Nobel Laureates at the College of Physicians and Surgeons

For years, College of Physicians and Surgeons alumni, faculty, and researchers have led groundbreaking clinical and basic scientific studies that have transformed our understanding of human biology and advanced the practice of medicine. On many occasions, this work has been honored with the Nobel Prize.

The scope of research led by P&S Nobel laureates is tremendous. Although most of our prizewinners were honored for work in physiology or medicine, two alumni received the prize for chemistry. Their research has fundamentally shaped the course of numerous fields, including cardiology, neuroscience, genetics, pharmaceutical development, and more.

Our Nobel laureates include:

- **André Cournand** and **Dickinson Richards** (P&S’23), whose work at P&S on cardiac catheterization—a method of inserting a tiny tube into the heart—provided the basis for open-heart surgery and interventional cardiology
- **Baruch Blumberg** (P&S’51), who discovered the hepatitis B virus and helped develop a test and a vaccine for the virus
- **Joshua Lederberg**, a Columbia College and P&S graduate student who showed that bacteria can exchange genes when they reproduce, creating a way to model and study genetics in higher organisms
- **Harold Varmus** (P&S’66), who demonstrated how genes in normal human and animal cells can mutate to cause cancer, leading to a new generation of research on the genetic origins of cancer
- **Eric Kandel**, current University Professor, who showed how memories are stored in nerve cells, greatly enhancing the study of long- and short-term memory formation
- **Richard Axel**, current University Professor, who, with Linda Buck, a postdoctoral fellow in his Columbia lab, discovered how genes code for the odorant sensors in our nose, elucidating the human sense of smell, one of the most complex functions of the brain
- **Robert Lefkowitz** (P&S’66), whose research showed how an important group of receptors helps cells sense their environment, work that has driven an enormous field of pharmaceutical research and development

Read our full list of P&S Nobel laureates on the following page.
Nobel Laureates at the College of Physicians and Surgeons

All prizes awarded in Physiology or Medicine, except as indicated in parentheses.

1946: Hermann J. Muller, B.A., 1910; M.A., 1911; Ph.D., 1916; faculty member, 1918-1920
1950: Edward C. Kendall, B.S., 1908; M.A., 1909; Ph.D., 1910
1956: Dickinson W. Richards, M.A., 1922; M.D., 1923; faculty member, 1925-1973
1956: Andre F. Cournand, faculty member, 1935-1988
1958: Joshua Lederberg, non-graduating ‘48; faculty member, 1990-1999
1964: Konrad E. Bloch, Ph.D., 1938; faculty member, 1938-1946, 1966
1969: Salvador E. Luria, faculty member, 1940-1942
1972: William Stein, Ph.D., 1938 (Chemistry)
1976: D. Carleton Gajdusek, postgraduate training, 1946-1947
1976: Baruch S. Blumberg, M.D., 1951
1978: Daniel Nathans, intern and medical resident, 1954-1959
1980: Baruj Benacerraf, B.S., 1942
1982: Sune Bergstrom, research fellowship, 1940-1941
1990: E. Donnall Thomas, faculty member, 1955-1963
2000: Eric Kandel, faculty member, 1972-present
2004: Richard Axel, A.B., 1967; faculty member, 1978-present
2008: Martin Chalfie, Ph.D. (Chemistry), faculty member, 1982-present
2012: Robert Lefkowitz, M.D., 1966 (Chemistry)
2013: James Rothman, Ph.D.; former faculty member and current adjunct professor of physiology & cellular biophysics