Spring 2012

The ACA Council has decided to rename two of the ACA Pauling Poster Prize Awards to recognize the contributions of two highly respected crystallographers.

The **Pauling-Branson Award** recognizes the contributions of **Herman Russell Branson**, (1914-1995), one of the first African American physicists to make crystallography the focus of his research. Branson was born in Pocahontas, VA and received his BS from Virginia State College in 1936, and his PhD in physics in 1939 from the University of Cincinnati, under the direction of Boris Padowski. After a stint at Dillard University, he joined Howard University in 1941 as an assistant professor of physics



and chemistry. He remained at Howard for 27 years, achieving increasingly important positions. He chaired the Department of Physics, directed a program in experimental science and mathematics, and worked on Office of Naval Research and Atomic Energy Commission projects in physics while at Howard University.

In 1948, Branson took a leave and spent time in Linus Pauling's lab at Caltech.

There he was assigned work on the structure of proteins; specifically he used his mathematical abilities to determine possible helical structures that would fit both the available x-ray data and a set of chemical restrictions outlined by Pauling. After some months Branson handed in a report narrowing the possible structures to two helices, a tighter coil Pauling termed *alpha*, and a looser helix called gamma. Branson then returned to Howard to work on other projects but the work was ultimately published in a paper with Pauling and his assistant Robert Corey (Pauling, Corey and Branson (1951) PNAS, 37, 205-211). This was the only paper on the topic that included Branson as a co-author and he later felt that he did not receive enough credit for his contributions. At Howard Branson organized cross-disciplinary research teams of physicians, engineers, mathematicians, biologists, chemists, and physicists. After more than two decades of trailblazing research, he went on to serve as president at two historically black colleges, Central State University in Ohio (1968-1970) and Lincoln University in Pennsylvania (1970-1985).

The **Pauling-Sundaralingam Award** recognizes the groundbreaking crystallographic research on the stereochemistry of nucleotides and nucleic acids done by **Muttaiya Sundaralingam**, (1931-2004), and his colleagues.

Muttaiya Sundaralingam, known as Sunda, was born in Taiping, Malaysia. He came to the US in1959 and received a PhD in Chemistry / Crystallography with George Jeffrey (U Pittsburgh). After doing a postdoc with Lyle Jensen (U Washington) he held positions at Harvard, Case Western Reserve and Oxford University. From 1969 -1989, he served as Professor of Biochemistry and Steenbock Professor of Biomolecu-



lar Structure at U Wisconsin. After retiring in 1989, he accepted a position as Ohio Regents Eminent Scholar and Professor of Chemistry and Biochemistry at Ohio State University. He retired from that position in 2002. He then continued his research interests as an emeritus professor.

Sunda had an abiding interest in nucleic acid structure. His work had implications for the structural principles governing the folding of nucleic acids, about which little was known at the time of his research. Sunda and his many students identified the critical role played by the sugar moiety in determining the conformation of the nucleotide repeating unit and, ultimately, the sugar-phosphate backbone of nucleic acids. His work is so often cited in the literature and in textbooks of biochemistry and biophysics that he was among the top 300 of the 1,000 most cited scientists for work published from 1965-1978.

Sunda, and his wife Indrani, died together the morning of December 26, 2004 when their hotel on the beach in Nilaveli, a small village just north of Trincomalee, Sri Lanka was struck by the tsunami.