

Laser pioneer or electrochemist for Nobel?

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(AP) -- Americans William Moerner, Allen Bard and Richard Zare could be among the potential candidates when the Nobel Prize in chemistry is announced Wednesday.

Guessing a winner among scores of discoveries in such a broad field as chemistry is notoriously hard but that doesn't stop people from trying.

Recent discoveries are more or less ruled out because Nobel jurors look for research that has stood the test of time. Typically, Nobel winners have received plenty of other awards before they get the call from Stockholm.

Both Zare, a laser chemistry pioneer at Stanford University, and Bard, an electrochemistry expert of the University of Austin, Texas, have been decorated with multiple honors, including the Priestley Award, handed out by the American Chemical Society, and Israel's Wolf Prize.

Bard shared the latter in 2008 with Moerner, of Stanford University, for creating a new field of science: single-molecule spectroscopy and imaging.

Should the chemistry prize committee chose a woman, for a change, American Jacqueline Barton, of the California Institute of Technology, could get the nod for her work on the transport of electrons in DNA.

Only four women have won the chemistry prize since the awards were first handed out in 1901: French scientist Marie Curie (1911), her

daughter Irene Joliot-Curie (1935), British chemist Dorothy Crowfoot Hodgkin (1964) and Ada Yonath of Israel (2009).

Other names that routinely pop up in Nobel speculation include Americans Stuart Schreiber and Gerald Crabtree for work that sheds light on how [tiny molecules](#) can be used on cell circuits and signaling pathways.

If the prize honors nanotechnology - the science dedicated to building materials from the molecular level - possible winners could include American Charles Lieber, British chemist James Fraser Stoddart or Japan's Sumio Iijima, who discovered carbon nanotubes in 1991.

The Nobel Prize in chemistry announcement will cap this year's science awards.

Immune system researchers Bruce Beutler of the U.S. and Frenchman Jules Hoffmann shared the medicine prize Monday with Canadian-born Ralph Steinman, who died three days before the announcement. U.S.-born scientists Saul Perlmutter, Brian Schmidt and Adam Riess won the physics prize on Tuesday for discovering that the universe is expanding at an accelerating pace.

Last year, the [chemistry](#) committee rewarded Japanese scientists Ei-ichi Negishi and Akira Suzuki and American Richard Heck for designing a technique to bind together carbon atoms, a key step in assembling the skeletons of organic compounds used in medicine, agriculture and electronics.

The 10 million kronor (US\$1.4 million) Nobel Prizes are handed out every year on Dec. 10, the anniversary of award founder Alfred Nobel's death in 1896.

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