



CITA *of Success*

An innovative partnership in B.C. is harnessing high-tech ideas — and making them a reality.

By Wendy Stuke

Stroll through any high-school science fair, and the thought will hit you: *Wow. These kids are bright.*

But for every crop of high-school hotshots, there may be just one or two who go on to turn their big ideas into reality — into products or companies that transform, in unforeseen and often dazzling ways, the way that things get done. What is the difference?

If the answer could be bottled, Canadian business owners, academics, and bureaucrats would be buying it by the truckload.

Since it can't, technology boosters in British Columbia, with support

from the Ismaili community, have come up with a novel way to try and foster it. Launched in 1995, the Canadian Institute for Technological Advancement (CITA), is designed to nurture, encourage, and sustain the technological entrepreneurs of the future. CITA is jointly sponsored by the University of B.C., Science World, and the Vancouver Board of Trade, and is guided by several fundamental principles.

One, that Canada's future economic health depends in large part on our youth. Two, that today's entrepreneurs have an interest — some would even say an obligation — to encourage those of tomorrow. And finally, that by foster-

ing closer ties between keen students and receptive industry leaders, everybody wins, including the society at large.

Nice sentiments. (But as a high-school target audience might say, "Get real!") For CITA organizers, the challenge, then, was to turn those principles into practice. The solution? Summer camp, with a twist. Instead of sports or theatre, say, the emphasis here is on entrepreneurship. At CITA, students are introduced to advanced concepts in science, business, entrepreneurship, and computing. The program is about six weeks long, with one week dedicated to developing the "skills of success" and the remaining time devoted to practical work-study.

The participants — only 25 are chosen each year — come from across Canada. Applicants range from grade 11 to third-year university students. All have superior academic qualifications, and all possess high marks in categories that are not always as easy to assess: leadership; initiative; friendliness. That elusive something that your grandmother might have called stick-to-it-iveness. Last year's participants included Tu Pham, a B.C. Grade 11 student who rounded out his interest in computers with volleyball, soccer, and the photo club; and Rahim Karmali, whose third-year chemical engineering background

landed him smack-dab in the middle of working on revolutionary fuel-cell technology with Vancouver-based Ballard Power Systems Inc.

McDonald's Restaurants and Colliers Macaulay Nicolls, that one perhaps would not, given that they are not immediately associated with high-tech entrepreneurship.

All, however, are united by a common interest in the success of Canada's youth. For all, especially B.C. high-tech companies like Ballard, Virbrasonic, and Dynapro Systems, supporting CITA is an inexpensive insurance policy for the future.

What are the costs? In 1995, CITA's pilot year, the cost of running a student through the program was about \$700. Students, however, paid just \$150; corporate sponsors covered the balance. For their contribution, sponsors get four to six weeks of student's time through the work-study segment,



Visit: TRIUMF Nuclear Physics lab at the University of B.C.

IF FRIENDS IN HIGH PLACES count for anything, CITA has a lot going for it. The program has won the strong support from, both the academic community (1995 sessions saw representatives from 16 schools and universities from across the country) and from industry.

A list of sponsors for CITA's first year includes names like Microsoft and Compaq, which one would expect support from, along with some, like

recognition at a gala wind-up banquet, and exposure through CITA's brochures and recruiting catalogues. In these days of government restraint, which is affecting both post-secondary education and support for industry training programs, CITA is self-sustaining. And, best of all for the new program, 95 percent of last year's corporate participants have signed on for another year.

Resourcefulness, openness to new ways of doing things, strength through

strategic alliances: for technological entrepreneurs, these are important lessons. And the same qualities are prized among CITA participants.

ONCE SELECTED, students can expect hard work, brainstorming sessions with respected authorities in math and science, and an introduction to the real world of industry through a work/study placement with a local company. Broadening students' exposure, and introducing them to areas they may not previously have considered is a key part of the CITA experience, says director Abdul Ladha. "For the student, the purpose of the program is to gain exposure to industry and to develop the practical skills required to succeed," he said.

In 1995, for instance, academic sessions touched on topics including the non-polluting fuel cell technology of Ballard Power Systems, leading-edge medical research, and the pros and cons of going public on the Vancouver Stock Exchange. At the gala banquet that marked the end of CITA's first season, Dr. Fraser Mustard of the Canadian Institute for Advanced Research said of CITA: "This is an excellent, forward-thinking initiative that Western Canada has undertaken." And UBC president Dr. David Strangway said, "I can say nothing but good things about the program. It is

direct and focused, and I am very pleased to be a part of this project."

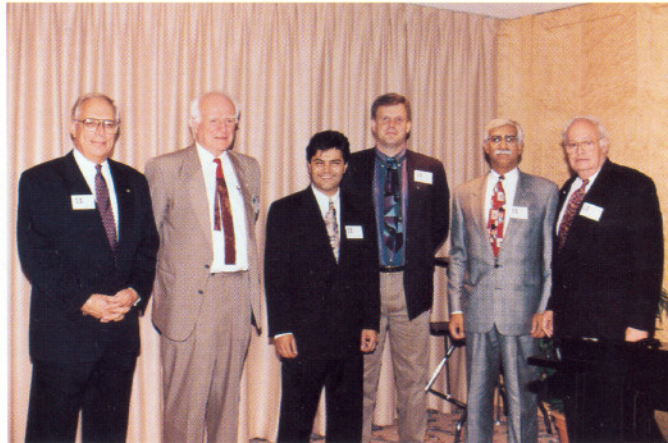
Even in its academic teachings, CITA's emphasis is practical. Lectures

are followed up with field trips; and speakers are expected to come prepared to answer lots of questions. Relationships and contacts made during these early days can help in setting up the work study portions of the program, where students are matched with companies and individuals that can serve as mentors through the summer and perhaps beyond.

Michael White, a Burnaby Secondary graduate who participated in CITA in 1995, went to MacMillan Bloedel, where he got hands-on experience hunting for glitches in new software and hardware. For White, who'd already made the decision to enroll in computer science at UBC, CITA reinforced his interests and laid the foundation for a network of future contacts.

Who knows? In a decade's time, CITA veterans may have protégés of their own. The first follow-up of CITA participants will be released in 1998, said Ladha, by which time the first participants may have completed their academic studies and moved on — either to their first jobs, their first contract, or their first attempt to create exciting new technology that may just change the world. ♦

For more information, call CITA at (604) 433-9866 or fax (604) 432-9866.



Top: CITA's Support Structure includes Robert Noon, Director of the Vancouver Board of Trade; Dr. Fraser Mustard, Director of the Canadian Institute for Advanced Research; Abdul Ladha, Director of CITA; Dr. David Vogt, Director of Science World; Firoz Rasul, President of the Ismaili Council for B.C. and CEO, Ballard Power Systems Inc.; and Dr. David Strangway, President of the University of British Columbia

Lower: CITA's graduating class of 1995