China faces hurdles amid quest for a Nobel Prize

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In this photo taken on Sept. 28, 2010, a boy runs past a Nobel Prize medal exhibited in the China Science and Technology Museum in Beijing. It's Nobel season, and China is engaged in an annual bout of hand-wringing: why can't the country that invented gun powder and that recently rocketed from poverty to global power win one of the prestigious prizes? (AP Photo/Alexander F. Yuan)

(AP) -- It's Nobel season, and China is engaged in an annual bout of hand-wringing: Why can't the country that invented the compass and gunpowder - and that recently rocketed from poverty to global power - win one of the venerated prizes?

As Nobels went this week to British, Russian, American and Japanese scientists, Chinese media paired special reports on the winners with expert debates on why China came up short again.

A top reason: a government that throws money at research in pursuit of the prize, rather than reforming a rigid state-run education system that is heavy on rote memorization, discourages creativity and drives some leading minds to leave.

"We are too anxious for a Nobel Prize," the Chengdu Daily quoted Chinese-American physicist and Nobel laureate C.N. Yang as saying on a visit to a school last month.

More than another milestone, a Nobel would be proof that China is retaking what many Chinese see as its rightful place as one of the world's leading civilizations. For much of the past century, science assumed religious-like proportions in the minds of China's elite, admired as a key to resurrecting a country that had fallen behind the West.

"China's Nobel mania has been fueled by a sense of urgency," said Cao Cong, an expert on China's scientific endeavors and a fellow at The Levin Institute, a division of the State University of New York. "Only with accolades such as the Olympics and winning a Nobel Prize will China feel it can convince the world it has moved from the periphery to the center."

Nine ethnic Chinese have previously won Nobel Prizes, including Yang in 1957 for his work on subatomic particles. But none of them are Chinese nationals, and, with one exception, their groundbreaking work was done outside China, reinforcing a sense of failure among many Chinese.

The government has disowned other Nobels associated with China. It excoriated the awarding of the Peace Prize in 1989 to the Dalai Lama, the exiled leader of China-controlled Tibet. It disavowed author Gao Xingjian, who left China for France in the 1980s to escape censorship, when he won the Literature Prize in 2000. This year it has pressured the

Norwegian Nobel Committee to try to dissuade it from giving the Peace Prize to imprisoned democracy campaigner Liu Xiaobo.

Yet winning a Nobel has been an avowed goal and the lack of one, especially in science, gnaws at an increasingly confident China.

Visiting Nobel winners such as geneticist Oliver Smithies and RNA researcher Craig Mello are treated like rock stars, packing lecture halls in Chinese universities.

The government invested $3.75 billion in 147 long-term science projects in 2007. It is spending lavishly on a cosmic ray observatory, a subatomic particle accelerator and other cutting-edge research. Science policy czars and state media speak of an unofficial deadline to win a Nobel in five to 10 years.

Chinese authorities also have wooed Nobel jurors, inviting members from the medicine, chemistry and physics committees to Beijing in 2006 and 2008 and asking them what it takes to win the prize. The trips raised eyebrows abroad, but a probe by the Swedish government anti-corruption body found no evidence of bribery and said that picking prize-winners is so complicated that the influence of one juror is marginal.

"If they continue on this path, China is definitely capable of winning a Nobel Prize," said Pier Oddone, director of the Fermilab in Illinois, home to one of the world's largest particle accelerators.

But unlike the Olympics, where China charted a path to dominance by spending heavily on medal-heavy sports such as weightlifting, experts say that money can only go so far in securing a Nobel.

China's biggest hurdle is a science and academic structure that is hampered by plagiarism, bureaucracy and a traditional deference to

authority.

While science Nobels often are awarded for work done in a laureate's 30s or 40s, China's seniority-based hierarchy requires scientists to wait until late in their career to direct major research, said Cao, the State University of New York researcher.

Promising figures often are plucked from the laboratory and promoted to leadership posts in government, ending hands-on research. China's leading respiratory expert, Zhong Nanshan, was credited with helping to identify and then stem the SARS pneumonia outbreak in 2003. He was promoted and now juggles a half-dozen administrative roles, serving as the head or a leading member of many medical associations and research bodies.

Plagiarism has flourished at Chinese universities as researchers face greater pressure to publish to secure promotions. In December, two scholars were dismissed from their lecturer posts after their published papers in an international chemistry journal where found to be fraudulent.

Julia Lovell, a Chinese history and literature professor at the University of London, said China combines a yearning for recognition with resentment at seeking validation from others. She calls it "China's Nobel complex."

"You can also see the insecurity in the desire for a Nobel," said Lovell, author of "The Politics Behind China's Nobel Complex." "If a country is genuinely confident, then it doesn't need to seek an award."