

I N M E M O R I A M

Leonard A. Herzenberg, Ph.D., AAI '68

1931 – 2013

*Longtime AAI member Len Herzenberg, a prominent immunologist and past recipient of the AAI Lifetime Achievement Award, died on October 27 at the age of 81 after suffering a stroke in early October. His work, including the pioneering of flow cytometry and development of the first FACS cell sorters and related technology, revolutionized the field. Dr. Herzenberg served on multiple AAI committees and on the editorial board of *The Journal of Immunology*. AAI extends condolences to his wife and fellow immunologist, Leonore Herzenberg, Ph.D. (AAI '74), their family, and many colleagues and friends.*



During the 50 years that Len led the laboratory, he trained nearly 100 postdoctoral fellows and graduate students, a great many of whom have gone on to become world-renowned scientists in their own right. Over the years, Len was recognized with numerous prestigious awards: he was a member of the National Academy of Sciences, and was awarded the Novartis Immunology prize in 2004, and the Kyoto prize in 2006.

Notably, Len's contributions were not limited to science. He and Lee were always very active politically and socially -- working

to overcome the backwards attitudes underlying McCarthyism, eugenics, nuclear proliferation, and later, the early stigmas and misinformation surrounding the early HIV epidemic. Len felt that scientists have a responsibility to bring their knowledge to the public forum to try to rectify misinformation and misguided politics.

The following tribute was authored by past Herzenberg trainee Mario Roederer, Ph.D., and appears with his kind permission.

Len Herzenberg passed away peacefully on October 27 at Stanford Hospital after a brief illness; he was 81. Lee Herzenberg, his wife of 60 years and life-long partner in science, was at his side.

We have lost a great scientist and innovator, a wonderful mentor, colleague, and friend.

Len was perhaps best known for bringing flow cytometry to the field of immunobiology. He was among the first to recognize the power of single cell analysis and how it could revolutionize our understanding of the immune system. In the late 1960s he put together a team at Stanford University to build the first fluorescence-based cytometers, using electrostatic charging of drops to sort individual cells. It is remarkable that almost 45 years later, the fundamental technology still has not changed, and has become a workhorse in nearly every immunology laboratory.

Len's laboratory was also responsible for bringing hybridoma technology to the US, from his sabbatical in Cesar Milstein's laboratory. At the time, Len uniquely recognized the incredible potential it had for transforming clinical and basic research and therapeutics; he urged early commercialization and distribution of useful hybridomas. His laboratory isolated many of the first monoclonal antibodies against human and mouse leukocytes, paving the way for decades of research. The laboratory made key contributions to defining MHC, the functions and differentiation of B cell and T cell subsets, and the genetics of mouse immunology.

Earlier this year, I had the privilege to interview Len and Lee for a special series in *Annual Reviews of Physiology (ARP)*. They discussed many of these sociopolitical issues, and how that influenced their research. Both the video (about an hour long) and the text are available online; I recommend watching the video to listen to Len and Lee's remarkable stories in their own words. Links are listed below.

I hope everyone takes a moment, when next viewing a FACS plot, running a sample, or analyzing sorted cells, to think about the many contributions that Len made to the field, and the enormous impact he has had. As one of his postdoctoral trainees, I am grateful for his mentoring and strive to emulate his commitment to science in my own laboratory.

Mario Roederer, Ph.D., Senior Investigator, ImmunoTechnology Section, Vaccine Research Center, NIAID, NIH

To view the ARP Video cited above, visit www.annualreviews.org/doi/story/10.1146/multimedia.2013.08.15.195.

To view a transcript of the ARP interview text, visit www.annualreviews.org/doi/abs/10.1146/annurev-physiol-021113-170355.

A Stanford University retrospective on the life and career of Len Herzenberg is available at www.med.stanford.edu/ism/2013/october/obit-herzenberg.html.