OBITUARY

Charles Saul Lieber, A Tribute (13 February 1931 to 1 March 2009)

Hepatologists, gastroenterologists and alcohol researchers throughout the world were deeply saddened to learn of the death of Dr Charles Saul Lieber on 1 March 2009. Dr Lieber died at his home in Englewood Cliffs, NJ, at the age of 78.

Charles Lieber was the father of modern alcohol research: he was a pioneer and giant in the field starting to investigate the effects of alcohol on the liver as early as the late fifties—when the dogma still existed that alcohol was no more toxic than sugar water. Indeed, Dr Lieber’s studies established that alcohol itself is hepatotoxic. The success of these studies was due, in part, to the development of experimental models of alcohol-induced liver injury based on overcoming the aversion of animals to ethanol by its incorporation into totally liquid diets—an experimental technique developed by Dr Lieber and Mrs Leonore DeCarli—which has gained worldwide acceptance. With this technique, it was demonstrated that ethanol can produce fatty liver despite adequate diets, an observation later confirmed in human volunteers. It was also shown for the first time that even when given an adequate diet, alcohol can produce liver cirrhosis in the baboon.

Among Dr Lieber’s most important discoveries was the description of a new pathway for ethanol metabolism, the cytochrome P-4502E1-dependent microsomal ethanol oxidizing system (MEOS). The discovery of this pathway has contributed to the identification of many mechanisms responsible for the well-known clinical observations such as alcohol–drug interactions, alcohol-mediated carcinogenesis, alcohol-associated changes in the intermediary metabolism and finally alcohol-related organ damage.

In more than 1000 publications over more than 50 years Dr Lieber contributed more than anybody else to the understanding of ethanol metabolism, toxicity and organ injury. He is still the most frequently cited scientist in the field of pathology worldwide, and one of his articles is among the 10 most cited from 1996 to 2000.

Dr Lieber, a Belgian by birth, escaped the Nazi occupation of Belgium by fleeing with his mother through France into Switzerland at the age of 9. There he spent four years until the end of the war with a Swiss family attending a German speaking school. After the war, he went back to Belgium where he studied medicine in Brussels. He made one of his most important discoveries at the young age of 28, when he was able to demonstrate indirectly the existence of gastric bacteria. This was 26 years before B. Marshall and R. Warren received the Nobel Prize for their direct proof of Helicobacter pylori.

From 1958 to 1963, Dr Lieber began to study the effect of alcohol on the liver at the Thorndike Memorial Laboratory at Harvard Medical School in Boston. In those days, the dogma...
prevailed that the liver disease caused by alcohol was due to malnutrition and not to any toxicity of alcohol. Here in Boston, Dr Lieber started a unique and outstanding career in the field of alcohol research. After a short time at Bellevue Hospital, Cornell Medical College, New York City, from 1963 to 1968, he became Director of the VA Alcohol and Research Center in the Bronx, New York.

At the Laboratory of Alcohol Research, Liver Disease and Nutrition in the VA Medical Center, Charles Lieber guided us and many others of the more than 200 fellows in total with his boundless energy, brilliant ideas and a frontier spirit (yes we can do it!) into the complex, exciting and attractive world of alcohol research. We will never forget lunch meetings in which within minutes new aspects of old questions opened up and were developed with great creativity into new directions. In this process, Dr Lieber always was one corner ahead, juggling with new ideas and concepts like a great magician. It was in the seventies when Dr Lieber married Dr Maria Leo who joined the laboratory from Italy and became well known especially for her work on vitamin A.

Fellows from all over the world exchanged their opinions, became friends and some of them are still friends up to now. The seeds of alcohol research planted by Charles Lieber flourished and many of his former fellows established their own Alcohol Research Laboratories years later. Those days in the Bronx were most enjoyable also because of three very important personalities who worked with Dr Lieber until the end of 2008. These are Mrs Leonore DeCarli, the Head Technician, Mrs Florence DeMara, the Chief Secretary, and Ms Nancy Lowe, a charming young lady who run the laboratory as an outstanding technician at many sites at the same time for different fellows without losing her friendly behaviour. Whenever we as fellows had any questions or problems within or outside the lab, all of them helped us in a wonderful way.

Charles Lieber died as he lived, working to the very end. He still was in his laboratory at the end of last year. We last saw him at the RSA/ISBRA Congress 2008 in Washington, DC, in July, where I (H.K.S.) had a long personal conversation with him, my last conversation with him face to face.

Charles was a world citizen, a scientist of the highest calibre, leader, teacher, mentor, a brilliant thinker and a humanist with a profound intellect and great charisma. Above all, Charles will be remembered for his boundless energy, compassion and generosity. A great scientist and a wonderful man has passed away—our hearts are full of sadness.

Charles, your students, friends and colleagues will miss you very much.

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