

[<< back](#) **1997****Harold Lane**

Hank Lane is not your typical ASCB member. Lane has devoted his life to the field of biotechnology, but he sidestepped basic lab research and found his place in industry. He has worked for some of the top equipment firms that supply products to universities and industry in the field of cell biology. He has recently helped found a new company, NaviCyte, Inc., which provides equipment to pharmaceutical companies, for experimentation with new drugs. Lane is not only an individual member of ASCB, but at his urging both his former employer, Corning Costar Corporation, and NaviCyte are corporate members of the Society. Lane recalls that his first direct exposure to science was as a teenage volunteer in the New England Medical Center in Boston. His father, who was in the hotel management business, had always harbored an interest in science and encouraged Hank to pursue the field. During high school at the Cambridge School in Weston, Massachusetts, Hank's chemistry teacher, Neal Wimmer, further stimulated Lane's interest and curiosity in the sciences. While attending college at Boston University (BU) in the mid-1960s, Lane received his draft notice, but was given a medical deferment due to a chronic eye disorder. While at BU majoring in the biological sciences, he served as a teaching assistant in the laboratory of Lynn Margulis. "Teaching those lab courses really jump-started my interest in developing products and techniques to make lab work easier and more productive," Lane remembers. After graduating from BU in 1969, Lane began his first full-time job at the Tufts-New England Medical Center working in the same clinical laboratories where he worked as a volunteer during high school and part time as a laboratory technician during college. His boss, William J. Hendry, Jr., who was the director of the clinical pathology lab, became Lane's scientific mentor. Lane credits Hendry with the encouragement and guidance that really focused him on the life sciences, particularly cell biology. "Professor Hendry," who later established the medical technology program at Northeastern University in Boston, "was an excellent teacher and is the one who transferred to me the excitement in studying about cells and their many facets," Lane recalls.

Despite never having returned for graduate training, Lane has continued his education throughout his career by taking seminars and courses at various places including Johns Hopkins, MIT and the American Management Association. Lane has also written articles for both technical and trade publications on such topics as cell culture systems for drug studies and permeable supports systems for cell culture.

Following the period at Tufts-New England Medical Center, Lane went to work for Damon Corporation in Needham, Massachusetts, in his first position in a private biotechnology firm. There he participated in the development of clinical autoanalysis instrumentation, laboratory methods for disease diagnosis, and clinical biochemistry applications. Lane says "my background work in the hospital helped me a great deal in the development of tools for the clinical setting." Lane worked for Damon for about two years and then moved to the large manufacturer, Millipore Corporation, based in Bedford, Massachusetts. There he started as an entry level scientist working in the Advanced Projects Laboratory of Millipore's Sr. Vice President, James L. Dwyer, on a variety of products designed for the clinical laboratory. "Jim Dwyer was an outstanding scientist and leader for our lab. He displayed an uncanny ability to identify and define product opportunities and transmitted to everyone in his lab the excitement of developing products that were truly useful and that actually led to better science being done in the labs that used them," Lane says. Lane spent the next 15 years at Millipore in many capacities, from developing electrophoresis products and applications in research and development management to manager for Market Development where he was responsible for identifying and analyzing new product proposals.

"Millipore was my life, I worked every weekend and never took a holiday or vacation, I couldn't wait to get to work in the morning," Lane says. Part of the attraction to his work was the way the company allowed workers to stay with a product from the development stage all the way through to the market introduction and selling stages. "If you developed a product you would then take it to the customer and ask them how the product is working." When customers told Lane that a product needed to be modified he would make the change and bring it back personally to ensure its usefulness. "In those days Millipore was small and flexible enough to be able to let us do that." Lane notes, with some regret, that that kind of personal involvement in a product from beginning to end is a rarity today when many large companies have well defined and rather narrow roles for participants in the product development process.

In 1986 Lane left Millipore for Costar Corporation (later Corning Costar Corporation) in Cambridge, Massachusetts. In the ten years he worked for Corning Costar, it flourished to become a leading manufacturer and supplier of laboratory products for life science research in academia and industry. He held three positions at Corning Costar: Technical Marketing Manager, Director of Technical Services and Scientific Affairs, and finally Director of Scientific Affairs. His primary focus was on products with an emphasis in cell biology and tissue culture. He worked in market development of analytical cell culture devices and methodologies utilizing permeable support structures. Though he enjoyed his work at Corning Costar, Lane gradually came to miss the gratification of hands-on involvement as he watched the company grow. So, in 1996 he took the plunge, left Corning Costar, and with a small group of others, helped to create his own small company.

