

# Ideas on the Edge



## From Silos to Corridors

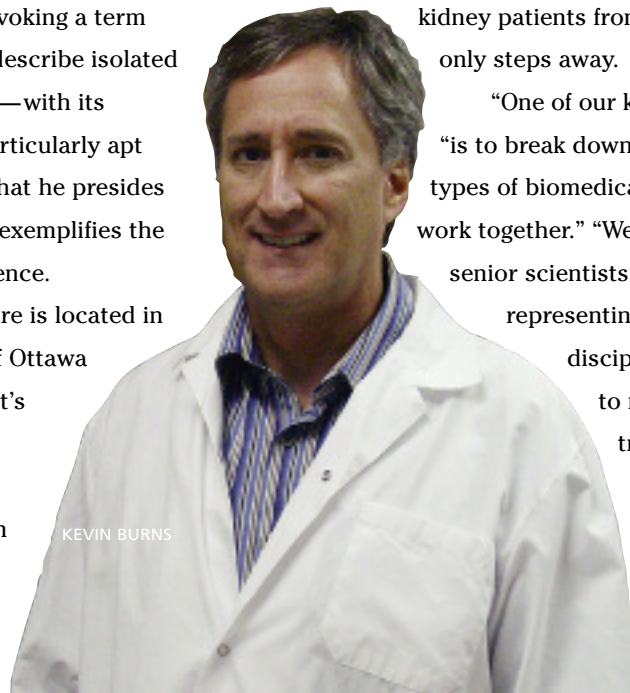
KEVIN BURNS DIRECTS A NEW KIND  
OF RESEARCH CENTRE AT THE UNIVERSITY OF OTTAWA  
THAT BRINGS SCIENTISTS TOGETHER  
WITH EACH OTHER—AND WITH PATIENTS.

“Kidney research used to be done almost entirely in silos,” says Dr. Kevin Burns, invoking a term much in favour these days to describe isolated enterprises. But the metaphor—with its architectural roots—seems particularly apt when Dr. Burns uses it, given that he presides over a newly built facility that exemplifies the very opposite approach to science.

The Kidney Research Centre is located in a new wing of the University of Ottawa Health Sciences Building, and it’s anything but a silo. Scientists representing a number of disciplines work side by side in

its open concept labs. And perhaps most importantly, kidney patients from The Ottawa Hospital are only steps away.

“One of our key goals here” says Dr. Burns, “is to break down barriers between traditional types of biomedical research so that we really work together.” “We” in this case comprises six senior scientists and their post-doc associates, representing a remarkable range of disciplines. From animal modeling to molecular studies to clinical trial design, their areas of expertise are complementary, enabling each researcher to



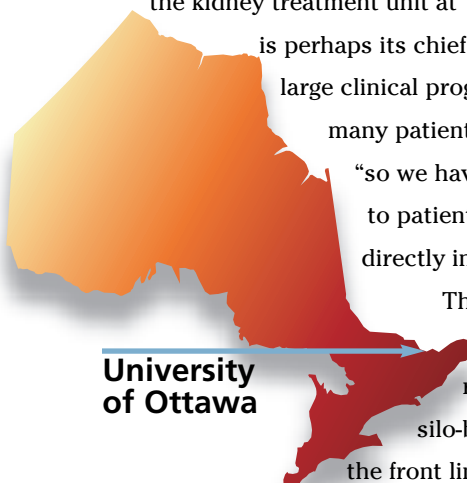
KEVIN BURNS

provide a resource for the others. In this kind of collaborative setting, work is moving forward on several fronts, including the relationship between diabetes and kidney disease, and the effect that kidney disease has on blood vessels and blood pressure, and vice versa.

The 15,000-square-foot facility, funded in part with a grant from the Ontario Innovation Trust, boasts a complete range of the sophisticated equipment required for fundamental biomedical research. But in many



ways, the location—a few steps down the corridor from the kidney treatment unit at The Ottawa Hospital—is perhaps its chief asset. “There’s a very large clinical program here, with many, many patients,” explains Dr. Burns, “so we have excellent access to patient materials to study directly in the lab.” The proximity of the hospital also gives research scientists a silo-busting perspective on the front lines of kidney treatment.



Three of the six senior scientists also take care of patients. And in an innovative program established in 2007, all new post-doctoral fellows—usually scientists with no formal medical training—are offered the opportunity to spend a week on the kidney wards, where they interact with patients and are exposed to the

realities of clinical work. “We don’t expect them to become physicians,” says Dr. Burns, “but they learn the language of the clinic. And it allows physicians to hear more about what’s going on in the lab and appreciate that side.”

At every turn, concept and clinic are closely connected at the Centre, and that tends to keep the

**RESEARCH THAT MATTERS**  
REAL-WORLD BENEFITS FOR ONTARIANS:  
• new treatments for kidney disease and related illnesses

reason for research in clear focus. “I spend a fair amount of my time caring for patients with kidney disease—about 25 percent at the bedside,” says Dr. Burns. “That’s always been my driving force.”

**Project:** Infrastructure for Kidney Research Centre  
**Institution:** University of Ottawa  
**Research Sector:** Health Sciences  
**Principal Investigator:** Kevin Burns  
**Trust Investment:** \$3,451,485  
**CFI Investment:** \$3,451,485  
**Total research investment from all sources:** \$8,629,611



## Infrastructure for Innovation About the Ontario Innovation Trust

The Ontario Innovation Trust was created in 1999 by the Government of Ontario to invest in research equipment and facilities at Ontario’s universities, colleges, hospitals and other non-profit research institutions. The Trust is governed by a volunteer Board of Directors, according to the terms of a Trust agreement established by the Ontario government. A small permanent staff looks after day-to-day operations.

Since its inception, the Trust has committed almost \$843 million to strengthen Ontario’s position in the global marketplace of ideas. This represents more than a third of the \$2.44 billion in total funding that has been invested in Trust-supported projects.