NIST Director and Standards Alumni Association honor former Associate Director of CARB

October 29, 2018 -- Imparting a lasting legacy is the hope and dream of most people, but perhaps none more so than those who devote their lives and careers to scientific discovery and education.

Dr. Gary L. Gilliland, already highly respected and recognized for his many research discoveries and contributions to science, was honored again on Friday morning, October 26th, with a portrait in the National Institute of Science and Technology (NIST) Portrait Gallery of Distinguished Scientists, Engineers, and Administrators. Nine portraits were added this year in a ceremony at NIST. Gilliland’s recognizes his outstanding leadership and technical excellence, from 1985-2005, in advancing structural biology at the National Bureau of Standards (NBS), now NIST, leading the NIST/University of Maryland Biotechnology Institute Center for Advanced Research in Biotechnology (UMBI CARB), and establishing NIST’s structural biology database efforts.

Gilliland served as the Associate Director of UMBI CARB, a partnership among the University of Maryland College Park (UMCP), Montgomery County, and NIST, twice – from 1991-1996 and from 2002-2003. CARB later evolved into the University’s current Institute for Bioscience and Biotechnology (IBBR), a partnership among UMCP, University of Maryland Baltimore (UMB), and NIST.

A world-renowned expert in protein X-ray crystallography, Gilliland solved and contributed an impressive ninety-nine protein structures to the Protein Data Bank (PDB) during his tenure at NIST. The PDB is the single, worldwide repository of structural data for biological macromolecules and a vital resource for advancing medical treatments and biotechnology products. He also conceived of and developed the Biological Macromolecule Crystallization Database (BMCD), which facilitates crystal screening and archives crystallization data from published reports for biological macromolecules that have produced crystals suitable for X-ray studies. He received a U.S. Department of Commerce Bronze Medal in 1986 for his development of the BMCD, which is still in use and hosted by IBBR.
Dr. John Marino, IBBR Associate Director and Group Leader of the Macromolecular Structure and Function Group at NIST, had the privilege of working with Gilliland. “It is wonderful to see Gary recognized by NIST’s Alumni Association for both for his early leadership at NIST and CARB and his significant accomplishments as a structural biologist and scientific mentor. Gary’s early work to launch NIST’s involvement in structural biology, bioinformatics, and other areas of bioscience metrology has carried forward to this day in NIST programs that support the biotechnology and biopharmaceutical industry.”

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