

Eve Barak

Early next spring, Eve Barak will retire as Program Director for Cellular Organization in the National Science Foundation's (NSF) Division of Molecular and Cellular Biosciences. Barak's retirement has left the cell biology community torn between grief and celebration. Their grief comes from the thought of losing a friendly face and an incisive intelligence at NSF, say Barak's many friends and colleagues including a large number of longtime ASCB members. The celebration is for what Eve Barak has accomplished in 21 years as the driving intelligence behind the NSF's cell biology program.

"Eve has really transformed the cell and molecular biology component of NSF by making it really forward looking," says ASCB member Mary Lee Ledbetter, who teaches at Holy Cross College in Worcester, MA. Ledbetter has known Barak since they were both graduate students at the Rockefeller University. "Eve sees new ideas early on and provides seed money to support them early on. She's often an advocate for risky science. But Eve knows how to take risks and her bets frequently pay off."

ASCB member Stephen Wolniak has known Barak as his funding program officer and as her colleague at NSF where Wolniak served for a year as a "rotator" scientist. Wolniak is at the University of Maryland, College Park. "What Eve's done for the past 20 some years has been largely unheralded," says Wolniak. "The vast majority of people in cell biology don't realize that NSF has a program. The reality is that there are a sizeable number of us who do look to NSF because they fund a different kind of science than NIH. Eve has been totally dedicated to making cell biology a strong and viable program at NSF."

Long Shots and Big Impacts

Ann Erickson of the University of North Carolina, Chapel Hill, is another ASCB member who feels that Barak's impact on cell biology deserves wider notice. "Eve has always been interested in the long shot for the long impact. That's where the judgment of a program

officer comes in. Eve has always been out to make a difference."

The difference stems in part from Barak's personality but also from the unique nature of the NSF, at least according to Eve Barak who, for the record, has been an ASCB member since 1980. Program officers at NSF have different powers than those scientists working in analogous posts at the National Institutes of Health (NIH), she explains. The institutions are so different. As Barak puts it, "NIH is a mission agency. Their business is the science of health. We are the NSF, an independent agency of the federal government. Our mission is the health of science in this country."

Beyond their vast disparities in budget size, the NSF does not use the NIH "study section" method. Instead the NSF program officer selects "mail reviewers" for each proposal, much the way journal editors select reviewers for manuscripts, and also recruits and chairs a proposal "review panel" whose opinions are only advisory. It falls to the NSF program officer to draw up a slate for the division director's final approval.

Beyond the Laboratory Walls

At NSF, it's also the program officer's job to look for transformative research and "broader impact." Wolniak explains, "A big part of Eve's job at NSF is to have impact. Eve gets that impact by looking at risky projects that would never stand at an NIH study section." Barak taught him how to look beyond the immediate experiment for its broader impacts, Wolniak recalls. "How does this project stretch beyond the walls of your laboratory? How does it work toward the training of students or toward outreach? How does it work toward getting you involved in things where your science is having an impact beyond your lab?"

"It's not an easy job," says Brian Storrie, a longtime friend and ASCB member now at the University of Arkansas for Medical Sciences in Little Rock. "There are pressures from the profession and from NSF. The amount of money is very limited. Yet Eve has done it with

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integrity. In the end, NSF cell biology is not about grantsmanship but about the science.”

As an NSF program officer, Barak says she is always mindful that a grant seeker might confuse a suggestion from her as an order from “Dr. Barak, Federal Agent.” A federal science administrator was certainly not the career Barak had in mind while she was growing up. Born in New York City, the only child of Jewish refugees, Barak recalls reading through the *Funk & Wagnall's Encyclopedia* that her parents brought home from the supermarket, one volume at a time. Barak is a product of New York City public schools, culminating at Hunter College High School (back when it was all-girls) where she had “excellent” science teaching. “When I learned about cells in high school, they just sang to me.”

White Gloves and Party Manners

In 1965, Barak went off to Brown University, or rather she went to Pembroke, which was still the women's affiliate.

