1935 | Dr. Britton Chance Ch’35 Gr’40 Hon’85, Philadelphia, the Eldridge Reeves Johnson Professor Emeritus of Biophysics, Physical Chemistry, and Radiologic Physics; Nov. 16. A pioneer in biochemistry and biophysics for more than 50 years, he was a world leader in transforming theoretical science into useful biomedical and clinical applications. He was also a world-class yachtsman who won a gold medal for sailing (5.5-meter yacht class) at the Helsinki Olympics in 1952. As a teenager he devised and patented an automatic steering mechanism for ships. While a student at Penn, he invented a tool for measuring chemical reactions involving enzymes, which led to the establishment of a fundamental principle of enzyme kinetics. Dr. Chance’s later work, in magnetic-resonance spectroscopy and near-infrared optics, aided in the development of techniques to detect breast cancer and muscle tumors, and to assess cognitive brain function. During World War II he worked on microwave radar at the MIT Radiation Laboratory. After earning a second doctorate from the University of Cambridge in 1942, Dr. Chance became a fellow in Penn’s Eldridge Reeves Johnson Foundation for Research in Medical Physics, where he worked on enzyme kinetics. In 1949, while professor and chair of biophysics and physical biochemistry at the University, he was appointed director of the Johnson Foundation, a position he held until 1983. In 1964 he was named the Eldridge Reeves Johnson Professor. During the 1990s he was director of the Institute for Biophysical and Biomedical Research, part of the University City Science Center; and in 1998, he became president of the Medical Diagnostic Research Foundation. Dr. Chance’s research was continually funded for 70 years, and six of his papers reached more than 1,000 citations. In 2001 he unveiled a detection technique, developed with collaborators at Penn and Harvard, that uses fluorescent molecules to track and illuminate malignant cells in the breast. More recently he was part of a team that proposed developing a portable, real-time system for monitoring and imaging brain function. Elected to the US National Academy of Sciences from 1972 and a fellow of the Royal Society, he also received honorary degrees from Pennsylvania and several other international universities. His honors include a National Medal of Science in 1974; the Franklin Medal from Philadelphia’s Franklin Institute; the Heineken Prize for Biochemistry and Biophysics from the Netherlands Academy of Science and Letters; the Benjamin Franklin Medal for Distinguished Achievement in the Sciences, given by the American Philosophical Society (for which he served as vice president); and the Christopher Columbus Discovery Award in Biomedical Research, from the National Institutes of Health. In 1995 the University named the Stellar-Chance Laboratories partly in his honor.