

THE MEDICAL SCHOOL EXPANSION:  
INTERIM REPORT

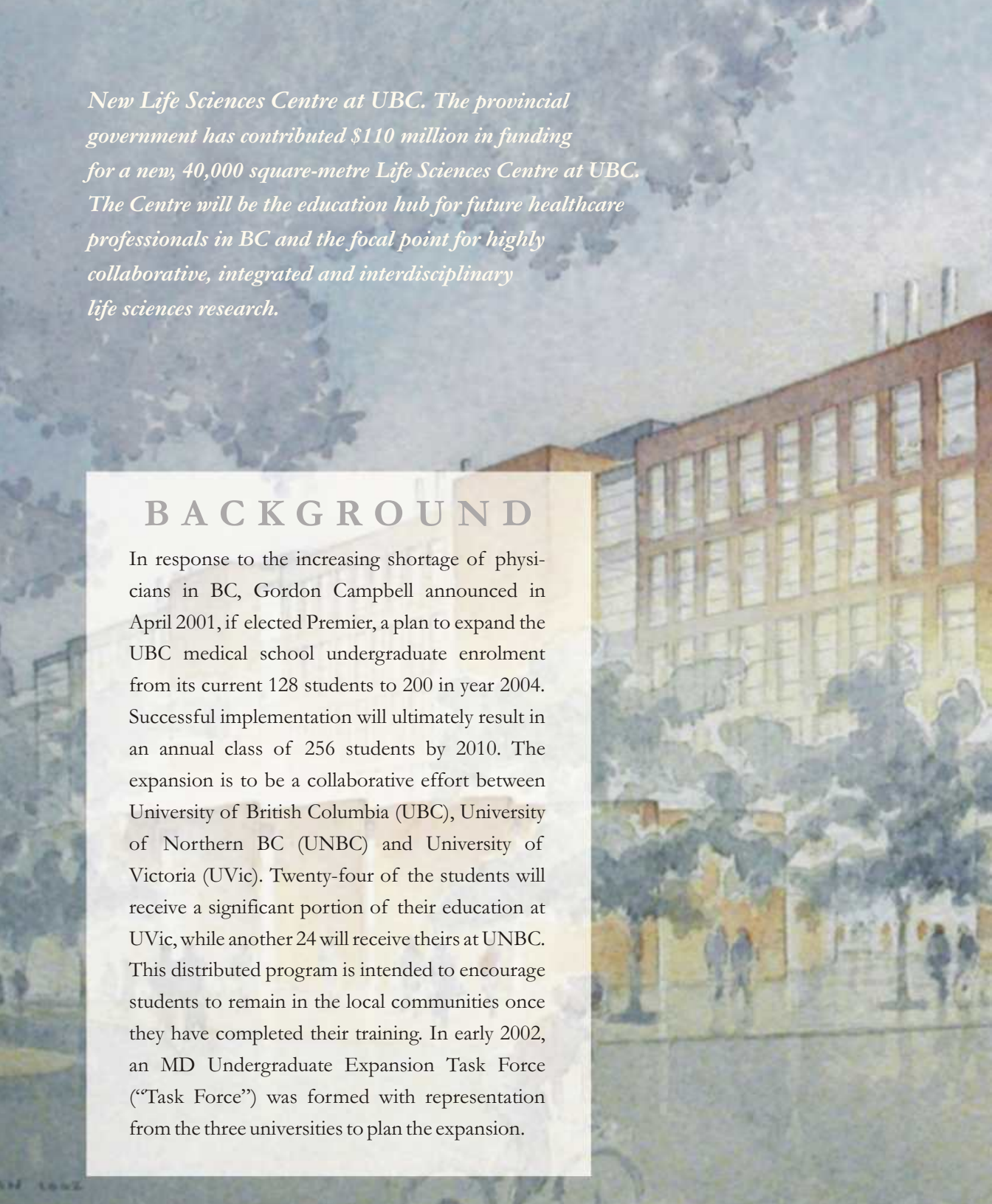


*On Time and On Target*

**THE** University  
Presidents' Council  

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**OF BRITISH COLUMBIA**

A watercolor illustration of a university campus. In the foreground, there are several trees with green and yellow foliage. In the background, a large, multi-story brick building with many windows is visible. The sky is light blue with soft, white clouds. The overall style is artistic and painterly.

