

PublisherInfo		
PublisherName	:	BioMed Central
PublisherLocation	:	London
PublisherImprintName	:	BioMed Central

Ira Herskowitz dies

ArticleInfo		
ArticleID	:	4766
ArticleDOI	:	10.1186/gb-spotlight-20030506-01
ArticleCitationID	:	spotlight-20030506-01
ArticleSequenceNumber	:	118
ArticleCategory	:	Research news
ArticleFirstPage	:	1
ArticleLastPage	:	4
ArticleHistory	:	RegistrationDate : 2003-5-6 OnlineDate : 2003-5-6
ArticleCopyright	:	BioMed Central Ltd2003
ArticleGrants	:	
ArticleContext	:	130594411

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Ira Herskowitz, professor of genetics at the University of California, San Francisco (UCSF), died at home on April 28 of pancreatic cancer. He was 56.

Remembered for clarity of mind, exceptional science, enthusiastic teaching, and a love of music, his death sent a shock throughout the yeast community this week, where Herskowitz made many great contributions and friends.

"It's a great loss to us all," said [Paul Nurse](#), Nobel Laureate and new president of The Rockefeller University. "Ira Herskowitz had a huge influence on the yeast field and on me personally." Laureate Leland Hartwell, president of Fred Hutchinson Cancer Research Center told us in an e-mail, "I'll bet there are few scientists in genetics, molecular and cell biology who were not personally affected by him."

Born in Brooklyn, NY, Herskowitz moved with his family about the country as father Irwin, a *Drosophilageneticist*, took various academic positions. Herskowitz received a bachelor's degree in science from the California Institute of Technology in 1967 and a PhD in microbiology from the Massachusetts Institute of Technology (MIT) in 1971. After a short postdoctoral stint there, he assumed an assistant professor position at the University of Oregon. Moving in 1982 to UCSF, he immediately revamped the genetics program there, chaired the department of biochemistry and biophysics from 1990 to 1995, and co-directed the program in human genetics from 1997.

Among his fundamental discoveries is the gene conversion pathway by which *Saccharomyces cerevisiae*, the budding yeast, reorganizes its genes to [switch mating types](#). Herskowitz simply and elegantly elucidated *S. cerevisiae*'s complex genetic regulation. "The mating-type switching work was one of the great advances in understanding regulatory systems in eukaryotes. It really is a big deal," said David Botstein who was on Herskowitz's thesis committee at MIT.

Together, Botstein and Herskowitz switched fields from phage genetics to yeast after taking the [yeast course](#) at Cold Spring Harbor Laboratory. "We're very close in age, and he actually was the first postdoc to work in my lab, although it was not at all clear who learned more from whom," Botstein said.

Nurse, a postdoc at the time, first met Herskowitz after the latter opened his lab at the University of Oregon in 1972. "He had such a clear head and such a brilliant way of thinking about these sorts of problems that it was really a revelation for me, in those formative years."

Alexander Johnson, one of Herskowitz's first postdocs when both arrived at [UCSF](#) in 1982, said, "He had that rare ability to see into the heart of a complex scientific problem, to reduce it to simple ideas, and to come up with the decisive experiment - often one that had eluded the field."

Beyond scientific prowess, Herskowitz was praised for his mentoring and teaching abilities, which were manifest at an early age. "When he was a teenager, he was tutoring a friend in math and this friend's mother said that it was just remarkable listening to him teach," recalled Herskowitz's mother, Reida.

He was "very unusual in his ability to communicate science at any level. He spent a lot of time with his trainees - postdoctoral fellows and students - teaching us how to present things," said former postdoc Brenda Andrews.

He's also been called the master of the chalk talk, resisting for many years the lure of PowerPoint. "Ron Davis once said to me, 'If you want the perfect example of how to give a talk, watch Ira speak.' No glitzy slides or anything like that, he'd stand up there with transparencies," said Mike Snyder of Princeton University.

Herskowitz also captivated audiences with music. A self-taught guitarist, he had a well known repertoire of songs he'd performed at meetings all over the world, including, "I've been Working on the Genome," "Nights in the Cold Room," and "Double Talking Helix Blues" - the last [written](#) by his identical twin brother, Joel, a neurologist from Boston.

Andrews, now chair of medical genetics and microbiology at the University of Toronto said, "Music was a recurring theme. Whenever the lab gathered, the guitar would come out, and we would all sing whether we wanted to or not."

In the late 1980s, Herskowitz inspired and entertained in an invited talk at McGill University. Charlie Boone of University of Toronto, then a graduate student, reminisced about an impromptu hockey match afterward. Herskowitz hugged the boards throughout much of the game until finally taking center ice. "Someone hit him with a pass and he scored," said Boone. In lieu of an honorarium that year, Herskowitz requested a Montreal Canadiens hockey sweater.

Though friends agree Herskowitz's greatest talents were not displayed in the hockey rink - ping-pong was more his game - his mentoring, his scientific brilliance, and his music leave an indelible mark on science. "Because of his clarity and because of the very fundamental nature of his contributions, yeast genetics as we understand it, reflects his thinking very clearly and very strongly," said Botstein. "That is something that will never go away. As long as people do this kind of stuff, that vision will be there."

Herskowitz was elected to the Institute of Medicine in 2002, the National Academy of Sciences in 1986, and is a former MacArthur Foundation Fellow (1987-1992). Most recently, Herskowitz was awarded the 2003 Lewis S. Rosentiel Award for Distinguished Work in Basic Medical Research. Herskowitz was UCSF's Herzstein professor of genetics in the department of biochemistry and biophysics and co-director of the UCSF program in human genetics.

In addition to his mother Reida and his brother Joel, Ira Herskowitz is survived by his father, Irwin, professor emeritus of biology at Hunter College; sister Mara Herskowitz, a psychiatric nurse in New York; and youngest brother Alan of Palenville, NY.

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