Innovation, Inc

The York administration recently announced the launch of a new research consortium, YORKbiotech. The project is intended to advance research in medical biotechnologies and IT and to aid in the "commercialization" of research at York.

According to a January 19th release, YORKbiotech is "a growing cluster of public- and private-sector members committed to promoting convergence and commercialization of research and development in Information and Communications Technologies (ICT) and biomedical technologies." The company arises from the Innovation Synergy Centre in Markham, sponsored by York, Seneca, the National Research Council, the Ontario Ministry of Economic Development, Bell, the Royal Bank, and the City of Markham, along with other "sponsors, partners and participating organizations [who] have joined in our mission through the provision of funding, services, technology, support and direct participation." (For details on ISC mission and partners, see http://www.iscm.ca/about.htm.)

At a recent CAUT conference on academic freedom, participants expressed concern about recent trends toward academic self-censorship and limits to academic freedom caused by commercial and corporate ties, rather than political and military suppression of academic freedom in earlier times. This theme is rigorously explored in Jennifer Washburn's recent study of commercial-university research links, *University Inc: The Corporate Corruption of Higher Education* (Basic Books, 2005). Her research provides some useful parameters for thinking through the YORKbiotech announcement. By the late 1970s, she explains, “several concurrent developments -- the leveling off of federal science and technology spending, the birth of biotechology, the emergence of a new knowledge-driven economy - had converged to align the interests of universities and industry as never before.” The financial, legal and administrative rush toward closer university-corporate research collaboration has led to troubling patterns that deserve special scrutiny.

First, as Washburn points out, there has been increasing pressure on universities to "repackage themselves as a source of technological innovation." Promises of enhancing the country's economic competitiveness "could not only satisfy the government's demand for 'relevance' but appeal directly to industry for further support." The move toward research commercialization has required that academic investigators "obtain joint funding from industry and work collaboratively with corporate sponsors to increase the likelihood that their federally funded research would be 'relevant to industrial goals.' "

The York NICT initiative, according to Stan Shapson, chair of YORKbiotech and Vice-President Research *and Innovation* at York University, “will serve as a catalyst for convergence of biomedical and information technology, enabling the research and commercialization of discoveries in health care.” Echoing the corporate partnerships reviewed by Washburn, Shapson claims that York's NICT will “drive new transformative technologies that will readily attract capital for commercialization and which have

exponential and multiplier effects in the economy. NICT … would increase national productivity and international competitiveness, and help to attract and maintain the best minds and companies in Canada." In this conditional future, "the best minds" never part company with "the best companies; united in the pursuit of "industrial goals;" they direct federal and corporate funding away from teaching and into practical "innovation."

Second, Washburn argues, this move toward the direct commercialization of university research has important financial implications for public investment. Through university-government-corporate partnerships, private companies profit from publicly funded research through design of research projects and control of research findings through patent, copyright and individual contracts. According to Admiral Hyman Rickover, the 'father' of the U.S. nuclear fleet and a leading opponent to the federal patent policy introduced in the U.S. in the 1980s, "giving private firms exclusive rights to inventions generated at public expense essentially required the public to pay twice for the same invention -- once through taxes to support the research that yielded the invention, and then again through higher monopoly prices and restricted supply when the invention reached the market." And a third time through tuition, if the user is a student. Through the application of patents the university is thus directly mediating the transfer of public funds to private gain.

Finally, although Washburn notes little initial interest in or opposition to new patent policy (the legislation meets government's desire for enhancing technological competitiveness without public cost, and university administrators' desire to attract private funding to university facilities), its effects can be profoundly disadvantageous to the public interest. Leaving aside the scandals associated with drug trials and medical safety, these are some challenges to research autonomy and academic freedom that arise from such agreements:

* Scientists forfeit their right to collaborate or communicate with one another after signing the confidentiality requirements of corporate sponsors; such confidentiality agreements, while fundamentally at odds with the university's mandate, have been activated in more than half of academic research sponsored by life science companies.

* The postponement or complete withholding of research publication has become more common, particularly in the life sciences, where commercial relationships have grown dramatically in recent years. Professors involved with "commercializing research" were three times more likely to have delayed publication of research (to protect proprietary information) and nearly 2 1/2 times more likely to have refused to share information with other university scientists.

* Corporate sponsors are frequently able to manipulate manuscripts or suppress unwelcome research results to serve their commercial interests. Far from this being an unusual event (as Oliveri has come to represent) it is a regular occurrence, rarely subject to public scrutiny.

* Academics are not subject to the same kinds of conflict of interest legislation routinely applied to lawyers, politicians or judges; they may have substantial financial interests in the outcome of their own research. Further, researchers are rarely required to disclose potential conflicts of interest, to say nothing about institutional conflicts of interest.

* Researchers involved with corporate sponsored research are frequently placed in conflict of interest with respect to their graduate teaching. Corporate sponsorship can interfere with scientists' "fiduciary duty to care for his pupil" without respect to his own benefit.

In other words, commercial research consortiums like YORKbiotech provoke important questions. A closer look at this project is not reassuring. The new executive director and chief operating officer for YORKbiotech, “"a Regional Innovation Network for biotechnology-related industry” is Dr R. Foldes, an MBA (Schulich) with financial interests in several companies and, according to York's press release,“,"a dozen patents or patents pending including three issued U.S. patents related to drug screening technologies." York's press release lauds his “leadership… in commercializing discoveries” and his ability to attract investment.

Mark Lievonen, vice-chair of YORKbiotech and president of Sanofi Pasteur Limited (a corporate investor in the project), said he is delighted by the progress that YORKbiotech has made since being incorporated last year. "With his strong research and industry background, Dr. Foldes is well-positioned to lead YORKbiotech as it acts as a catalyst in growing this important regional cluster," he said.

These appointed executives appear to have potential financial interests in the commercial success of the consortium. This represents a potential conflict of interest for the university with potentially serious implications for research integrity and academic freedom. As scholars interested in academic freedom, we have a responsibility to look into this agreement. We have to ensure that conflict of interest regulations are put in place. We need to know whether corporate or political sponsors can control the content, timing or review process of research conducted in the name of the university; whether funding for research will be conditional on such agreements, and whether there is any neutral body to oversee academic integrity, conflict of interest, and the protection of academic freedom.

One way to verify this is to ensure that the contracts made through YORKbiotech are open to public scrutiny. Is this partnership empowered to maintain confidentiality regarding research that is in part publicly funded? What research is being conducted, and what is the role of the university in providing it? What steps are being taken to defend academic freedom at York?