*New Life Sciences Centre at UBC. The provincial government has contributed \$110 million in funding for a new, 40,000 square-metre Life Sciences Centre at UBC. The Centre will be the education hub for future healthcare professionals in BC and the focal point for highly collaborative, integrated and interdisciplinary life sciences research.*

## B A C K G R O U N D

In response to the increasing shortage of physicians in BC, Gordon Campbell announced in April 2001, if elected Premier, a plan to expand the UBC medical school undergraduate enrolment from its current 128 students to 200 in year 2004. Successful implementation will ultimately result in an annual class of 256 students by 2010. The expansion is to be a collaborative effort between University of British Columbia (UBC), University of Northern BC (UNBC) and University of Victoria (UVic). Twenty-four of the students will receive a significant portion of their education at UVic, while another 24 will receive theirs at UNBC. This distributed program is intended to encourage students to remain in the local communities once they have completed their training. In early 2002, an MD Undergraduate Expansion Task Force (“Task Force”) was formed with representation from the three universities to plan the expansion.



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An innovative “distributed” medical education program, delivered through a partnership with the University of British Columbia, the University of Northern British Columbia (the Northern Medical Program), the University of Victoria (the Island Medical Program), and provincial Health Authorities will enrich and expand students’ educational experience. New academic facilities at all three universities will accommodate the new students. All students will graduate with a UBC medical degree.

**The Challenge:** Physician supply is a source of concern when Canadians look at the availability of doctors in their own communities. Only one half of Canadians (52%) feel there are enough doctors available to meet their community’s health care needs. Furthermore, they expect the situation to worsen over the next five years. Less than one third (29%) feel that there will be enough doctors to meet the health care needs in their community in 2004.

The physician crisis is particularly acute in BC. British Columbia educates fewer doctors per capita than any other province in Canada. While BC’s population has grown by 50 per cent over the last 20 years, the output of medical graduates from UBC has not increased. Over 300 doctors leave BC or retire each year.

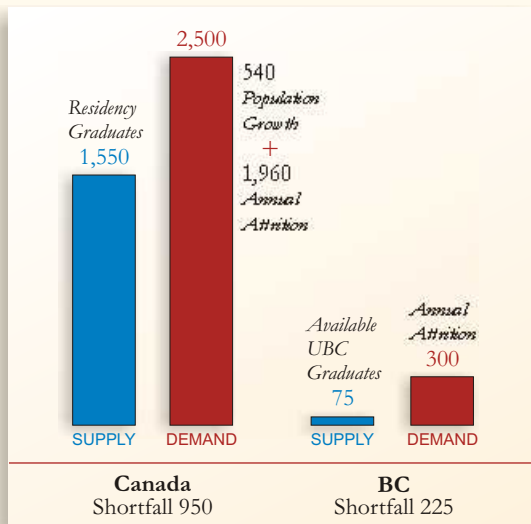


Figure 1: Canadian Physicians - Supply and Demand

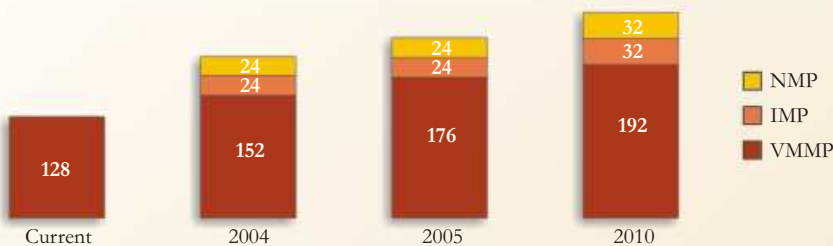


Figure 2: Proposed Changes in Student Enrolment in the UBC Faculty of Medicine 2004-2010

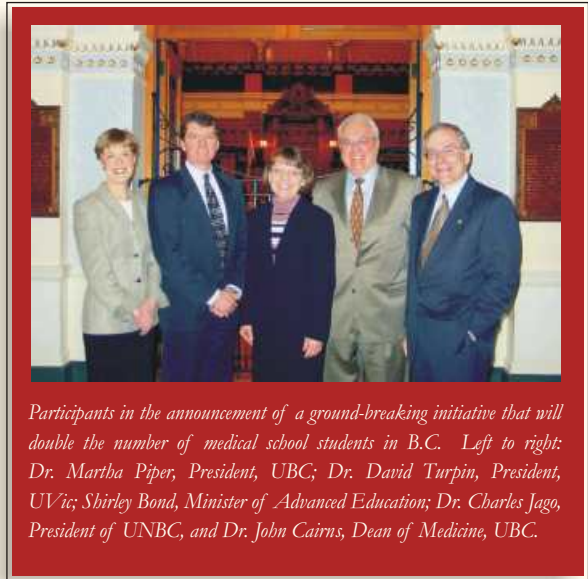
**The Premier's Vision:** “A key component of our plan to expand education and training for care givers will be the establishment of a new Life Sciences Centre at UBC, with two satellite facilities at UNBC in Prince George and the University of Victoria.”

