

# THE FUTURE IS WIDE OPEN



**Things look exceptionally promising for stem cell science, says one of the few Canadians who sees it from both the business and biology angles.**

When Dr. Allen Eaves, President of Vancouver-based STEMCELL Technologies Inc., looks into the future of stem cell science, he sees very good things.

“This is a wonderful time,” says Dr. Eaves, one of Canada’s most respected researchers in the field of chronic myelogenous leukemia who, almost three decades ago, helped found the now-world-renowned Terry Fox Laboratory for cancer biology.

“We are on the verge of huge new developments. The payoffs are not going to be immediate; we are slowly accelerating and there is a lot of work involved. But it will totally change the way people live and think about life.”

Dr. Eaves’ assessment carries considerable weight because he represents a rare hybrid: a bioscientist who is as pragmatic as he is visionary. Some 25 years ago, when he had trouble securing a supply of a hormone needed for cancer investigations at his Terry Fox Lab, he decided to manufacture it himself. Then sell it to other researchers. Then manufacture and sell other research-ready materials.

While the business operation helped buy equipment and fund young scientists, it soon grew too big for the Terry Fox Lab. So, in 1993,

## AT A GLANCE

**Who** – Dr. Allen Eaves, President of Vancouver-based STEMCELL Technologies Inc. and Senior Scientist at the Terry Fox Laboratory, BC Cancer Research Agency.

**What** – His company manufactures the “picks and shovels of the stem cell gold rush” and helps advance research into regenerative medicine around the world.

**Recent Activity** – Competes with multi-billion-dollar U.S. enterprises. Recently launched AggreWell™, a tool to ensure vitally important consistency in embryoid bodies used to induce cell differentiation, developed by SCN investigators Dr. Peter Zandstra and Dr. Mark Ungrin. Quote – “What our investment in the Stem Cell Network has done is let Canadian scientists know that we are very interested in their work. The result is that people are supportive of what we’re trying to do. We have a good relationship with members of the Network.”

Dr. Eaves mortgaged his house and started STEMCELL, a thriving company that, as he puts it, “supplies the picks and shovels for the stem cell gold rush” to scientists around the world.

While he remains a senior scientist at Terry Fox, Dr. Eaves divides his time between fending off buyout offers from billion-dollar competitors in the United States (“I’m a Canadian nationalist”) and keeping STEMCELL on the leading edge of stem cell science by paying very close attention to who’s doing what in the field.

“We work with leaders in the field. We read their papers and understand what they’re doing so that we can produce products that are useful to them. It’s all about having high-quality products and getting them out there relatively quickly.”

The close relationship that Dr. Eaves and STEMCELL have forged with the Stem Cell Network has helped in this regard. His company has contributed “at least \$2 million” to the Network in the past few years and runs an annual “boot camp” to teach young researchers how to organize and operate their labs. Meanwhile, SCN investigators have been a wellspring for some of his company’s most innovative and in-demand wares.

“One of our new products, AggreWell™ (a device that ensures consistency in embryoid bodies used to induce cell differentiation) was developed by Dr. Peter Zandstra and Dr. Mark Ungrin in Toronto. It’s going great guns for us. That’s typical of our close interactions with people in academia.”