“There were still ‘posture pictures’ and ‘socials’ where you had to wear a hat and gloves,” Barak recalls with a shudder. “That was my first year at college and it all changed after my first year.” Barak describes herself at Brown as shy. Her scientific mentors, Peter Stewart and his wife Babette, had to drag her up after a lecture to meet the celebrated Rockefeller researcher James Hirsch. “Peter took one arm and Babette took my other one,” says Barak. Stewart also steered her to the Rockefeller for graduate school.

She finished her Ph.D. at the Rockefeller University in 1974, working on cell wall growth in *Diplococcus pneumoniae* with Alexander Tomasz. Technically, the Tomasz lab was focused on microbiology but Barak imbibed the fundamentals of the new cellular and molecular revolution sweeping through the Rockefeller. “The Rockefeller had no departments and no graduate program as such. You didn't get a Ph.D. in anything. The idea was they were going to train their students to think and do research. And after that you were on your own.” [The Rockefeller University still has no departments and still grants only “a doctoral degree from the Rockefeller University.”]

Except Barak was not alone when she left the Rockefeller. She had a new husband who'd taken a postdoc at Washington University in St.

Louis. Barak followed along to the lab of Stuart Kornfeld, a physician and biochemist whose work on oligosaccharide structures and lectin-resistant cells would help open the modern study of glycobiology. Barak remembers her years in the Kornfeld lab as the happiest of her bench life.

Good News Not Good Sign

Then she followed her husband's career again, this time to the University of Alabama, Birmingham. “It was a great place for him but there wasn't terribly much for me,” is how Barak puts it. “[Since] I was a woman and a New Yorker ... the culture gap was huge. Then my marriage dissolved. I took that as an opportunity to go elsewhere.” Elsewhere was Houston and the University of Texas System M.D. Anderson Cancer Center. It was not a good match, Barak remembers. She didn't realize how bad it was until 1983 when she received wonderful news from NIH that her RO1 grant had been fully funded. Instead of

elation, the news left her flat.

She began to consider what else she could do with her life, including becoming a rabbi. The Reform Jewish seminary in Los Angeles was accepting female candidates. Barak flew out to Los Angeles to talk with Laura Geller, one of the first women to be ordained as a rabbi in the United States. They chatted easily in Rabbi Geller's garden. Suddenly, Geller said to her, “You know, you talk like a scientist.” Barak was startled. Then she realized that the rabbi was right. She would have to find other ways of being a scientist.

The search led to Washington, DC, and, in 1986, to the NSF. It turned out to be exactly the right place for Barak, although at first she had trouble explaining her job to her mother. “Finally I told her, ‘Mommy, it's like being a scientific rabbi.’ And my mother understood perfectly,” Barak recalls with a laugh.

The NSF chapter of her life is now ending, says Barak. She is retiring at 60 because the love of her life and her husband for the past 20 years, Eugene Davidson, is 77. He is more than ready to retire from the Biochemistry Department at Georgetown University. They have sold their home in DC and their sailboat, moving everything else, including Davidson's extensive wine collection, to their brand new house in

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Boynton Beach, FL, near Palm Beach. "At the moment, though," Barak confesses, "the only thing in the living room is the patio furniture which we can't put out because it's hurricane season. That and a lot of boxes."

Ledbetter figures her old friend will have little trouble unpacking her life in new surroundings. "Eve has always had very broad interests," says Ledbetter. "She's a published poet and a musician. There are lots of things in her life that interested her more than simply doing bench work or even science." Ledbetter recalls being in San Francisco at an ASCB meeting years ago with Barak and her husband. They kept talking about an "obscure" little restaurant in Berkeley. "I'd never heard of it," Ledbetter recalls. "It was called Chez Panisse but Eve and Gene were really, really eager to have a meal there. So we all went to Chez Panisse and I must say that it was memorable. That kind of eclectic appreciation of life—that's what I like most about Eve." ■

—John Fleischman

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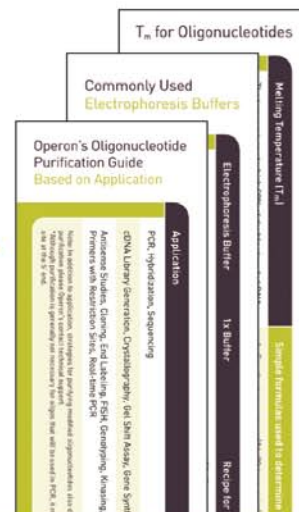
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