“While medical students will be enrolled at UBC, a substantial number will receive meaningful parts of their medical training in communities outside the Lower Mainland. At least 10% of the students will be located in Prince George in the rural and remote medicine program, and at least 10% will be in Victoria where the focus will be on geriatric medicine and the health needs of an aging population. Residency programs will also be met in regional hospitals throughout the province. We want residency training to become integrated with communities in a way that encourages physicians to establish themselves and remain after their training is complete.”

*Source: Gordon Campbell, April 20, 2001.*

Doubling the number of medical graduates will create numerous opportunities and benefits including:

- increasing physician supply with improving physician retention in rural and remote areas;
- creating a model for other Canadian jurisdictions;
- contributing to meeting federal commitments and recommendations for health care;
- responding immediately to the recommendations of the Romanow and Kirby reports in ways that advance the federal Innovation Strategy;
- building regional capacity in BC, and
- building a provincial network of integrated health education, research and service.



“This provincial investment in medical education opens up a wonderful opportunity for the young people of British Columbia, whether they be from the cities, the north, small towns, or aboriginal communities.

Through the university partnerships and the involvement of physicians as teachers throughout BC, this expansion will benefit the people of BC no matter where they live. The collaboration between the universities is opening new spaces in medical school faster than new freestanding programs could do, and each university is bringing its areas of strength and expertise to the program, benefiting all students. BC can be truly proud not just of its vision, but also of the innovation and collaboration inherent in the development of this distributed medical education program. The MD Undergraduate Program is built on principles of student self-directed learning, integration of biomedical and social sciences, early clinical contact, information management and professional development and social responsibility.” *Source: Dr. Joanna Bates*



*Dr. Joanna Bates  
Senior Associate Dean,  
MD Undergraduate Education*

*I have worked in Prince George for more than 20 years and have experienced the very real challenges of providing healthcare in the North; challenges that have led to crises in care. In our long search for solutions, the Northern Medical Program has clearly emerged as the best single idea for developing long-term health care stability in northern and rural areas.*

Source: Dr. Bill Simpson, General and Vascular Surgeon at Prince George Regional Hospital.

The curriculum prepares students with the attitudes and skills for lifelong learning so they are able to keep up to date with changes in the practice of medicine. The current UBC curriculum will be enhanced by contributions from our partnerships with medical and educational specialists from across British Columbia.

The first two years of the four-year program teach the foundations of medicine through a mixture of small group tutorials, lectures, laboratories, interaction with patients, community-based assignments and self-study. All students in the expanded program will be

together in Vancouver for the first term after which they will be distributed over the three sites. In years three and four students are learning in clinical settings and will be based in teaching hospitals and community settings throughout the province.

A first experience of the distributed program is planned for January 2004 when we will run a “Prototypical Week”. Current first year medical students will take one week of their courses in one of the distributed sites and assist the planners with evaluating the technology and the teaching techniques that are being considered for the distributed program. The teachers involved in the prototypical week will be from UBC as well as the distributed sites. It will be an excellent collaborative opportunity for both teachers and planners.



Phase	I	II-1	II-2	III	IV	V	VI
Year	One		Two	Three		Four	
Courses	Orientation	Foundations of Medicine (68 weeks)		Rural Practice 4-8 week Practicum in Rural Communities	Core Clerkships	Advanced Clerkships	Effective Learning Skills for Medical Practice
		Clinical Skills (½day per week)					
		Doctor/Dentist Patient and Society (½day per week)					
		Family Practice Continuum (½day per week)					

Figure 3: UBC Faculty of Medicine MD Undergraduate Curriculum Planning Model



In June 2002, the E-learning and Telecommunications Subcommittee (“E-learning Subcommittee”) was formed under the direction of the Task Force to explore technology and implementation options to support the distributed program.

### ■ **Tasks and Achievements**

The E-learning Subcommittee held a series of consultation meetings with faculty and staff during the summer of 2002 to discuss needs, priorities and issues regarding the technology component of the distributed program. The Subcommittee also reviewed e-learning literature and practices elsewhere related to undergraduate MD education. In October 2002 the Subcommittee produced three e-learning implementation options reports (i.e., summary, detailed and companion), and a review report on e-learning practices in undergraduate MD education. During that time, the Subcommittee also coordinated the installation of eight videoconferencing sites for use by the various expansion planning committees (UBC, UNBC, UVic; and the following hospitals: VGH, Jubilee, St. Paul’s, Children’s & Women’s, and Prince George Regional).

