

AAAS NEWS & NOTES

edited by S. L. BYRAND

Aptitude and Attitude Outweigh Disabilities

"Rahsaan learned the VHDL language in less than two-and-a-half weeks; it takes most engineers a couple of months," reported the head of Goddard Space Flight Center's Microelectronics Systems Branch, Nicholas Speciale. He praised Rahsaan Jackson's quick progress in grasping the Very High Speed Integrated Circuit Hardware Description Language, as well as the 23-year-old's overall success as a NASA intern: "Although he's an undergraduate, he's working at the graduate level in digital signal processing design."

One of 36 students with disabilities whom AAAS selected for summer assignments at NASA and IBM, Rahsaan is designing a high-rate multiplier circuit that will be part of a receiver that should cut the costs of picking up satellite transmissions by 80%. "We're throwing a whole lot at him at once," said Speciale, "and he's handling it extremely well." Using such descriptors as "very dedicated" and "very sharp," Speciale focused on Rahsaan's many abilities, not his singular disability, which resulted from treatment for cancer in his back when he was 2 years old; Rahsaan has had to use a wheelchair since.

"I have learned a lot this summer as an intern," said Rahsaan, a senior at State University of New York at Stony Brook. "Bottom line, there's no greater teacher than hands-on experience."

Extending Opportunities

To provide real-world experience in technical fields to bright, motivated undergraduate and graduate students who have disabilities, AAAS has partnered with IBM and NASA in two new programs, Entry Point and ACCESS (Achieving Competence in Computing, Engineering, and Space Science). The latter expands an earlier program that last year

placed seven students at one NASA research center; this year, 19 students are interning at seven NASA sites. Both programs have opened doors for students with a wide range of disabilities—including quadriplegia, blindness, and hidden disabilities such as dyslexia and bipolar disorder. All the students are committed to having careers in science and technology.

Entry Point, which is sponsoring 17 students at a dozen IBM locations, hopes to create a career pipeline to offer permanent employment to those who successfully complete two internships at IBM. It also plans to inspire other corporations to follow suit. Jean Morrell—who has been working with AAAS since February as part of IBM's Executive Faculty Loan Program—explained, "We want to expand Entry Point, bringing in other companies so more students from other fields of science can be served." For instance, if a pharmaceutical company joined the program, it could provide job access to students in chemistry who have disabilities.

Through Entry Point, AAAS can assist corporations in finding employees who match their needs and in meeting accommodations as required by the Americans with Disabilities Act, which was enacted 7 years ago on 26 July to prohibit discrimination. Despite such legal protection, said Virginia Stern, project director of AAAS's Science, Technology, and Disability Program, "there are still a lot of cultural barriers against people with disabilities who want to pursue science and technology careers."

For example, intern Francis Jackson III (no relation to Rahsaan) recounted that a high school counselor tried to dissuade him from even going to college because he has quadriplegic cerebral palsy, which also affects his speech. Said Francis, "The counselor told me

the stats were against me. He said it would be a waste of time for me to invest in a 4-year degree."

Francis's internship mentor, astronomer Patrick Morrissey, called that idea "ridiculous." He explained, "Francis is not hampered by his disability. It's not an impediment to the interactions that I have with him, or the work he is doing for me this summer."

"My cerebral palsy doesn't inhibit my thinking," said Francis, "but sometimes I've needed help to keep my confidence." He credits his mother for inspiring him to develop the determination to prove the counselor wrong: now a senior in computer science at Augsburg College, Francis is the only student with a disability in his class and has a 3.5 grade point average.

Maximizing Potential

When asked what advice they would give scientists who are mentoring or working with people with disabilities, the students participating in ACCESS and Entry Point revealed some common themes: focus on abilities, not limitations; treat everyone as an individual; be patient; establish open and honest lines of communication; be creative and use technology to your advantage.

Bruce Budde, whose internship this summer has allowed him to return to the first R&D technical position he has held since he was injured in the Air Force, explained why he feels comfortable working with his mentor and co-workers: "They're giving me opportunities to prove myself, but if I need something, they make sure I get it." Tim Hebert, who is deaf, e-mailed why he enjoys working with his mentor, Larry deQuay: "He not only tells me what to do on the job, but he also talks to me about careers, the workplace, and how co-workers best communicate for problem-solving and providing feedback."



Drawing out abilities. Randall Smith mentors Chris Mouser to take her from intern to colleague.

deQuay reports positively about working with Tim, the first student with a disability whom he has mentored. "I had to learn how to communicate with him, but things progressed pretty quickly. And a lot of things that I've wanted to get done and haven't been able to do are now getting done by Tim. He's probably by far the best intern I've ever had."

Christine Mouser, who has dyslexia and is majoring in mathematics at Saint Xavier University, summed up how Randall Smith, a physicist, has been successful in mentoring her: "He has encouraged me to advance my skills to another level and to learn a new computer language. He is there to redirect me if I have gone off on a tangent and to answer my questions. He has constructed a means by which I have been able to use my educational talents to the best of my abilities."

Smith, who began at NASA in another internship program, opted to be a mentor to return the favor and out of recognition that "mentoring is vitally important to learning how science is done." Still he admits he had some doubts, "My biggest fear was I'd get somebody that I had to constantly work with in order to do anything useful. Instead, Chris is quite independent, which is a great boon to me." On her first day, Smith asked her to write a complicated program. "I was pleasantly surprised," said Smith, when Chris turned in one 4 hours later that met his exact needs.

