

News Release

Innovative surgical procedure pioneered at St. Paul's Hospital saves lives of cardiac patients unable to undergo open-heart surgery **Procedure taught to doctors around world via state of the art Virtual Teaching Laboratory**

VANCOUVER, OCT. 20, 2011 – Dr. John Webb and his colleagues at Vancouver's St. Paul's Hospital are making open-heart surgery a thing of the past, saving the lives of patients not viable for conventional heart surgery, such as former Vancouver city councilor and Order of Canada honoree May Brown.

And thanks to St. Paul's Virtual Teaching Laboratory (VTL), Dr. Webb has been able to help save yet more lives by teaching this technique to cardiologists and cardiac surgeons from more than 25 other countries.

"Since Dr. Webb and his team developed the first routinely successful percutaneous valve replacement in 2005, more than 500 successful surgeries have been performed at St. Paul's Hospital. This medical advancement is yet another example of the pioneering achievements of this hospital, as is the VTL which enables Dr. Webb and his colleagues to instruct cardiologists and cardiac surgeons around the world in this procedure," said Dianne Doyle, president and CEO of Providence Health Care.

Dr. Webb, director of interventional cardiology at St. Paul's Hospital and McLeod professor of heart valve intervention at UBC, is the first interventional cardiologist to develop successful methods of percutaneous aortic valve replacement as commonly used today. Dr. Webb performed the procedure for the first time in January 2005. More than 10 hospitals in Canada are now performing this procedure. The Edwards SAPIEN transcatheter heart valve frequently used in the procedure received Health Canada approval in June. FDA approval in the US is expected this fall.

Instead of the traditional valve replacement technique of open-heart surgery, Dr. Webb's procedure uses a replacement valve that can be threaded up to the heart using a special catheter inserted into the patient's artery just above the leg. It's available on a limited basis for patients with significant valve problems who would not be able to endure open-heart surgery. Until this procedure became available, there was no other option for cardiac patients who, when the aortic valve became leaky or blocked, might suffer angina and heart failure.

May Brown, 91, who devoted her life to physical activity and community service wouldn't have been able to continue without Dr. Webb and his revolutionary procedure. The former UBC physical education instructor had enjoyed walking, hiking, skiing and other activities until finding herself short of breath on a routine walk through Pacific Spirit Park last year.

Upon investigation, a heart murmur was detected and a heart surgeon pronounced that, given her history of esophageal cancer, she was not a candidate for open-heart surgery. St. Paul's Hospital directed her to Dr. Webb who advised her that she would be a good candidate for his procedure.

"Up until I had the surgery, I found myself deteriorating, had to be sure I had someone with me on a walk, found I had to hold onto railings all the time and be careful on steps. I could see how, if I didn't have the procedure, I would have to keep pulling back and diminishing. However, once I had the procedure, I was discharged within



five days. My recovery was good and I'm back to my previous fitness level and can go uphill without puffing. I've got my life and confidence back. I'm most grateful to Dr. Webb and St. Paul's. They are fantastic," said Brown.

"According to the findings of the recent PARTNER* trial, there are 20 per cent more deaths in patients with severe aortic valve disease after one year who don't undergo this surgery than in those who do – the largest reduction of mortality of any heart therapy ever," said Dr. Webb.

Recovery time from this surgery is shorter than for open-heart surgery as the heart/lung machine is not involved. Patients may be discharged from hospital as early as within two days of the procedure. Increasingly, younger patients are being targeted for this surgery, including some patients in their 40s for whom open-heart surgery is not an option.

Dr. Webb started on the ground floor with percutaneous valve treatments in the late 1980s and saw possibilities to expand these sorts of therapies. Many people worked with him to put together the puzzle. He attributes the cooperative – as opposed to competitive – environment fostered at St. Paul's Hospital as conducive to pioneering new medical advances.

"We first proved that we could perform this surgery on patients who couldn't have surgery. Then we proved it's better than open-heart surgery in many high risk patients. Over the next 10 years, we hope to prove that it's the best surgery in most patients requiring valve replacement," said Dr. Webb.

An acknowledged world leader in percutaneous valve replacement, Dr. Webb performs five of these surgeries a week, having completed more of these procedures than any other individual worldwide. Prior to the advent of the VTL – which offers real time, high definition broadcasts of surgeries – Dr. Webb spent one-third of his time criss-crossing the globe to teach in person. Now Dr. Webb and his fellow cardiologists and cardiac surgeons are able to help others save lives without ever having to leave the hospital.

The VTL is facilitated on any given day by four to eight members of St. Paul's Hospital's Media Services and Telemedicine Department and provides unprecedented, interactive access to the innovative work of the specialists at the hospital. It affords viewers the benefit of live, two-way communication with the cardiac team, as well as unobstructed views of high definition images on multiple screens, enabling viewers to see camera views, medical imaging, patient vitals, angiograms and more – none of which would be possible in a crowded operating room setting.

The VTL will broadcast live cases to cardiologists and cardiac surgeons attending this week's Canadian Cardiovascular Congress (CCC) at the Vancouver Convention Centre.

St. Paul's Hospital Foundation is currently working to raise at least half a million dollars for the state of the art VTL. For more information on how you can help expand teaching of innovative procedures at St. Paul's, call 604-682-8206 or visit www.helpstpauls.com.

About Providence Health Care

[Providence Health Care](http://www.providencehealthcare.org) is one of Canada's largest faith-based health care organizations, operating 16 facilities within Vancouver Coastal Health. Guided by the principle "How you want to be treated," PHC's 1,200 physicians, 6,000 staff and 1,500 volunteers deliver compassionate care to patients and residents in British Columbia. Providence's programs and services span the complete continuum of care and serve people throughout B.C. PHC operates one of two adult academic health science centres in the province, performs cutting-edge research in more than 30 clinical specialties, and focuses its services on six "populations of emphasis": cardiopulmonary risks and illnesses, HIV/AIDS, mental health, renal risks and illness, specialized needs in aging and urban health.

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*PARTNER Trial, see New England Journal of Medicine article, Oct. 21, 2010, <http://www.nejm.org/doi/pdf/10.1056/NEJMoa1008232>