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EDITORIAL

Canada's Crisis: Can Business Rescue Science?

In an attempt to reduce the national deficit, Canada's federal government has slashed the budgets of its science councils. Adjusted for inflation, the loss amounts to 25% over 4 years. Basic science research in Canadian universities is now like a horse with one leg injured . . . it can hobble, but not gallop. In contrast, the United States and Japan have adopted a different stance in budget planning. While recognizing the need for deficit reduction, their governments have nonetheless increased budgets for several major science programs as a critical investment in the future economic well-being of their nations.

In seeking alternatives to public funding, the Canadian government has targeted venture capital and business as major supporters of university-based research. Government portrays business as a white knight, in part because of the considerable success of the National Centres of Excellence (NCE) program established by the federal government in 1988 to link academics across the country in theme-based scientific networks. The NCE program gave university-based researchers an additional $440 million for research aimed at fostering new interactions between academia and industry. In 1994, the NCE's Neuroscience Network and the country's largest commercial bank teamed up with several other firms to establish Neuroscience Partners (NP), a venture capital fund to support the development and commercialization of discoveries in brain and spinal cord research. Subsequently, the Canadian Medical Discoveries Fund (CMDF), conceived by the Medical Research Council (MRC), was created.* Thus far, NP and CMDF have invested approximately $60 million to create 28 Canadian start-up companies. Assets in these and similar funds will soon equal the amount provided annually to university-based researchers through Canada's science councils. In other interactions with the private sector, MRC will commit up to 10% of its budget to partnerships aimed at "leveraging" the flow of private funds to research coffers. Furthermore, the councils are poised to siphon funds from their already cash-strapped budgets to make up any shortfall in government funding of the NCE program in 1997. Government's strategy robs Peter to pay Paul.

Is passing the buck to business the way to fund Canada's basic science research? Undeniably, venture capital is well suited to bring university science to the marketplace. And business has an important role to play in supporting academic research through mutually beneficial agreements with individual investigators and research organizations. But even the most visionary businesses must focus on corporate priorities, profit-making, and shareholder value. These are not the stuff of high-risk, open-ended, basic science research, in which one discovery leads to another with no clear indication of where it will end and whether it will generate marketable products. Alan Bootes, president of Pfizer Canada, has observed that "Trying to force the private sector to accept some of the burden [of funding university science] is misguided, because we [business and universities] do different things."†

Business can be an effective partner but is not a substitute for government. Government needs to remain the driving force behind research with no apparent commercial potential. It should also be the primary supporter of graduate student training, as an investment in the nation's economic vitality, and provide a steady flow of money at rates exceeding inflation, in order to maintain the consistent growth of university science. Exciting, economically valuable science that increases international competitiveness and attracts private investment emanates from a research community that is thriving, not hobbling.

Before Canada jeopardizes its scientific future and compromises its scientific community to achieve short-term budgetary solutions, it must recognize that funding of university science is both a government responsibility and a long-term investment. Without strong government support, Canada's university science infrastructure will erode, and along with it, the country's competitiveness in a world economy increasingly based on knowledge.

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