ADD IT UP. Lennart Carleson of Sweden’s Royal Institute of Technology in Stockholm is this year’s recipient of the $920,000 Abel Prize in mathematics from the Norwegian Academy of Science and Letters.

Carleson, 78, is best known for a 1966 paper proving a long-standing conjecture about the Fourier series, a mathematical tool used to analyze oscillatory phenomena, from pulsars to sound waves to atomic vibrations. In 1991, Carleson and colleague Michael Benedicks gave a rigorous proof that a dynamical system known as the Henon map possesses a signature of chaos known as a strange attractor. “The remarkable aspect of Carleson’s style is that his methods are very constructive—almost like algorithms—but simultaneously very ingenious and deeply original,” says Benedicks.

DEATHS

ENDURING PRINCIPLES. Nearly every student of neuroscience is familiar with Columbia University neurobiologist James Schwartz through his 1414-page textbook. Colleagues say Schwartz was working on the fifth edition of Principles of Neural Science up to a few days before his death from leukemia 13 March in New York City. He was 73.

Schwartz was known not only for the seminal textbook but also for his research. He advanced our understanding of the biological basis of memory, says Columbia’s Eric Kandel, 2000 Nobelist and co-editor of the textbook’s first edition.

Schwartz was actively involved with the American Numismatic Society. “He was a wonderful, generous, and very cultured person with a deep interest in all of science,” says Kandel.

VIRTUOSO EDITOR. Nicholas Cozzarelli, a molecular biologist at the University of California, Berkeley, and editor-in-chief of the Proceedings of the National Academy of Sciences (PNAS), died 19 March from complications related to cancer. He was 67.

The son of an immigrant shoemaker who rued his own lack of education, Cozzarelli did his dad proud by studying at Princeton, Yale, and Harvard. “I’d consider Nick a virtuoso in the field of DNA topology,” says Stephen Benkovic of Pennsylvania State University in State College, of his work on how enzymes control the shape of DNA.

As PNAS editor since 1995, Cozzarelli promoted open access and allowed researchers to submit articles directly rather than having them put forward only by academy members. “It was one innovation after another that raised the importance and visibility of the Proceedings,” says Richard Losick of Harvard University.

Three Q’s >>

Adel Mahmoud, 64, has taken on the daunting challenge of organizing the scientific community to speed the development of an AIDS vaccine. In September, the former president of Merck Vaccines becomes the first chief executive of the Global HIV Vaccine Enterprise (Science, 27 June 2003, p. 2036).

Q: People have difficulty understanding what the enterprise is. What do you say to them?
We have tried investigator-initiated grants. We have tried program projects. We have tried the industrial approach. The fact is simple: 22 years, and we have no vaccine. So, can we model ourselves around a global effort in which the scientific community agrees that these are the targets we want to pursue and leaves the funders to fund pieces according to their wishes? My job is to try to apply business planning and a disciplined approach to that vision.

Q: Unlike at Merck, you can’t hire people, set budgets, or apportion lab space. What actual influence can you have here?
I can use persuasion and pressure by the global community and the imperative of getting us an HIV vaccine. These are very, very credible forces.

Q: Pharmaceutical companies are terribly secretive. Will you post timelines on the Web?
Yes. If I’m going to put this on a piece of paper hidden in somebody’s desk, what value would that have?