics.** With a PhD from the University of Saskatchewan, Dr. McKay is a Professor in the Faculty of Medicine, Departments of Orthopaedics and Family Practice, and Director of the Centre for Hip Health and Musculoskeletal Research. Dr. McKay is a Michael Smith Foundation for Health Research Senior Scholar. Her research targets the relationship between physical activity and bone health across the lifespan including children and older populations of women who are at high risk for osteoporosis, falls and fracture.

- **Dr. Annette McWilliams, Respiratory Medicine.** Clinician scientist Dr. Annette McWilliams was recently recruited to VGH. She came to VGH with a PhD from the University of Western Australia, to do a fellowship and has chosen to stay and pursue her research here. Her research program is focussed on the use of a novel new technology, endobronchial ultrasound, which will reduce the need for surgery to diagnose and stage lung cancer. She won a 2007 in it for life Fund Scientist Award for this research.
VGH & UBC HOSPITAL FOUNDATION

- **Dr. Graydon Meneilly, Medicine.** Dr. Meneilly received his MD from the University of Saskatchewan, interned at the Royal Jubilee Hospital in Victoria, and went on to a medical residency in the Toronto Teaching Hospital system. This was followed by two years as a Research and Clinical Fellow at the Beth Israel Hospital and Harvard Medical School. He was recruited to British Columbia in 1988. His responsibilities since his arrival at UBC and VGH have grown, with his current role being Head of the Department of Medicine. Dr. Meneilly has held peer-review funding from national and provincial research agencies from the time of his initial academic appointment and has a wide reputation in studies of diabetes and carbohydrate metabolism in the elderly.

- **Dr. Fred Mikelberg, Ophthalmology.** Head of the Department of Ophthalmology and Visual Sciences, Dr. Mikelberg has focused on the diagnosis and treatment of patients with glaucoma with research on the assessment of the optic disc in glaucoma. With more than 50 peer-reviewed publications and book chapters, Dr. Mikelberg has lectured widely on these topics around the world. He is a Past President of the Canadian Glaucoma Society and recently received the Achievement Award of the American Academy of Ophthalmology.

- **Dr. Peter Rieckmann, Multiple Sclerosis.** The recently recruited Chair, Multiple Sclerosis Research, Dr. Rieckmann comes to VGH from the University of Würzburg in Germany, where he has led a research group in Multiple Sclerosis (MS) and neuroimmunology since 1997. He is a graduate of the Medical School at the University of Göttingen. His work in B.C. as MS Research Chair begins in September 2007.

- **Dr. Lynn Stothers, Urology.** Dr. Stothers was the first woman to graduate from Urology at UBC Medical School. She is the Academic Director of the Bladder Care Centre and Associate Professor in the UBC Faculty of Medicine’s Division of Urology. Dr. Stothers is an international leader in the fight for new programs and treatments for urinary incontinence and urinary tract infections. Her groundbreaking research in the use of cranberries as prevention of urinary infections and development of non-invasive technologies to assess bladder function has received major international funding.

- **Dr. Garth Warnock, Diabetes.** Dr. Warnock is a recognized world leader in diabetes research and the first surgeon in Canada to successfully transplant healthy insulin-producing cells into a diabetic patient. After years at the University of Alberta, he joined UBC and Vancouver Coastal Health in 2001, where he is currently Woodward Professor and Head of the Department of Surgery, VGH. As co-director of the Ike Barber Human Islet Transplant Laboratory, VCHRI, he continues research in pancreatic islet cell transplantation.
Dr. John Yee, Thoracic Surgery. In 2003, Dr. Yee was recruited from the Division of Thoracic Surgery at the University of Michigan, where he directed the lung transplantation program and established himself as an outstanding esophageal and pulmonary surgeon. He is a graduate of McGill University Medical School, where he also completed General Surgery training. He then did a Cardiothoracic Surgery Graduate Fellowship at the University of Michigan. After a one-year Thoracic Surgery Fellowship at UBC, he returned to McGill, and then to the University of Michigan. Since his return to Vancouver, Dr. Yee has provided strong leadership in the lung transplantation program at VGH, the provincial centre for transplants.

Dr. Alan Young, Depression Research and Mental Health.
Dr. Young, is the LEEF Leadership Chair in Depression Research and Associate Director of the UBC Institute of Mental Health. He received his medical degree from the University of Edinburgh. He subsequently underwent postgraduate training at the University of Edinburgh and the University of Oxford. Since 1999, he has been Professor of General Psychiatry and Director of Psychiatry, School of Neurology, Neurobiology and Psychiatry at the University of Newcastle upon Tyne, as well as an Honorary Consultant Psychiatrist. Dr. Young’s research has focused on the causes and treatment of severe psychiatric disorders, particularly mood disorders.
VI. Appendix II

VGH & UBC Hospital Foundation Board of Directors

Peter J G Bentley, OC, Chair Emeritus

Richard Mahler, Chair
Ronald N Stern, Vice-Chair
Ronald L Cliff, CM, Treasurer
Avtar T Bains
Frank Barker
Richard Bradshaw
Barbara Brink, CM, OBC
Peter Chieng
Ida Goodreau
Anthony Guglielmin
Mehdi Khimji
Eugene H Kwan
Jill Leversage
Tracey McVicar, CFA
Dr Graydon S Meneilly, MD, FRCPC
Dr Dianne M Miller, MD, FRCSC
Dave Mitchell
Michael Phelps, OC
Gary Powrozniak, FCA
David Rowntree
Drinda Scott
Nancy Spooner
Anne Sutherland Boal
Dr Garth Warnock, MD, MSc, FRCSC
Bill Weymark
Doug Whitehead
Ken Woods, FCA
Susan Yurkovich
Dr Bernard Bressler, PhD

President & CEO
Ron Dumouchelle