Jonathan Carl Vogel, MD (1954–2010)

Jon Vogel died on 30 October 2010 after battling renal cell carcinoma for less than a year. He was a senior investigator in the Dermatology Branch of the Center for Cancer Research, National Cancer Institute (NCI), National Institutes of Health (NIH), and an active member of the investigative dermatology and cutaneous biology communities. Jon is fondly remembered by his family, colleagues, and friends, who miss him a great deal.

Jon was an active, adventurous child, a very good student, and an athlete. His passion was baseball, and he was both a skilled player and an avid fan (go, Cardinals!). Jon’s eyes were opened, and his life changed significantly, by his undergraduate experience at the University of Illinois at Urbana–Champaign, where he became interested in laboratory research. He was elected to Phi Beta Kappa, authored a thesis entitled “Molecular Characterization of the Polymerization of Rana catesbeiana Hemoglobin,” and graduated with an honors degree in biochemistry with departmental distinction.

Continuing his research career, Jon began his clinical training at Rush Medical College in Chicago, making his initial contribution to the biomedical literature in the form of a first-author publication in the New England Journal of Medicine. After election to Alpha Omega Alpha, the medical school equivalent of Phi Beta Kappa, and graduation from Rush, Jon moved to Saint Louis to continue his training in internal medicine at Washington University/Barnes Hospital. At Barnes, he distinguished himself as a highly competent, compassionate physician. Like many under the tutelage of then Chairman of Medicine David Kipnis, Jon undertook a research fellowship at the NIH following residency training. Rather than engage in subspecialty training, he chose to work in a basic science laboratory, where he was mentored by two prominent scientists, Gilbert Jay and George Khoury. They utilized the then novel approach of expressing transgenes in mice to study regulation of gene expression and the effects of putative viral oncogenes in vivo. Jon was successful in the laboratory and lucky outside the laboratory. During his fellowship, Jon met Betsy Falloon, a wonderful woman who became his soulmate, his wife, and the mother of their three lovely children (Nora, Hannah, and Max).

After his NIH fellowship, Jon joined the Laboratory of Virology at the American Red Cross Holland Laboratories in suburban Washington, DC, where he established an independent, RO1-funded research program. Although several of the transgenic mice that Jon generated early in his career had skin phenotypes, his relationship to investigative dermatology and cutaneous biology became more formal only when he began to collaborate with Stephen Katz, then Chief of the NCI’s Dermatology Branch. With Jon’s help, Steve and Alexander Enk quantified small amounts of cytokine messenger RNAs that were produced in inflamed mouse skin, providing important insights into the roles of Langerhans cells and keratinocytes in the initiation of contact hypersensitivity via production of inflammatory mediators. This productive interaction led to Jon’s recruitment to the branch as a tenure-track investigator in 1992.
Although Jon was the only nondermatologist member of the Dermatology Branch senior staff, there was never any question as to whether he was an integral member or an equal partner. Indeed, Jon became a cornerstone of the branch. He appreciated the special environment that the NIH intramural program and the Dermatology Branch provides, and he took seriously the challenge that intramural scientists engage in investigations that have impact and that effectively leverage the intramural program's unique resources. Over the course of Jon's 18-year career as an independent investigator at the NCI, his major focus migrated from studies of transgenic mice to skin gene therapy to isolation and characterization of normal keratinocyte stem cells and, ultimately, to studies of tumor-initiating cells (so-called “cancer stem cells”). This journey reflected Jon's willingness and ability to undertake new lines of investigation, emphasizing in vivo approaches, in an effort to make important discoveries of direct relevance to patients.

Jon and his fellows were productive at the NIH, and he successfully competed for tenure in 1999. In Jon's bibliography, the quality and significance of his laboratory's contributions stand out more than their sheer number. He was quite willing to spend several years “building a better mousetrap” or working in a new area if that meant an important question could be definitively addressed. Thus, Uli Hengge and Jon first demonstrated that “naked DNA” was sufficient to achieve gene expression in mouse, pig, and human skin; Jon and Jeff Hildesheim studied POU transcription factors and keratinocyte differentiation; Jon and Patty Walker studied DNA-based immunomodulators in leishmaniasis; Jon and Wolfgang Pfutzner designed a strategy that allowed long-term selection of genetically modified pig keratinocytes in vivo; Jon and Christy Tock characterized effects of solar radiation on the transcriptome of healthy human skin; Jon and Manabu Ohyama isolated and characterized stem cell–enriched populations from the human follicular bulge; Jon and Atsushi Terunuma isolated and characterized human keratinocyte stem cells using novel proteomic approaches and culture methods; Jon and Jean-Phillipe Therrien attenuated hypertension in mice using grafted gene-modified human keratinocytes; and Jon and Girish Patel began the process of isolating and characterizing tumor-initiating cells from primary cutaneous human squamous cell carcinomas after establishing an engraftment model. At the time of his death, Jon and Xin Xin Quan were continuing to study squamous cell carcinoma, and studies of tumor-initiating cells in prostate cancer and kidney cancer were also ongoing (with Renuka Pudi Limgala and Alok Mishra, respectively). Over the course of his career, Jon's research efforts were ably supported by two talented technicians, Ruth Ann Foster and Carole Yee, and Atsushi Terunuma was very much his partner in the laboratory over the past decade.

Jon was an excellent collaborator as well as a creative independent scientist. He was highly regarded by colleagues because of his expertise, and he was approachable, inquisitive, and generous with reagents, methodologies, and ideas. Jon's gift of gab and delight in intense conversations facilitated these interactions. Because of his forthrightness and integrity, he was able to have close personal and professional relationships even with competitors.

Those of us who worked closely with Jon recognize that, in addition to being an excellent scientist and physician, he had many other important qualities. Born and raised in Illinois and the son of a successful grain merchant, in many ways Jon was a typical American Midwesterner. He was accomplished but modest, quietly confident, and inconspicuously generous—and he was a man of faith who did not advertise it. Jon was openly passionate about his family, and he achieved an enviable balance between his personal and professional lives. Despite long hours at work, it was not unusual for him to reveal on Monday morning the long list of family-related activities he had enjoyed over the weekend. Jon's reward for making his family his top priority was a strong marriage and a wonderful relationship with each of his children.

Many of us are fortunate to work and become friends with a number of talented, interesting individuals over the course of our professional careers. If we are really lucky, we develop close personal relationships with a few like Jon Vogel. It was my privilege to know him.

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