the person reaches hospital. — *Sonia Toews*, Heart and Stroke Foundation

Women reminded of heart disease's heavy toll

Last September, the Tai Kwon Do lessons, therapeutic massage, tips on surfing the Internet, blood pressure testing and instructions on giving up smoking made the Ottawa Congress Centre look a little like a freshers' fair during initiation week. But the crowd milling around the 52 booths were there for their health, not their social lives. At the first-ever "Hug Your Heart" day, close to 300 women were taught about cardiovascular disease and ways to prevent it. More sessions will follow in other parts of the country.

In Canada, 7 times more women die of heart disease than breast cancer, but most women aren't aware of this, the risk factors in their own lives, or heart attack symptoms. What's more, physicians are more likely to miss the warning signs among women than men. "We want to do for heart disease what the pink-ribbon campaign has done for breast cancer," said Barbara

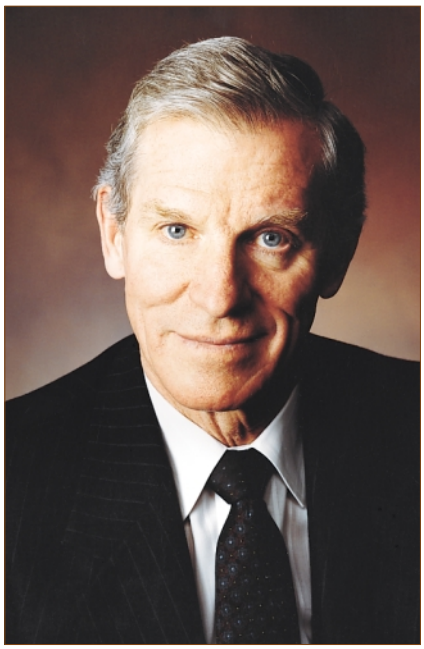
Queen's researcher honoured for breakthroughs in cardiology

Dr. John Parker, one of the first Canadians trained in the techniques of cardiac catheterization and a central figure in the evolving story of nitroglycerin tolerance, was honoured recently for his contributions to research involving nitrates. Parker, who has retired from the Kingston General Hospital and Queen's University in Kingston, Ont., continues his research in cardiology and maintains a consulting practice at the Kingston General.

Parker, a Queen's graduate who began his clinical practice in Kingston in 1961, was named director of the cardiovascular laboratory at Queen's a few years later. "In 1963 we started doing coronary angiography," he said. "We were the second centre in Canada to develop that technique — the Toronto General had done 30 or 40 patients when we initiated our program." He also helped establish a busy angiography training program.

His research endeavours initially focused on cardiac changes associated with angina. Using newly developed catheter techniques he was able to demonstrate that left ventricular function was markedly impaired during periods of induced angina. If sublingual nitroglycerin was given before the onset of anginal pain, left ventricular function remained normal and anginal pain was prevented.

Fifteen years ago he decided to study nitrates taken orally because "there was a lot of controversy as to whether they were absorbed enough, remained active after they were absorbed, or whether there was any clinical effect." He found that, initially, a single morning dose of isosorbide dinitrate (ISDN), the most commonly used nitrate at that time, was effective in improving exercise tolerance for 8 hours. However, after 2 weeks of 4 daily doses the efficacy was reduced by about 50%, and no clinical effect could be demonstrated after 2 hours.



Dr. John Parker: an impressive career

"We saw that each dose [as high as 120 mg] was effective for 8 hours, but after the short period of sustained therapy the doses had the same diminished effect, indicating tolerance." It was later discovered that if the evening dose was eliminated, the pattern of response to ISDN improved significantly. "That laid the groundwork for a change in prescription pattern to reduce the magnitude of the tolerance problem," said Parker.

In the 1980s transdermal nitroglycerin patches, which were designed to be worn continuously, were introduced. "Many of us, knowing that tolerance developed with continuous oral ISDN, were sceptical," he said. In fact, in a treadmill study he showed that continuous-patch therapy was no better than placebo after 2 weeks. Intermittent therapy with a 12-hour-on and 12-hour-off period seemed to be the answer.

In a clinical trial with 240 patients, Parker demonstrated that a 12-hour patch application improved exercise tolerance even after 28 days of therapy. The pattern of response was stable for dosages from 0.2 to 0.8 mg per hour, and no problems were encountered during the period drug levels were low. This study led to the standard practice of using intermittent dosing for transdermal nitroglycerin to prevent tolerance. — © *Wendy Wilson*