

OBITUARY



David R. Cox 1946–2013

Gregory S Barsh & Richard M Myers

David R. Cox, a leader and advocate for genetics and genetic medicine, died unexpectedly from heart disease on January 21, 2013, at the age of 66. David (Dave) Cox is widely known for his seminal contributions to genome mapping and variation. For the many fortunate enough to know Dave as a teacher, mentor, colleague or friend, he is also known for his charismatic and visionary approach to all areas of biology.

Born in Alliance, Ohio, and raised in Ohio and Portland, Oregon, Dave graduated from Brown University, received MD and PhD degrees from the University of Washington, completed a pediatric residency at Yale–New Haven Hospital and subspecialty trained in medical genetics at the University of California, San Francisco (UCSF).

From 1980–1993, Dave was a faculty member in the Departments of Pediatrics, Biochemistry and Psychiatry at UCSF and, from 1993–2003, in the Departments of Genetics and Pediatrics at Stanford University. He codirected (together with Richard Myers) the UCSF and Stanford Human Genome Centers, making major contributions to the large-scale mapping and sequencing efforts of the Human Genome Project. Dave served on the National Bioethics Advisory Commission, the Health Sciences Policy Board of the Institute of Medicine of the National Academy of Sciences, the Board of the American Society for Human Genetics and the Council of the Human Genome Organization. In 2001, he helped to found Perlegen Sciences and led some of the first successful efforts to develop and apply genome-wide association mapping to the understanding of disease and differential patient responses to treatment. More recently, in 2008, Dave joined Pfizer to shepherd development of their efforts in genomic medicine.

Dave's colleagues and trainees remember him as a master of communication, identifying and explaining important aspects of genetics in ways that were clear and persuasive. This quality served him well, whether speaking to students, patients, potential investors or, as he often did, the general public. During an interview at Cold Spring Harbor to commemorate the sequencing of the human genome in 2003, Dave said, “when I was in the process of finishing medical school... I realized very shortly

that you don't have to understand everything,” that “knowing the DNA, which is fundamental to biology, and knowing what the end results are, we don't actually have to understand how things work in the middle to be able to impact people's lives.”

A near-evangelical belief in the awesome power of genetics is what motivated Dave to develop and apply a method called radiation hybrid mapping, which provided a critical stepping stone to integrate physical and genetic measures of the human genome and which has also gone on to be applied productively to dozens of organisms in addition to humans. That same evangelism was behind efforts at Perlegen, which produced one of the first large-scale haplotype maps, paving the way for the thousands of genome-wide association studies that would follow.

Dave's friends and family remember him as passionate, caring and charmingly obsessive. Whether it was jazz, malt whiskey, good food or college basketball, Dave brought the same focus, rigor and attention to detail that characterized his approach to science. Dave's friends and family also remember his love for all kinds of data—cosegregation in somatic cell hybrids, allele frequencies in population surveys, sports statistics or calories expended during a personal pursuit of fitness—it mattered only that the data were accurate and had been analyzed correctly (which he often did himself). Dave's family was one of the most important parts of his life. He was a devoted father and husband, enormously proud of his family, Vicki, Ian, Sarah and Jacob, through whom his optimism, enthusiasm, candor and warmth live on.

Beyond his many accomplishments and honors, Dave integrated his passion for science with a deep concern for people affected by genetic disease, particularly children, encouraging and advising disease advocacy groups in orchestrating their research programs. One of the efforts about which he cared most was the Ataxia-Telangiectasia Children's Project (ATCP), in part, because of a personal connection—a founder of ATCP, Brad Margus, was also a founder of Perlegen Biosciences.

In a Perspective that accompanied the landmark genomic mapping paper from Perlegen Biosciences in 2001, Pui-Yan Kwok wrote, “[this work has] shown us that when one sets out to achieve the almost impossible and does something about it, we are one step closer to realizing the dream.” Dave brought us one step closer and will be deeply missed as a physician, scientist and a fiercely loyal, always supportive friend. ■

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