For more information about how to partner with Entry Point to provide internships to students with disabilities, or how to serve as a mentor for students with disabilities, or for applications for internships, contact Virginia Stern at vsstern@aaas.org or 202-326-6630.



Rahsaan Jackson

S. L. BYRAND

S. L. BYRAND

Solutions Against Human Rights Abuses

During apartheid, more than 70,000 black South Africans—adults and children—were detained without trial or charge. Many district surgeons who were responsible for their care failed to give appropriate medical attention to those who were tortured by the police. Perhaps the doctors supported apartheid policies, perhaps they were too afraid. Regardless, detainees suffered, some even died. Given these abuses, with a long list of others, many health care providers did not live up to their title; instead, they contributed to the gross human rights violations that for decades had devastating health consequences for black South Africans.

At recent hearings by South Africa's Truth and Reconciliation Commission (TRC), a delegation organized by the AAAS Science and Human Rights (S&HR) Program recommended that future abuses in the health sector could be prevented by incorporating education in health and human rights at all levels of training for health professionals. It also urged the creation of an independent human rights monitoring body with the power to investigate all allegations of human rights violations

within the health sector. Finally, the delegation recommended that the only solution to the past failure of self-regulation would be to restructure completely the Medical and Dental Council in South Africa.

The leader of the delegation, Bob Lawrence—a professor of health policy and associate dean for professional education at Johns Hopkins—described why it was important for AAAS to be involved. "The South Africans are attempting to combine amnesty with specific reforms and efforts at compensating the victims of apartheid as well as building new structures to guarantee that these abuses will not happen again." In addition to presenting its recommendations, AAAS offered an analysis of past violations and a summary of the Association's book *Apartheid Medicine*, which exposed the health professionals' involvement in human rights abuse.

The TRC, in the largest-ever undertaking to expose and compensate for human rights violations that took place during a former regime, invited AAAS to testify out of appreciation for *Apartheid Medicine* as well as for AAAS's ongoing collaboration with the TRC. For example, the S&HR Program has been assisting the TRC by teaching

social science quantitative research methods to TRC analysts and by helping them to develop an information management system to collect, manage, and analyze data from thousands of interviews with victims and applications for amnesty. Currently, the program staff is drafting a manual that describes how best to use the TRC database for statistical analysis and other research so as to compensate for past human rights violations and to prevent any more from happening.

Said Audrey Chapman, the director of the S&HR Program, "AAAS considers itself privileged to be able to contribute on several levels to the work of the TRC. Our input underscores how important the scientific methodologies are in understanding the patterns of human rights violations that took place in the health sector. We can contribute a way not only to understand the past, but to help create a new society that is based on a respect for human rights."

To assist the TRC further, the S&HR Program will fully elaborate its recommendations as well as pose others in a revised written report that it is currently preparing for the TRC for release in October. For more information, please contact 202-326-6600.

Cloning Takes Center Stage at AAAS

The inaugural public event at AAAS's new auditorium focused on one of the most visible and profound scientific advances in recent memory—the cloning of Dolly. The use of somatic cell nuclear transfer from an adult sheep to create a genetically identical clone has fascinated the world's public as well as scientists, not only because of cloning's potential to improve our understanding of basic reproductive processes and develop new treatments for infertility, but also because of its ethical, religious, and policy implications.

A forum sponsored by AAAS on 25 June convened Dr. Ian Wilmut, the Scottish scientist who led the team that cloned Dolly; Dr. Ezekiel Emanuel, a member of the National Bioethics Advisory Commission; and speakers from government, industry, foreign embassies, and academic and religious

institutions. They, with about 200 attendees, engaged in a lively dialogue that ranged from whether human cloning should be banned to what it would mean to be a clone.

A videotape set of the forum proceedings, containing four VHS tapes totaling nearly 7 hours of programming, is available for \$35, including shipping and handling; \$32 for AAAS members (provide membership number). Send checks payable to AAAS to Bob Bobala, Directorate for Science and Policy Programs, AAAS, 1200 New York Avenue, NW, Washington, DC 20005. DC residents add 5.75% sales tax; CA residents add appropriate sales tax; Canadian orders add 7% GST; airmail orders, add 25%. For inquiries, call 202-326-6733. AAAS would be pleased to consult with other organizations that may be planning similar events.

New Dues Rates Approved for 1998

The AAAS Board of Directors approved a dues increase for 1998. The Board authorizes increases to cover two kinds of expenses: unavoidable costs associated with running AAAS and publishing *Science*; and new expenses that add value to membership. Postage increases and developing new features for *Science Online* and other electronic products are examples of the kind of new expenses the Board anticipated in setting the 1998 dues rates. Overall, these increases are expected to provide AAAS with a 4% increase in total dues revenue for 1998.

The new rates are effective for terms beginning after 31 December 1997. As listed below, they do not include postage for international members, which is additional.

- Regular professional members: \$108
- Postdocs and K–12 teachers: \$85
- Emeritus members who receive *Science*: \$70
- Students: \$60
- Patrons: \$250
- Corporate: \$1000
- Spouses and supporting and emeritus members who do not receive *Science*: \$45
- Libraries and institutions: \$295

Full text *Science Online* will continue to be available to members receiving *Science* at \$12 in addition to dues. Special procedures are being developed to license online access to libraries and institutions based on IP address. Librarians should contact AAAS or their catalog agents for pricing.

All members whose membership expires during 1998 will be advised of the new dues rates on their renewal notices.

Member dues and voluntary contributions form the critical financial base for a wide range of AAAS activities. For more information, contact the AAAS Membership Office at 202-326-6417.