*The distributed program is intended to increase the number of physicians that will eventually practice in the communities where they received the training.*

### ■ **Guiding Principles**

The E-learning Subcommittee translated the underlying philosophy and objectives of the distributed MD undergraduate program into the following guiding principles:

1. The distributed program is intended to increase the number of physicians that will eventually practice in the communities where they received their training.
2. The distributed program should be based on the UBC undergraduate MD curriculum to ensure consistency and quality of the program being delivered at all partner sites.
3. The distributed program should provide comparable learning experiences and same learning outcomes for students regardless of where they are located.
4. The same performance measures and examinations will be used to assess students regardless of where they are located.
5. The distributed program should encourage cost-effective sharing of teaching resources and expertise across partner sites.

## ■ E-learning within the Distributed Program

The E-learning Subcommittee examined a range of e-learning options to support the delivery of the undergraduate curriculum for the distributed program. Examples of key features being considered for implementation at present are as follows:

***Delivering in Real-Time*** - Key components of the curriculum will be delivered through real-time distributed lectures, labs, tutorials and seminars for large and small groups, from any one site. This will be done using advanced multimedia conferencing and interactive tools.

***Using Interactive Learning Resources and Tools*** - The curriculum will be enriched by interactive, web-based content to enhance self-directed learning. Students will use advanced multimedia tools and resources including interactive problem-based cases, videos and digital images, and online assessment tools to enhance student learning activities and outcomes.

***Linkage with Hospital and Community Partners*** - Teaching hospital and community sites will act as distributed learning centres to support students (e.g., with library and computer resources) during their clinical training. A secure and reliable high-speed network will be put in place to ensure interactive learning resources and tools are accessible by all hospital and community partner sites in the Province. Another value-added is the expected increase in the adoption and use of computers in clinical practice by tutors and physicians at these sites.

## ■ Next Steps

Since January 2003, the Subcommittee has assisted in the planning of a series of pilot projects commencing this summer to explore different technology options to deliver the curriculum at a distance. The current focus is to help organize a prototypical week in January 2004 to showcase the various facets of a typical week, including the e-learning component, in the life of the distributed undergraduate MD program from the perspectives of the students, faculty and staff. Work is also underway to design a robust IT infrastructure linking in with BCNet's high-speed broadband network for the Province.





UBC Life Sciences Building, March 28, 2003

### ■ UBC Life Sciences Building

Construction of the 40,000 square metre Life Sciences Centre began in 2002 and is scheduled for completion for the 2004 Fall term. Located immediately south of Vancouver Hospital and Health Sciences Centre, UBC site, the Life Sciences Centre will house basic science departments and teaching and research laboratories, while providing cost-effective sharing of equipment and other resources.

As the Life Sciences Centre is the central hub of the expanded and distributed UBC Medical School model emerging for BC, lecture theatres and classrooms will be equipped with sophisticated and flexible audio-visual and tele-learning capabilities. These capabilities will support both modern Medical School teaching methods and the distributed undergraduate medical school

*With this expansion of BC's medical school British Columbians are taking responsibility for educating physicians they need for their health care and will ensure that our province assumes a leadership role in health research.*

Dr. John Cairns  
Dean of Medicine, UBC

education located at the University of Victoria and University of Northern British Columbia campuses. In addition, these capabilities will provide enhanced opportunities for the Life Sciences Centre to act as a hub for the transmission and receipt of research related colloquia and seminars to and from other academic sites in BC, including both post-secondary and teaching hospital sites.

