The Lifeblood of Scientific Innovation

An interview on current issues with:
Professor Chris Eliasmith | Brain Researcher, University of Waterloo
Professor Mark Daley | Computer Scientist, Western University
Professor Andrew Krahn | Heart Researcher, University of British Columbia

What is the danger inherent in losing public funding for research?

Chris Eliasmith: We’ve actually been seeing some changes in public funding recently, which I think are actually quite detrimental to this kind of work. In particular, if I was starting my lab now, I don’t think I’d actually be able to get to where I am, because what’s been happening is a lot of funds have been shifted to be essentially under control of industry. And so for you to get funding, some corporate partner has to say, ‘yes, this is research that’s worth something to us right now.’ But the problem is that most of these kinds of long-distance, difficult questions, it’s not obvious what the application to industry is in three years. And so of course it would be terrible if we lost funding, there’s no doubt about that, but I think we’re actually seeing an erosion of funding by just shifting the control over to industry instead of to the researchers, which is already quite damaging.

Mark Daley: Every tiny little advance I make, I’m standing on the shoulders of thousands of people who came before me, and many of those are basic scientists. And it’s critical we continue to fund those people because the applied science that we like to talk about in the media, where it has an immediate economic impact, that only happens if the basic science already exists to support it. So we really need both of these things moving in tandem.

What is the impact on our healthcare system?

Andrew Krahn: Funding is obviously essential to what we do because it is incremental to how we usually take care of patients. If we don’t invest, we don’t create that culture of innovation, of posing questions, of challenging people – and healthcare stagnates.
30 years ago, somebody said, ‘Why do these people drop dead all the time? Why are they coming in with heart attacks?’ And then the association with smoking and how diabetes does that; and the gene that causes high cholesterol with families. These are all discoveries that stem from the question ‘how do we make things better?’ You know, we’re not buying iPads for Christmas – research is not a lucrative business; it’s a business for the curious.