On Campus

CUMC’s Axel and Former Postdoc Share Nobel Prize

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Richard Axel, MD ’67CC of Columbia University won the 2004 Nobel Prize in Physiology or Medicine along with Linda B. Buck of the Fred Hutchinson Cancer Research Center in Seattle for research clarifying how the olfactory system works. Buck was a postdoctoral fellow at Columbia when she and Axel jointly published the fundamental paper on the subject in 1991. The prizes were announced in October.

The work of Axel and Buck has provided understanding on how the nose is able to distinguish more than 10,000 distinct smells. The researchers discovered more than 1,000 different genes that encode olfactory receptors in the nose, believed to be the largest gene family in the human genome.

“This honor represents the long efforts of the many faculty, students, and fellows who have worked within our laboratories at Columbia University Medical Center,” said Axel. “I have received enormous support over the years, beginning with the scholarship I received to attend Columbia College.”

Axel is University Professor, Columbia University; Investigator, Howard Hughes Medical Institute at the College of Physicians & Surgeons; Investigator, Kavli Institute for Brain Science at Columbia; and member of the CUMC’s Center for Neurobiology and Behavior. He has been at CUMC his entire career.

Axel and Buck join 70 Columbians whose work has been recognized by the Nobel Foundation, including 19 in the category of physiology or medicine. “Their experiments represent the highest form of creativity, scientific discipline, and scholarship,” said David Hirsh, Columbia’s executive vice president for research. “This is science at its most beautiful.”

Guide to school abbreviations