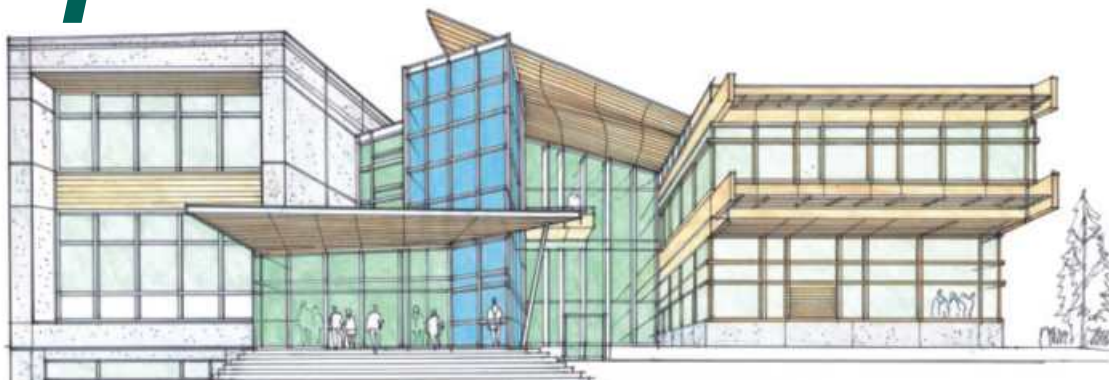
UBC is playing a shared role with its partners in planning the overall expansion of the MD undergraduate program. It also is planning the expansion of the program in the Vancouver-based Central Medical Program. This program will expand from the present 128 students in the first year to 152 in 2004 and to 176 in 2005. As well, the full cohort of students (200 in 2004 and 224 in 2005) will spend their first term in Vancouver.

This planned increase in first year class size means there will be a need for more teaching space, part of which will be provided by the new Life Sciences Centre on the UBC Point Grey campus. Additional clinical teaching space will also be required. The Faculty of Medicine is planning this new space with the Provincial Health Services Authority, the Vancouver Coastal Health Authority and with the Fraser Health Authority. There are plans to extend the development of clinical teaching sites outside of the Lower Mainland to further enrich the students' clinical education experience.

### ■ **Priorities**

One of the key tasks of the planning endeavour is the hiring of teachers for the expanded program. Faculty recruitment plans for the universities are being finalized, and the recruitment of instructors at UBC who will be involved in the first years of the program will commence soon.





*The Northern Health Sciences Centre*

### ■ **Unique Contributions of the Northern Medical Program (NMP)**

Since its inception, UNBC has educated Nurses, Social Workers, Psychologists, Educational Counsellors, and Community Health Practitioners for practice in the North. UNBC is also recognized as a strong centre of research, with a number of its research centres and institutes focusing on health and social services-related research. The addition of the Northern Medical Program, which will educate physicians specifically for rural and remote practice, builds on UNBC's expertise in health sciences education and research.

### ■ **Current status of planning for the NMP**

- A joint UNBC/UBC Search Committee will soon be recommending the appointment of a new head of the Northern Medical Program. The process involved an extensive recruitment endeavour that attracted interest from highly qualified local, national and international candidates.
- The NMP team includes approximately 25 UNBC faculty and staff, as well as members of the physician community who are working to guide the program in its formative phase.
- Position profiles for NMP faculty positions have been developed and initial faculty recruitment will begin in 2003.

- The physicians of the Northern Region have established a strong tradition of teaching UBC medical students, Family Practice Residents, as well as some specialty (Royal College) Residents. Northern physicians see the NMP as an essential step in moving toward a long-term solution for the chronic shortage of physicians in the North. The medical communities of the North are actively engaged in planning for the integration of clinical practice with the new roles and opportunities in the areas of education and research, which will begin when the NMP program begins.

### ■ Building Progress

The Northern Health Sciences Centre will be a showcase for the use of wood in construction, while also utilizing state-of-the-art technology in the delivery of medical education. The building will contain labs, classrooms, small seminar rooms, and a student common area. Construction of the 4,000 gross square-metre building will begin in spring 2003 and will be ready to accept the first 24 NMP students in 2004.

- Site preparation for the Northern Health Sciences Centre will start the week of April 14th.
- The building will contain innovative lecture halls, problem-based learning rooms, laboratories and a number of faculty offices for the NMP. The building is situated adjacent to the Library for ease of student access and a physical link will connect the building to the Bentley Science Centre and the rest of the UNBC Campus.
- The wide variety of health care facilities in the North will provide a varied menu of experiences to prepare trainees in settings similar to those in which they will eventually practice. The motto “*Training in the North for the North*” is an underlying principle of the NMP.





*Island Medical Program Building*

■ **Unique opportunities that the Island Medical Program (IMP) has to offer**

Uvic is BC's second largest educator in the health sector, through its programs in Nursing, Social Work, Psychology, Health Information Science, and other allied health programs. UVic houses exemplary interdisciplinary research centres, including the Centres for Biomedical Research, Community Health Promotion Research, and Aging -- which have received international recognition for research related to health.

