The Party - 30 October 2009

CELEBRATING RICH LAURSEN’S 43 YEARS AT BOSTON UNIVERSITY
SAVE THE DATE

To

Celebrate the Career and Promotion to Professor Emeritus

Of

Our Advisor, Mentor, and Friend

RICH LAURSEN

Friday, October 30, 2009
5:30 pm, Cocktail Reception
7:00 pm, Dinner
Boston University, SMG 4th Floor
RICH AND IRENE
Retirement Celebrations Honoring

RICHARD A. LAURSEN
Professor Emeritus
Boston University - Department of Chemistry

– Welcome –
John Straub - Chair, Department of Chemistry

– Video –
“Rich Laursen and Some Branches of the Tree”

– Speaker Program –
  ▪ Alex Bonner – Master of Ceremonies
    President and Managing Partner, Biolink
  ▪ Ms. Sarah Laursen
  ▪ Scott Mohr, Professor, Department of Chemistry, Boston University
  ▪ Wei-Chiang Shen - Professor of Pharmaceutical Sciences, School of Pharmacy, University of Southern California

– Presentation of Gift –

Friday – 30 October 2009
SCHOOL OF MANAGEMENT FOURTH FLOOR ATRIUM

THE "SCARLETT COMBO"

STUDENT GREETERS
CHEMISTRY DEPARTMENT TRIBUTE
(WRITTEN BY LISA CHRISTADORE, 4TH YEAR GRADUATE STUDENT IN CHEMISTRY)

In 1966, BU welcomed Richard Laursen to the Department of Chemistry, which at the time, consisted of only a dozen faculty and a handful of labs. Forty-three years later, Rich’s innovation and dedication have helped to transform the chemistry program into the academic and research powerhouse it is today.

Rich was born in Illinois and raised in California. At 14, he bought his first chemistry set: by 17, he was operating a home-run lab and envisioning himself as a professional chemist. He received his BS in chemistry in 1961 from UC, Berkeley, and earned his Ph.D. in organic chemistry in 1964 at the U of Illinois at Urbana-Champaign, working with Dr. Nelson Leonard. In 6 months, Rich had synthesized and determined the structure of the DNA base derivative, dihydrotiacanthine and investigated the molecule’s biological properties. This work started his life-long fascination with biochemical problems. Rich did his postdoctoral work at Harvard with Frank Westheimer, focusing on the active site of acetoacetate decarboxylase and initiating work on solid-phase Edman degradation of peptides. His work in solid-phase sequencing is what Rich now calls his “claim to fame.”

In the 70’s, protein and nucleic acid research was unexplored territory. Rich recognized the vast potential for biological discovery in protein sequencing, which became the focus of his newly established lab at BU. According to former graduate student, Alex Bonner, Rich’s fascination with evolving research topics was typical. “Rich frequently took the path less traveled,” Bonner notes. While at Harvard, Rich had found Edman degradation chemistry tedious and laborious. Although it was the benchmark for sequencing amino acids, he imagined there had to be a better way to determine a protein’s primary structure. With the recent invention of solid-support peptide synthesis, Rich wondered, “Why not synthesize and sequence peptides on a solid support?” In 1970 he developed one of the first automated peptide and protein sequencing instruments, which two of his PhD students successfully marketed as the “Laursen Sequencer.”
In 1975 Rich, Alex Bonner, and Marc Horn organized the “The First International Conference on Solid Phase Methods in Protein Sequence Analysis” at BU. This first meeting was the result of Rich’s desire to facilitate idea exchange among researchers involved in automated sequencing. Since then, 18 biennial conferences have been held worldwide.

Rich went on to determine the primary structures of numerous proteins and peptides – including the first ribosomal protein, human plasminogen, mussel adhesive protein and ginger root proteases. More recently, he and co-workers synthesized a peptide mimic of α-helical type I antifreeze protein, elucidating the crystal growth inhibition mechanisms of this unique protein. In 1988, Rich became the first recipient of the Millipore-sponsored Pehr Edman Award “for outstanding contributions to the methodology of protein sequence analysis.”

Over the past decade, Rich’s interests have turned from peptides to paints and dyes. He and co-worker Xian Zhang have initiated studies on natural dyes found in ancient fabrics, tapestries and paintings. After his sabbatical from BU at the Metropolitan Museum of Art, they implemented their new extraction method to successfully characterize and identify the plant source of yellow dye flavanoids found in north Peru’s pre-Columbian textiles. Rich has traveled through China’s Gobi Desert, cave temples in Xinjiang Province, and into Uzbekistan to collect historical textile threads. He strongly believes “face to face contact” is vital to understanding native cultures and for showing respect for their sacred works of art.

Rich has received multiple research awards, including the NIH Research Career Development Award (1969-1974), the first ever received at Boston University. He was a guest scientist at the Max Planck Institut für Molekulare Genetik in 1971, an Alfred P. Sloan Fellow (1972-1974), and an American Association for the Advancement of Science Fellow in 1990. In 1998, Rich was awarded honorary professorship “for great contributions to life science research” by Hunan Normal University.
As an educator, Rich has inspired decades of students to pursue chemistry and biology for practical applications. Many of his lab members have transitioned into successful industrial careers. As a scientist, Rich has made seminal discoveries in protein sequencing and art history. “Whether it was solvent flow or dye molecule extraction, Rich’s thinking has been unfailingly outside of the box,” recalls former graduate student, J.D. Dixon.

Rich has been integral to the expansion of the Chemistry Department, leading redesign efforts for the new Metcalf Science Center in the 1980s. As a colleague, Rich is admired for his willingness to exchange ideas. He has worked hard, selflessly, and with an air of calmness that has facilitated collaboration and creativity.

Rich’s “better to express than impress” attitude will forever pervade the corridors, laboratories, and classrooms of this institution. BU recognizes Rich’s contributions by promoting him to its ranks of Professor Emeritus and honoring him as a renowned leader in scientific discovery.