

**From:** [Chassy, Bruce M](#)  
**To:** [Karen Batra](#)  
**Cc:** [Wayne Parrott](#); [L. Val Giddings](#); [Alan McHughen](#)  
**Subject:** Re: Bad Article in the Atlantic on Chinese RNA/biotech study  
**Date:** Tuesday, January 10, 2012 12:37:32 PM

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Karen

The ag biotech chat group has briefly discussed the article but we mostly adopted a wait and see attitude. The paper represents a major and fairly unexpected paradigm shift and should thus not be accepted until it has received careful scrutiny and vetting by the wider scientific community. Of this will require independent verification which has not to date occurred. One of the problems we face today in science, and it is one that confuses non-scientists, is the media publishing the results of single studies like this. Scientific acceptance is a much more deliberate process; it will take years for the Zhang paper to achieve widespread acceptance among scientists. That is if it stands up to scrutiny.

Personally, when I read it I found it pretty exciting and didn't see any immediate holes in the work. I have copied Wayne Parrott on this because he was a co-author on the ILSI siRNA paper. Wayne and I have discussed the Zhang paper. I'll let him speak for himself.

What I say above sounds like a weak response that might not be very persuasive. I would note that if Zhang's claims turn out to be true then we have been eating plant small RNAs since before we came down out of the trees and their influence on our bodies would be nothing new.

Conventional breeding and well as cultural conditions have all altered and influenced small RNA expression, and of course human dietary composition varies greatly. It would be a great leap of logic to assert that changing small RNA content using GM methods would be any different than the changes caused by other factors (eg. conventional breeding). That said, wouldn't it be great if we could eat broccoli and lower LDLs? If Zhang is right, it opens the door to manipulating plants to produce healthful outcomes. As regards the potential risks, they are the same as occur in all kinds of breeding; small RNA mediated changes occur all the time.

The article title is wrong at face value. The dangers are not very real. They are highly speculative and unproven. We are talking about a potential negative impact that is as yet unproven. The Atlantic is using a sensational approach to advance their editorial bias. Not good journalism and not good science but welcome to the misinformation age in which we live. Complaining about that won't get you far.

Regards

Bruce

On Jan 10, 2012, at 7:56 AM, Karen Batra wrote:

Good morning Val, Bruce and Alan!

I'm sure you have seen, but a Jan. 9 article in [The Atlantic](#) reports on new research on

RNA in rice and a potential negative impact on the safety of biotech foods. I have pasted the article, "***The Very Real Dangers of GM Foods***" below. The study was published in September 2011 in the journal *Cell Research* (view [abstract](#)).

We have been discussing whether and how to respond, especially given that the Atlantic's coverage of biotech has not been fair in the past. For most of us communications folks, the science here is way over our heads, and an appropriate response would have some kind of scientific defense. In other words, BIO just writing a letter saying "biotech foods are safe" isn't enough of a response here.

IFIC is also sending out a mass email asking folks to weigh in on the comments page.

If possible, could you all take a look and let me know what you suggest? Either post a comment yourself on the page or provide us with some top-line scientific points that we could use in a letter to the editor? Let me know your thoughts – thanks!

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## The Very Real Danger of Genetically Modified Foods

By Ari LeVaux  
Jan 9 2012, 7:57 AM ET [Comment](#)

*New research shows that when we eat we're consuming more than just vitamins and protein. Our bodies are absorbing information, or microRNA.*

Chinese researchers [have found](#) small pieces of ribonucleic acid (RNA) in the blood and organs of humans who eat rice. The Nanjing University-based team showed that this genetic material will bind to proteins in human liver cells and