UVic will soon house the Centre for Addictions Research of BC, funded by the BC Addictions Foundation. The major research projects of the Centre will be jointly determined in its first year of operation in collaboration with our partner universities (UBC, SFU, UNBC) and community partners, including the Vancouver Island Health Authority.

The IMP builds on these strengths, providing increased opportunities for training in areas such as the care of an aging population, and interdisciplinary community based care for persons of all ages in small, mid-size and sometimes remote communities.

## ■ Current developments

- A joint UVic/UBC Search Committee is currently selecting the leader of the IMP following a comprehensive recruitment campaign that drew local, provincial, national, and international interest. The Island-based IMP team has grown to include more than 25 faculty and staff from UVic and a six member Physician Advisory Subcommittee representing Island clinicians.
- A draft recruitment plan has been developed that outlines the types and numbers of faculty members required to provide an excellent educational experience for IMP students. Recruitment is planned to begin in 2003. More than 250 physicians from across Vancouver Island and the Gulf Islands have expressed unsolicited interest in teaching in the IMP. In addition, the IMP Clinical Coordinator and other IMP staff are working systematically with Island physicians to identify and secure the types and numbers of clinical teachers needed for IMP students.
- Regular updates on IMP planning appear on the IMP website ([web.uvic.ca/imp](http://web.uvic.ca/imp)) and through periodic mailings to all Island physicians. Informing and engaging Island-based physicians in the IMP is essential to our success, and to recruiting rural physicians interested in teaching undergraduate medical education.
- Ground clearing has begun on UVic's campus for the new 4,440 gross square-metre Island Medical Program Building Project with construction beginning by July, 2003 and completion scheduled for October, 2004.
- The building will contain lecture halls, problem-based learning rooms, laboratories, and faculty offices necessary to support the IMP. A physical link will connect the building to the Cunningham building at UVic, encouraging collaboration between IMP and existing UVic Science faculty and permitting some economies of scale.
- Teaching space for IMP students at Vancouver Island Health Authority hospitals is currently being planned.





## ■ A Vision of Improved Medical Services for the People of BC

The Premier articulated a clear vision for improving the access to medical service for the people of BC. The vision anticipates a significant improvement for rural and remote communities, geriatrics, and Aboriginal issues.

This Interim Report clearly notes the significant accomplishments in the last 20 months yet much more work lies ahead. The first student intake for the new expanded medical program will enter in 17 short months (September, 2004).

While the complexity of the initiative and the timelines are challenging there are several important advantages which have supported the progress to date and which allows the universities to speak with confidence about the final outcome. Among these strengths are:

- the excellence of the UBC Medical Program, upon which the expansion is being built;
- UNBC's close links to the communities of the North and the commitment to focus on the needs of rural, remote and aboriginal communities;
- the interdisciplinary approach to the delivery of health education at Uvic and the commitment to research into improving care for persons of all ages, including an aging population, and
- the spirit of cooperation and collaboration which has developed between the three universities.

It is the spirit of cooperation and collaboration among the universities that has allowed the universities to accomplish so much in such a short time period and to report that the initiative is “On Time and On Target”. It is that same spirit which allows us to state that with the continued support of the province the expansion of medical education in BC will meet the challenge given to the universities by the Premier and will allow him to achieve his vision.



*The Vancouver Island Health Authority is excited by the prospect of an enhanced role in the education of the next generation of medical students, many of whom we hope will continue with practice opportunities that Island communities have to offer.*

Source: Rick Rogers, Chief Executive Officer, Vancouver Island Health Authority

## Next Milestones

Applications available for 2004 class . . . . .	June 2003
Acceptance letters sent to successful applicants . . . . .	May 2004
Additional students (72) start classes at UBC . . . . .	August 2004
UBC Life Sciences Centre opens . . . . .	August 2004
Northern Health Sciences Centre at UNBC opens . . . . .	August 2004
Medical Sciences Building at UVic opens . . . . .	Fall 2004
NMP students (24) start classes at UNBC . . . . .	January 2005
IMP students (24) start classes at UVic . . . . .	January 2005
Additional students (24) start classes in Vancouver . . . . .	August 2005
NMP students in northern clinical setting . . . . .	Summer 2006
IMP students in island clinical setting . . . . .	Summer 2006
First expanded class graduates as MDs (200) . . . . .	Spring 2008
Second expanded class graduates as MDs (224) . . . . .	Spring 2009

*The distributed medical program is a major education initiative of national significance. It will create the ability to educate physicians for the diversity of British Columbia's regions and communities. It will set the standard for other provinces to follow.*

Source: Dr. Charles Jago, Chair, The University Presidents' Council



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