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Leading vitamin scientist faces fire over data

Doctor contends seniors clearly aided by vitamins

BY JILL MAHONEY

A scientific firestorm has erupted over the work of Canadian researcher Ranjit Chandra, who won international acclaim for ground-breaking studies into multivitamins that he later used to promote his own nutritional supplement.

An unprecedented editorial in the journal *Nutrition* questions the validity of Dr. Chandra's findings, saying he "failed to address" serious concerns and did not provide raw data so an expert could check his statistics.

"As a journal, we regret that our peer-review process failed to identify these problems before publication," wrote Michael Meguid, *Nutrition's* editor-in-chief.

In 2001, the journal published a paper by Dr. Chandra, who is an Officer of the Order of Canada, that concluded that a specific multivitamin and mineral formulation greatly enhances the memories of seniors. Dr. Chandra holds the patent for the formula, which is marketed under the name Javaan 50.

The study is not the only one by Dr. Chandra that has been thrown into question.

In 1992, he wrote in *The Lancet* that the supplement led to a vast improvement in the immune system of older people.

Shortly after his 2001 paper was published, two U.S. academicians began to doubt his work because of concerns over his use of statistics.

"It struck me as pretty suspicious initially," Seth Roberts, a psychology professor at the University of California, Berkeley, said in an interview.

"The results seemed incredibly good and that wasn't the only thing that was weird. There were all those other things and the more we looked into it, the more problems there seemed to be."

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'I invite Drs. Roberts and Sternberg to try such a supplement for a personal confirmation of our findings,' he wrote.

Dr. Roberts and Saul Sternberg, a psychology professor at the University of Pennsylvania, wrote a letter outlining the inconsistencies, which was published in the current edition of *Nutrition* along with Dr. Chandra's response.

In his letter, Dr. Chandra questioned the professors' motivations and says the journal had his papers reviewed before they were published.

"Can a nutrient supplement improve functional outcome in the elderly? The answer based on the objective evidence so far is an

unequivocal yes. I invite Drs. Roberts and Sternberg to try such a supplement for a personal confirmation of our findings," he wrote.

Dr. Meguid noted in his editorial, Dr. Chandra's response did not address their specific concerns.

Debra Spadaro, *Nutrition's* managing editor, acknowledged that the incident reflects badly on the peer-review process.

"Sometimes the peer reviewers, when we put the onus on them, they're just taking the data for face value. They aren't statisticians," she said, adding that the issue is a subject of ongoing discussion.

Ms. Spadaro said the journal did not publish the concerns earlier because it "wanted to make sure that everything that possibly could be done was being done on behalf of the author." She said, Dr. Meguid has a thick folder of correspondence regarding the controversy.

In June, *The Lancet* published a letter from Dr. Roberts, Dr. Sternberg and Kenneth Carpenter, professor emeritus of nutrition at the University of California, Berkeley, that raises similar concerns about Dr. Chandra's 1992 paper. It also printed Dr. Chandra's response.

Dr. Chandra did not respond to an e-mail seeking comment; an assistant to Dr. Chandra said he was travelling in a remote area of India.

Dr. Chandra conducted his research for the 1992 and 2001 papers in St. John's, where he was a professor of pediatric research at Memorial University's faculty of medicine for 27 years. He retired in 2001, after his *Nutrition* article was published.

Sharon Peters, vice-dean of Memorial's medical school, did not return phone messages.

REFERENCES: Meguid, Michael M., Shenkin, Alan: Introduction: nutritional supplements and the quest to improve human performance – the need for the strictest standards and rigor when reporting clinical trials. *Nutrition* **19** (#11-12): 955-956 (2003), and references 2 and 6 cited.

Roberts, Seth, and Sternberg, Saul: Do nutritional supplements improve cognitive function in the elderly? *Nutrition* **19** (#11-12): 976-978 (2003).

Carpenter, Kenneth J., Roberts, Seth and Sternberg, Saul: Nutrition and immune function: a 1992 report. *The Lancet* **361** (#9376): 2247 (2003).

Chandra, Ranjit Kumar: Nutrition and immune function: a 1992 report. *The Lancet* **361** (#9376): 2247-2248 (2003).

These references are available in the University of Waterloo Library's e-journals; the full title of the first is *Nutrition: The International Journal of Applied and Basic Nutritional Sciences*. The second *Lancet* reference is a repeat of the first in the e-journal but is Dr. Chandra's reply in the copy from *The Lancet's* home page.

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