

## CHINA

# Biochemist Wages Online War Against Ethical Lapses

Shi-min Fang hopes that his Web site will raise the level of debate in China about questionable practices by academics

**BEIJING**—Browsing through the online Chinese newspapers that he reads to keep up with events in his native country, San Diego biochemist Shi-min Fang was brought up short by an article in the 5 January issue of *Guangming Daily*. “Supplementing DNA is the secret of immortality,” it proclaimed, quoting a professor at Dalian Medical University in northeast China. “DNA supplements are necessary for pregnant women, students, physically weak people, and people in poor health, middle-aged people, and the aged,” it explained.

Fang was shocked by the claims from proponents of so-called nucleic acid nutrition, which uses material “extracted directly from animal organs with a high and pure DNA content.” He was disturbed that the article said the professor also owned a portion of a company that makes and sells these supplements. And he was appalled that another company that sells a similar product, Dalian Zhen-Ao Bioengineering, regularly uses photographs of 38 Nobel laureates in physiology or medicine in its TV commercials and promotional material (see picture).

Fang decided to launch his own investigation into the validity of the claims—and the environment that discourages knowledgeable scientists in China from challenging them. Over the next few months, he wrote 20 articles on the topic and posted them on a Chinese-language Web site ([www.xys2.org/pages/dajia.html](http://www.xys2.org/pages/dajia.html)) that he set up last year to shine light on questionable practices in academia. He even tracked down several of the Nobelists, who told him that they had not been contacted by the company, did not endorse its products, and were not aware of any health benefits stemming from the supplements.

This spring China’s Ministry of Health issued warnings against six kinds of nutritional supplements, including Dalian Zhen-Ao. The ministry declared that the advocates exaggerated the medical value of the product. A spokesperson for the company disputes media accounts that provincial health authorities also levied a fine, but she acknowledges that the company has “toned down” the advertisements in the wake of the warning.

Now a collection of Fang’s essays have been published as a book, *Ulcer: Confronting China’s Academic Corruption*. The volume has received favorable reviews in the Chinese scientific and academic press, and Fang is welcomed by those trying to foster a broader discussion of research ethics within the scientific community. “There are too few responsible criticisms of quality in the academic



**Not at face value.** Shi-min Fang (*inset*) has written critically of efforts by Chinese companies to add a scientific veneer to their product, like this ad for a DNA nutritional supplement that features pictures of 38 Nobelists.

world today,” writes Jiang Xiaoyuan, a science history teacher at Shanghai Jiaotong University, in a preface to the book.

Trained in the United States, the 34-year-old Fang is a consultant to a bioinformatics company and receives royalties from a biotech company that has licensed use of a protein from an HIV-related gene (*cyclin T*) that he and three other scientists cloned while he was a postdoc at the Salk Institute for Biological Studies in La Jolla, California. But his passion is as a writer and critic of pseudoscience and superstition among both the domestic and overseas Chinese communities. *Ulcer* is his seventh book, all written under the pseudonym Fang Zhouzi. “Very few independent critical voices can be heard, so I decided to do something about it,” he says. He describes himself as the boy in the fable “The

Emperor’s New Clothes,” who “happened to see through the misconduct in science and could not help but speak out.”

The primary target of his attacks on nutritional DNA, Cui Xiuyun, defends the value of the supplement and challenges Fang’s qualifications to judge her research. “It’s not surprising that a new breakthrough in research will be attacked,” she says. But Fang has stood his ground, citing his Ph.D. in biochemistry from Michigan State University and asking Cui to produce peer-reviewed publications supporting her claims. The exchanges have taken place on his Web site, which offers a forum for all points of view.

Fang’s book also raises questions about the bona fides of some returned Chinese scholars who have gained media attention for their alleged contributions to the country or discoveries in science. When Fang checked their backgrounds and their publications, he found that

some had exaggerated their achievements and that a few had even fabricated part of their academic records. The book discusses questionable conduct by 18 researchers at a dozen institutions, along with more than 30 media organizations that publicized their claims.

Yi Rao, a molecular neurobiologist at Washington University in St. Louis who is also associated with the Chinese Institute of Neuroscience in Shanghai, believes that Fang has the right to raise questions about the scientific merits of work that appears in lay publications and the credentials of their authors. “Not all scientists in China are used to the idea of openly criticizing a public personality,” Yi says. “I am not sure that Fang is correct in every case. No one is. But when

he is right, it can have a positive effect.”

There have been increasing appeals from the government to curb misconduct in the academic community in China over the past few years. But most of the campaigns have dealt with general tendencies and did not cite specific cases. Now that Fang has named names and directly challenged dubious claims, other critics of the status quo hope that he will be an example for others. “The ignorant have followed the noisemakers, while people of insight are often unwilling to confront those who engage in misconduct,” says Zhao Nanyuan, a professor of automation at Tsinghua University. “Then a Fang Zhouzi emerged to do so. This is not easy, [but] it will benefit the science community.”

—XIONG LEI

Xiong Lei writes for *China Features* in Beijing.