

PLOS ONE paper on cassava gene enhancement retracted

September 20 2012, by Bob Yirka



A manioc tuber. *Manihot esculenta*, also called yuca or casava. Credit: Wikipedia.

(Phys.org)—*PLOS ONE*, an open access peer review journal (launched in 2006) has issued a retraction regarding a paper it published recently touting the benefits of genetically enhanced cassava, saying that the results achieved by the research team could not be replicated and research materials used in the study could not be found.

[Cassava](#) is a root vegetable similar to the [yam](#) and is eaten in large quantities in the [developing world](#); because of that research efforts have been undertaken to see if it can be made more nutritious. Over the past few years, some progress has been made, as new strains have been found to contain more vitamins and ways have been found to make it more resistant to viruses.

As a part of that effort, a research team from the Donald Danforth Plant

Science Center, made up of members, Mohammad Abhary, Dimuth Siritunga, Gene Stevens, Nigel J. Taylor and Claude M. Fauquet submitted a paper to [PLOS ONE](#) which was subsequently published, which described a technique for genetically altering cassava causing it to express the zeolin gene, resulting in a nutritional protein being produced. Unfortunately, the results achieved by the team could not be reproduced in subsequent tests led by team member Fauquet, and worse, specimens produced in the original study, upon new examination were found to not have the zeolin gene after all.

The original research was led by Abhary who has subsequently left the Center and now it appears suspicion has arisen suggesting he might have falsified documents or duped his colleagues into believing research had been conducted that had not occurred.

The retraction highlights a growing concern in the academic community regarding the integrity of papers published in [science journals](#) though it does offer some optimism as well. Instead of trying to cover their mistakes, both the Danforth Center and *PLOS ONE* have been open and honest about the mistakes that were made and are apparently taking steps to prevent such an occurrence happening again.

Abhary, who has also left the country, has not commented on the [retraction](#) or anything else since leaving the Center in the middle of last year, before suspicions arose. He'd been with the Center since 2006. Meanwhile, the Center says that the paper in question published in *PLOS ONE*, was the only one Abhary worked on, at least for Danforth. An internal investigation is continuing.

More information: Transgenic Biofortification of the Starchy Staple Cassava (*Manihot esculenta*) Generates a Novel Sink for Protein, www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0016256

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