



Scientific honor roll includes old genetic rivals

Collins, Venter among recipients of White House science and tech medals

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The leaders of competing efforts to decode the human genome were cited Thursday for presidential honors, almost a decade after the "genome race" ended in a tie.

Among the recipients of the National Medal of Science listed by the White House are Francis Collins, who led the government-organized Human Genome Project in the 1990s; and Craig Venter, who established a for-profit corporation called Celera Genomics to pioneer a "shotgun" approach to whole-genome sequencing.

Celera made rapid progress on the genome quest, sparking an acceleration in the publicly funded effort. Both groups ended up publishing their results in February 2001 — with the draft from the public project appearing in the journal *Nature*, and the draft from Celera appearing in *Science*.

Since then, both Collins and Venter have taken on new challenges. This year President Barack Obama named Collins to head the National Institutes of Health, while Venter's current focus is the development of a synthetic genome.

Collins, Venter and other honorees will receive their medals Oct. 7, the White House announced.

Other recipients of the National Medal of Science include:

- Berni Alder of Lawrence Livermore National Laboratory, considered one of the founding fathers of computer simulation.
- Joanna Fowler of Brookhaven National Laboratory, a chemist who pioneered the field of medical imaging.
- Elaine Fuchs of The Rockefeller University, a biologist specializing in the study of skin stem cells.
- James Gunn of Princeton University, an astrophysicist known for his work in camera design and the study of galaxy formation.
- Rudolf Kalman of the Swiss Federal Institute of Technology, co-inventor of a mathematical technique known as the Kalman filter that is built into a wide variety of control systems.
- Michael Posner of the University of Oregon, a psychologist specializing in the study of cognitive functions such as attention and memory.
- JoAnne Stubbe of the Massachusetts Institute of Technology, a chemist studying the mechanisms behind DNA replication and repair.

This year's recipients of the National Medal of Technology and Innovation include:

- Forrest Bird of Percussionaire Corp., honored for his pioneering work in the field of respiratory and cardiopulmonary care, including the BABYBird respirator for infants.
- Esther Sans Takeuchi of the University at Buffalo, SUNY, for the development of medical battery technologies.
- John Warnock and Charles Geschke of Adobe Systems, for their contributions to the desktop publishing revolution.
- IBM Corp., for development of the IBM Blue Gene supercomputer.

"These scientists, engineers and inventors are national icons, embodying the very best of American ingenuity and inspiring a new generation of thinkers and innovators," Obama said in Thursday's White House statement. "Their extraordinary achievements strengthen our nation every day — not just intellectually and technologically but also economically, by helping create new industries and opportunities that others before them could never have imagined."

The National Medal of Science was created by statute in 1959 and is administered for the White House by the National Science Foundation. Awarded annually, the medal recognizes individuals who have made outstanding contributions to science and engineering.

The National Medal of Technology and Innovation has its roots in a 1980 statute and is administered for the White House by the U.S. Department of Commerce's U.S. Patent and Trademark Office. The award recognizes individuals or companies for their outstanding contributions to the promotion of technology for the improvement of the economic, environmental or social well-being of the United States.

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