IN MEMORIAM

Harrison Latta
Professor, Department of Surgery, Emeritus
UC Los Angeles
1918-2007

Harrison Latta passed away on December 29 2007. A pioneering figure in the field of electron microscopy, Dr. Latta's discovery in 1949 of the glass knife is marked as a major breakthrough in the development of tissue section electron microscopy. This imaginative, low tech innovation made possible the preparation of thin tissue sections suitable for electron microscopic examination, a task that until then had been prohibitively difficult and not accessible to most laboratories. The use of glass knives spread rapidly and was ultimately used worldwide. It can safely be said that most of the classic work in electron microscopy, which provides the morphologic bases of our current understanding of cells and tissues, to a great extent was made possible by Dr. Latta's invention.

How Dr. Latta came about the idea to use the glass knife is described in a charming paper he penned nearly 40 years after the initial discovery. Once again, what Louis Pasteur said many years ago, "Chance favors only a prepared mind," is borne out. Dr. Latta recounts his interest in Japanese swords during his boyhood in Honolulu and their need for both sharpness and flexibility; and how the repeated hammering and reshaping creates "a 30,000 layer microcrystalline sandwich made of two phases of metal." Dr Latta relates how - during his postdoctoral fellowship at the Massachusetts Institute of Technology (MIT) - he was confronted with the challenge of preparing tissues sections for electron microscopy with the available sharpened steel knives. It was then that he envisioned that a molecularly homogenous solid, such as glass, could be fractured to produce a cutting edge with an acute angle that could cut the ultrathin sections suitable for electron microscopic examination. His first glass knives were fragments of broken milk bottles. After convincing himself that he had found the answer to the problem of producing thin sections, he and Francis Hartmann devised a method of producing glass knives by breaking strips of glass. They published their invention in 1950.

Born in Los Angeles, Dr. Latta received his undergraduate degree from UCLA in chemistry and his medical degree from the Johns Hopkins School of Medicine, where he also served his internship and residency in pathology. After spending two compulsory military years at the Armed Forces Institute of Pathology in Bethesda, Maryland, Dr. Latta served as a research fellow at the Boston Children's Hospital. In 1949, he joined the Department of Biology at MIT for two years as a research associate headed by the legendary F.O. Schmitt - a cradle for the nascent field of electron microscopy. It counted among its research fellows H. Fernandez- Moran, A. Hodges, F. Sjostrand, and many others who would later play a major role in building the field of electron microscopy.

Dr. Latta was an emeritus professor of pathology at the David Geffen School of Medicine at UCLA when he passed away. He began his academic career at the Case Western Reserve in Cleveland, and joined the UCLA School of Medicine as an associate professor of pathology in 1954. Dr. Latta's field of research was renal ultrastructure, most importantly, the characterization of the mesangial cell. This cell has been shown to be a major player in renal glomerular disease, such as Lupus and IgA nephropathy. While the mesangial cell's existence was denied by early electron microscopists, the work of Dr. Latta and associates established its presence as an integral and essential component of the renal glomerulus. In collaboration with his associates,

Dr. Latta also did early work mainly on the utrastructure of the kidney, especially to characterize the morphology of the juxtaglomerular apparatus, the renal medulla, and the glomerular capillary wall.

Dr. Latta was a generous, kind and unassuming man as well as a great and unselfish mentor for many future electron microcopists, such as Sergio Bencosme, Arvid Maunsbach, Luciano Barajas, Lydia Osvaldo,Thomas Stanley and William Johnston; as well as the countless young pathologists who studied the art of autopsy under his tutelage. Dr. Latta was a highly valued teacher and served in key positions within the developing young Department of Pathology at UCLA School of Medicine.

Harrison Latta is survived by Lya Cordova Latta, his wife of 22 years, five children, and grandchildren.

Jonathan Braun
Richard A. Gatti
Luciano Barajas