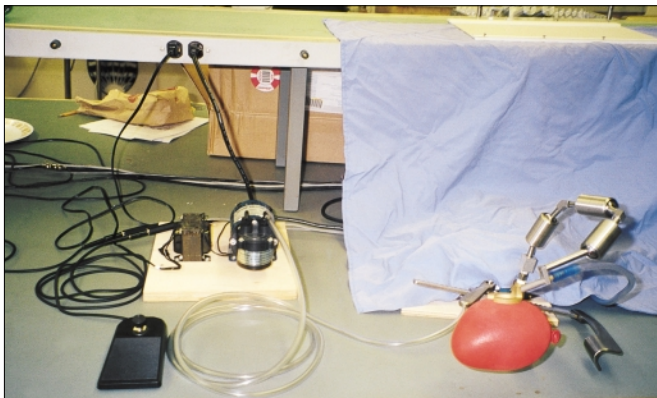




UBC gets to heart of problem

Researchers at the University of British Columbia have designed a device that stabilizes cardiac tissue during open-heart surgery and avoids cardiopulmonary bypass procedures. The HeartStabilizer was conceived by Drs. Sam Lichtenstein and Kassem Ashe, surgeons at St. Paul's Hospital in Vancouver, and the design work was done by Dr. Tim Salcudean, associate professor in UBC's Department of Electrical and Computer Engineering, and Terence Gilhuly, a graduate student. It is believed to be the only device of its kind in the world.



UBC's HeartStabilizer

The stainless steel unit, which weighs less than 1 kg, enables surgeons to operate and suture while the heart continues to beat during bypass grafting surgery. The primary benefit is that procedures can be carried out without using cardiopulmonary bypass. The researchers say that heart-bypass procedures damage blood cells and that patients who receive them spend an extra 3 days in hospital, adding substantially to the cost of care. The HeartStabilizer is easily mounted to a chest retractor and moves with the heart, reducing the risk of injury from the unit if the patient moves during surgery. The unit can be quickly turned on and off using two foot pedals, and can be fully sterilized.

The tissue holder has been tested on pigs and more animal tests are planned for the next few months. Developing a workable, easy-to-use system presented the main challenge, says Salcudean. He spent 18 months observing operations and refining the design with Gilhuly. The only similar product available is much more cumbersome than the lightweight HeartStabilizer, he says.

Development was funded by Canada's Institute of Robotics and Intelligent Systems. Gilhuly is now seeking commercial support for the device, with Lichtenstein and Ashe acting as consultants. — © Heather Kent

Canada spends much more for similar health care results, UK dean says

Dr. Peter Bundred, the recently appointed dean of health sciences at Liverpool University, says Canada outspends the UK when it comes to health care but has little to show for the extra money. Bundred made the comments during a recent seminar on primary health care reform at the University of Ottawa's Health Sciences Centre. "How come someone from a health care system judged by the American literature as the crappiest in the world has been invited to come and talk about that system in Canada?" he asked with a rhetorical flourish. The answer, apparently, is that Bundred has thought his way through one of the most difficult challenges facing health care providers: how to dein-

stitutionalize health care while reconceptualizing an Industrial Age model for the Information Age in which we now live.

With the Industrial Age model, he explained, resources and respect are accorded to tertiary, secondary and primary medical care, while the whole area of informal health care is ignored. However, no developed country can afford to continue in this direction, since it is rapidly becoming too expensive and it does not solve problems related to population health. Bundred noted that Canada spends 2.7% more of its gross domestic product on health care than the UK, yet it is not clear what added value it is getting for the extra money. Indicators such as infant

mortality and life expectancy are the same on both sides of the Atlantic.

In an Information Age model, Bundred continued, the "triangle of health care" is inverted. The apex of the system — tertiary, secondary and primary medical care — receives fewer resources and less encouragement, while services and networks outside the formal medical system get boosted. In this sea of "informal" contacts Bundred included individual self-care, friends and family networks, self-help groups and complementary medicine. "We must discourage spending on hi-tech hospital care, which is often poorly researched, and encourage people to

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