IN MEMORIAM

Theodore Thomas Puck
(1916–2005)

Theodore Thomas (T. T.) Puck joined the faculty of the University of Colorado School of Medicine in Denver in 1948 and set about establishing a Department of Biophysics and Genetics, the first of its kind in the country. His initial aim was to develop techniques by which to carry out quantitative genetic experiments with mammalian cells like those that were providing seminal insights in Drosophila, bacteria and phage. A physicist/physical chemist by training, he realized that this required a diverse faculty, so he began to gather around him an outstanding collection of researchers including pediatricians, physical chemists, biochemists, geneticists, microbiologists, biologists, mathematicians and physicists who, along with talented students and postdoctoral fellows, created within 10 years one of the premier groups in the world for quantitative studies of the biophysical and biochemical genetics of mammalian cells. He was also adept at fostering close relationships, both practical and theoretical, with scientists from other laboratories, most notably with the Los Alamos National Laboratory. These colleagues and collaborators are literally too numerous to mention.

The work of special importance to radiation biology began appearing in the mid 1950s. These included pioneering papers that provided the first conceptual and methodological advances underpinning all subsequent quantitative work with mammalian cells and that described methods for the clonal growth of epithelial and fibroblastic cells from normal tissues, the farsighted development of defined media and incubators still widely used today, definition of molecular growth requirements and factors, the use of feeder layers to further enhance growth, and definition of the chromosomal constitution of cells in culture and cells from humans. The X-ray survival curves for HeLa S3 cells and later other human cells also