Top scientist in academic row

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An article that helped Tohoku University President Akihisa Inoue win the Japan Academy Award has been retracted from a leading U.S. scientific journal after the author violated protocol by reusing his own previously published material without acknowledging it.

The incident, announced Friday, amounts to what is known in academia as "double publication," and is frowned upon because it can lead to suspicions that one is attempting to create the appearance of doing original research.

Double publication consists of the use of text, figures or data from earlier publications without citation. It is considered a severe breach of academic ethics.
The decision by Applied Physics Letters (APL) to seek the article's retraction raises serious doubts about Inoue's research and reputation. Inoue is a leading materials scientist and a member of the prestigious Japan Academy.

The results of Inoue's research are applicable to the development of many products, including mobile phones and biomedical devices.

The article in question, titled "Ductile quasicrystalline alloys," was received by the globally respected journal, which is published by the American Institute of Physics, on Oct. 7, 1999. It was published in its February 2000 edition, after lead author Inoue and his coauthors declared the manuscript to be original. However, the article had been accepted earlier — on Sept. 20, 1999 — by another scientific journal called Materials Science and Engineering (MSE), which published it in December 2000.

The date that a scientific article is "accepted" on is crucial for judging its contribution to scientific knowledge.

Telephone calls by The Japan Times seeking a response went unanswered Saturday and Tohoku University was unavailable for comment.

On Friday, APL announced on its website that "the authors retracted the article because identical contents were published as a part of" another article published in MSE.

The announcement added that the person who submitted the article, Junji Saida, an associate professor at Tohoku University in Sendai, had no prior knowledge that parts of it had previously been published. Inoue was the lead author of both articles, but Saida, who cowrote the APL version, did not contribute to the manuscript submitted to MSE.

The double publication also meant that APL was technically in breach of MSE's copyright for 11 years.

The article in question was among the 27 works cited by the Japan Academy, the country's most prestigious academic society, when it awarded Inoue the 2002 Japan Academy Award. The society consists of the top 150 scholars in the fields of humanities and natural science.

When awarding Inoue, the academy said his findings enabled
the creation of a glassy amorphous alloy rod with a diameter greater than 80 mm — a huge advance on previous rods less than 1 mm thick. Glassy amorphous alloys can be used in many products, including mobile phones, biomedical devices, batteries and shock-absorbing materials.

The achievements of scientists are gauged by the number of articles they write, how often they appear in leading journals, and how frequently their work is cited by their colleagues. Around 2000, Inoue was recognized as the most-cited materials scientist of the previous decade.

Inoue joined the Japan Academy and became president of Tohoku University in 2006. He was also re-elected vice president of the Japan Association of National Universities on June 22. In 2009, the American Physical Society awarded Inoue, along with California Institute of Technology professor William Johnson, the highly respected James C. McGroddy Prize for New Materials.

APL recently requested that Inoue and his fellow authors retract the article after a whistle-blower alerted the journal's editors. APL editor Nghi Q. Lam called the double publication a "transgression" and demanded the article be retracted. After a thorough investigation, APL determined that the main part of the article overlapped with sections of the MSE article by Inoue and others titled "High-strength aluminum and zirconium-based alloys containing nanoquasicrystalline particles."

Most of the five diagrams and photographs that appear in the APL article are either identical or differ minimally from the MSE publication and most of the description in the text overlaps with part of the MSE article, according to an informed source who requested anonymity.

This is not the first time Inoue has been involved in a double publication incident.

In April 2011, the U.S.-based Materials Research Society announced that Inoue and his coauthors had retracted an article titled "Formation and mechanical properties of Cu-Hf-Ti bulk glassy alloys," which appeared in its Journal of Materials Research in 2001, as basic data in the manuscript were the same as a previous article lead authored by Inoue in the Acta Materialia scientific journal in 2001, the source said. The latter
article was one of the 27 articles the Japan Academy cited in giving Inoue the Japan Academy Award.

In yet another case, the Japan Society of Powder and Powder Metallurgy recently decided to unilaterally delete an article coauthored by Inoue that appeared in the society's journal in 2003 because of double publication.