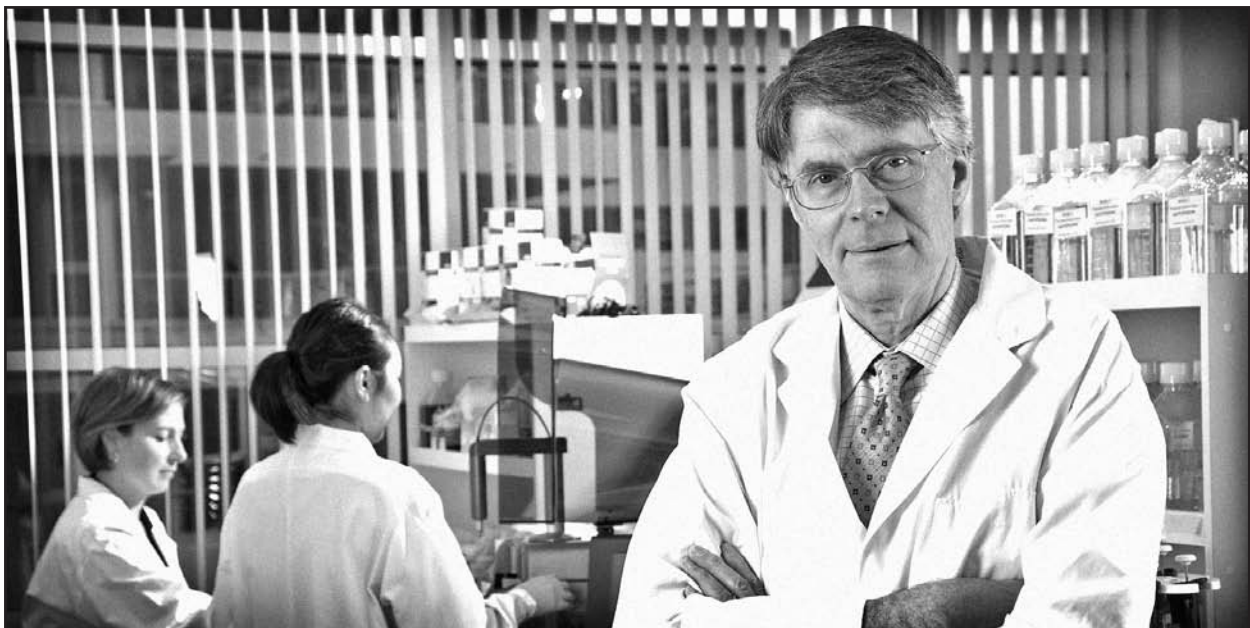
Dr. Eaves says that for STEMCELL to compete with multi-billion-dollar U.S. enterprises, product quality is paramount.

“Our products are better. We do quality control very carefully. All of the materials that go into our products are carefully selected and formulated. Everything is tested and retested. We set very high standards for all our finished products.”

But where does he see stem cell science going?

“Stem cell research is going to morph into tissue engineering and regenerative medicine. That’s going to lead us into whole new areas. Can we use stem cells to grow tissues we need? Can we, for example, develop the scaffolding that we need to allow us to make artificial kidneys? Think of what that would do. There are thousands of people waiting for kidney transplants in Canada.”

The future for STEMCELL looks just as promising.



While the recent recession has slowed most companies down, STEMCELL continues to grow, albeit not quite at the 20 per cent a year pace it was once setting, but close. The Obama administration's decision to lift the ban on embryonic stem cells will kickstart the science in the United States but, more than that, the Japanese discovery that induced pluripotent stem (iPS) cells can be created from adult skin stem cells has thrown the field wide open.

"The iPS discovery is huge. Almost anything you can conceive of is probably possible. Imagine that we can take an individual's cells and basically make stem cells. Retool them. Do genetic engineering on them. And then put them back into the patient with no rejection. That's what iPS can allow you to do."

While there are still many unknowns, Dr Eaves remains confident that medical breakthroughs will come.

"I think that's all going to get straightened around so that we can use iPS cells to patch hips or knees. And I'm in need of that, so it can't come too soon."

### **STEMCELL Technologies by the numbers**

- Employs more than 260 people.
- Sells products in 70 countries.
- Its employees have paid more than \$30 million in income tax over the years.
- Has brought in more than \$200 million in business to Canada.
- Has sales of \$40 million annually.
- 90% of its products are exported.
- Has grown at a rate of 20% a year and is still growing despite downturn in economy.



**Stem Cell Network**  
Réseau de **cellules souches**

**Stem Cell Network**  
501 Smyth Road, Room CCW-6189  
Ottawa, Ontario K1H 8L6 Canada

Phone: 613.739.6675  
[info@stemcellnetwork.ca](mailto:info@stemcellnetwork.ca)