Advanced Research (CIAR).

A private nonprofit organization started in 1982 by medical-doctor/researcher-turned-entrepreneur Fraser Mustard, the CIAR is unusual in the way it supports research: The institute chooses a field, and then forms a loose network of 20 or so scientists spanning many disciplines, for whom it buys time off from teaching, and pays for postdocs, technicians, conferences, and visits to other institutions. The money goes for people, says CIAR president Stefan Dupré, "not for bricks, mortar, or equipment. We call ourselves a 'university without walls.'" The networks are particularly useful in a place like Canada, where researchers are geographically dispersed. Each network is intended to build on an existing core of scholarship in Canada—although only about half of the 160 or so CIAR members live there, Dupré notes.

"The idea is to generate groups that will excite and inspire each other through their work and their interdisciplinarity," says Martin Moskovits, a University of Toronto physical chemist who in late October was named director of the nanoelectronics program. CIAR networks "bring people together who may not meet at other scientific meetings," he adds. The new program, for example, includes physicists, chemists, materials scientists, and engineers whose research involves, among other things, quantum transport, photonic bandgap materials, lithographic and other techniques for creating nanostructures, and materials synthesis. This fall, at the first nanoelectronics meetings, says Moskovits, "you could see the venetian blinds roll up over their eyelids. Theorists were saying, 'I didn't know that was doable.' At the same time, people who can synthesize [nanostructures] don't have to do it blindly. They can work to inspire [development of] devices."

With nanoelectronics, the CIAR now has a total of nine programs in both the social and natural sciences. Physicists participate in four of the nine: superconductivity, Earth systems science, cosmology, and the science of soft surfaces and interfaces (which, however, is being phased out). Programs are reviewed every five years.

Each program receives about Can $1 million (US $673 000) a year of the CIAR's $10 million annual budget, with about half of the total being provided by private donors, one-fifth by provincial governments, and the rest by the federal government, which kicks in one dollar for every two raised elsewhere. Much of the private money was donated on a one-time basis about five years ago to rescue the institute from closing, Dupré says. And with the current round of federal funding expiring next March, the CIAR has asked the government to double its contribution, by matching outside sources dollar for dollar.

TONI FEDER

Journal Comparison Shopping Revisited

A buck spent on academic journals tends to go further when the publisher is a nonprofit rather than a commercial company. That and other conclusions of a study undertaken last year by the University of Wisconsin—Madison agree broadly with the findings of a 1988 study by the late physicist Henry Barschall (see PHYSICS TODAY, July 1988, page 56).

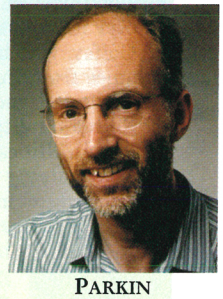
Using the same methods employed by Barschall to calculate the buyer's cost per 1000 characters and cost per citation frequency, the 1998 study evaluated 94 physics journals, as well as economics and neuroscience publications. Of the three fields, physics journals were found to have the lowest average cost, and neuroscience journals had the lowest average cost per citation frequency. Commenting on the study, AIP's executive director Marc Brodsky says "it's important to note that the 1998 findings used the institutional subscription rates paid by Madison, and that such rates could vary by country." (The study is summarized in the August 1999 newsletter of the Association of Research Libraries; for the full text see http://www.library.wisc.edu/projects/glsdo/cost.html.)

Notably absent from the 1998 study are publications issued by Gordon & Breach Science Publishers, which had sued Barschall, the American Institute of Physics (the publisher of PHYSICS TODAY), and the American Physical Society in four countries, for "illegal comparative advertising." Although Gordon & Breach was ultimately unsuccessful (except in France, where litigation is still pending; see PHYSICS TODAY, October 1997, page 93), its journals weren't included, says Madison libraries

AIP Industrial Physics Forum Held at Exxon

"Technological Innovation for Energy in a World without Walls" was the theme of this year's Industrial Physics Forum for Corporate and Academic Leaders—the new name for the American Institute of Physics' Corporate Associates annual meeting—which was held in October at Exxon Research & Engineering in Clinton, New Jersey.

More than 200 industrial and academic physicists, chemical engineers, and policymakers attended the meeting, including physicist and New Jersey Representative Rush Holt. They mingled, toured some of Exxon's research labs, and participated in talks on the economic, environmental, geopolitical, technical, and scientific aspects of energy consumption and production. For example, Exxon representatives reported on physics-based R&D efforts to find and transport oil.

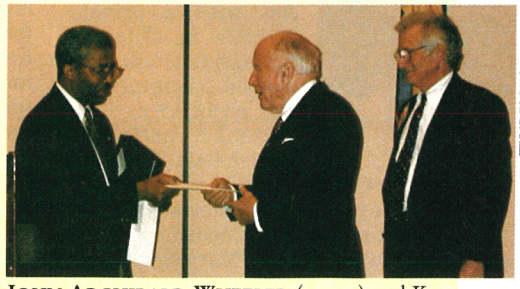


PARKIN

At the meeting, AIP awarded its 1999–2000 prize for industrial applications of physics, cosponsored by General Motors Corp and worth $10 000, to Stuart Parkin of IBM's Almaden Research Center in San Jose, California, for his "pioneering discoveries and original device demonstrations on giant magnetoresistive (GMR) sensors leading to the realization of GMR read head technology for the magnetic recording industry."

And AIP's 1999 science writing award was shared by John Archibald Wheeler, an emeritus professor of physics at Princeton University, and his former student Ken Ford (who was AIP's executive director from 1987 to 1993), for their collaboration on Wheeler's memoirs, *Geons, Black Holes and Quantum Foam: A Life in Physics* (Norton, 1998).

Next year's Industrial Physics Forum will be held in San Diego on 5–7 November at General Atomics, and will explore the theme "Physics, Energy, and Defense—Synergistic Interactions." More information is available on-line at http://www.aip.org/aip/corporate/general/meeting.html.



TIM INGOLDSBY/AIP

JOHN ARCHIBALD WHEELER (center) and Ken Ford (right) collect their science writing award from AIP's director of programs, Jim Stith.