NaviCyte, Inc. has just seven employees. While they are confident that the company will grow with time, Lane and George Grass, the company's CEO, see their current size as an opportunity to leverage an entrepreneurial spirit. Grass notes Lane's amiability and explains that personal relationships are a top priority for Lane: "in the six or seven years that I worked with Hank, I have been to a lot of trade shows and seminars with him. Everywhere we go he knows the leaders in the field. People walk up to Hank and they know him and he knows them. These scientists aren't just a customer base to Hank. He knows them as colleagues." Part of the reason that Grass went into business with Lane was because of the vast number of contacts he has in the field of cell biology.

Lane believes that those who manufacture products "should not be stuck back in a lab or workshop somewhere. You need direct contact with the end user. If a product isn't working, you fix it and bring it back to the customer so that you can be sure that your product is helping them do their work in the best way possible." NaviCyte will focus on products used by pharmaceutical companies such as diffusion chamber systems that aid firms in testing their new therapeutic compounds. These devices ensure that the drugs are transported and adequately absorbed in the small intestine. Grass explains, "we formed this company because pharmaceutical companies are developing millions of compounds which they screen for activity, but they do not go beyond that. We believe there will be a bottle neck following this process where the companies will need to know not just whether the compound is active, but if it will be absorbed. Up until now companies have been using animal studies to test for absorption. Using animals for this test is time consuming and expensive." NaviCyte hopes to provide companies with kits to perform this test on their drugs, which will help them determine if it is viable for further development. According to Lane, "these devices are used in the early stages of drug development. If the drug is poorly absorbed or not absorbed at all it's of no use" and therefore crucial information in the earliest stages of drug development.

NaviCyte is currently a "virtual" company. The company headquarters, when they physically exist, will be in Reno, Nevada, which they chose because the area has inexpensive commercial real estate, a favorable business tax climate, and is close to Grass' home in Tahoe. "We have people in Reno, California, New Jersey, Montana, and Boston and we stay in touch via email on the Internet, dedicated fax lines, and the telephone," Lane explains.

Lane says that he became involved with the ASCB because he has long felt that cell biology is the most exciting area of scientific study. His interest in the ASCB has also been bolstered by the strong support he received from ASCB members over the years with products he has developed. While at Millipore, he helped develop the 'Millicell', a porous filter substrate that is used as an attachment surface for growing epithelial or other polarized cells. "Re-searchers discovered that cell attachment and differentiation worked better on a porous surface than on a non-porous plastic petri dish. A porous surface is more applicable to the body and allows cells to function more as they would in the body." At Corning Costar, Lane was instrumental in introducing the 'Transwell' permeable support product line to the cell biology arena. Transwell became successor to the Millicell and, in 1992, Lane co-edited, with Rod Steele, a special issue of the Journal of Tissue Culture Methods describing the varied uses for porous-bottomed culture dishes. The MilliCell was first introduced commercially at the ASCB meeting in Atlanta in 1985. Lane spearheaded the effort to develop the product and worked with ASCB members who were key researchers in the field to test it before it came to market. Kai Simons of the European Molecular Biology Laboratory in Heidelberg, and now an ASCB Councilor explains, "we had to make our own filters before Hank came into the picture. The Transwell device that he created and commercialized probably more than doubled the pace of our work." ASCB member Keith Mostov of UCSF was one of the scientists Lane asked to collaborate on the Millicell project when Mostov was still at the Whitehead Institute. Mostov says, "I wouldn't have been able to do the science I have done for the past 15 years without Hank's help." He believes that the field of Epithelial Biology "owes Hank a great debt of gratitude for the work he has done in developing products for our research and for the way he has brought people together to work on various projects."

Lane's wife, Judy, is a nurse, most recently in the community public health sector. Their oldest son, Tim, 14, has inherited his father's passion for research, as well as video production: the two Lanes, father and son, recently signed up to take a course on video directing, production, and editing at the local community cable TV station. Lane's younger son, Alex, 12, is studying guitar and hopes to become proficient on both electric and 12-string acoustic models. Lane and his family live in an old New England farm house in rural Carlisle, Massachusetts, outside Boston. "We raise chickens, turkeys, pheasants, pigeons, doves and several other creatures in our four-story barn. My boys have a few reptiles and amphibians wandering , or hopping as the case may be, around in cages in our living room."