Shamelessness Shouldn't Be Anyone's Nature —— An Open Letter to Nature (Part XXVIII)

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Why Fang Shi-min Was Awarded the John Maddox Prize? (III): Who Is Albert Yuan the Nominator?

To answer the question "Why Fang Shi-min was awarded the John Maddox Prize," we not only need to know what kind of misinformation was used by the judges to make their wrongful decision, we also need to know how and why the misinformation was generated in the first place, and how and why the misinformation was presented to, and accepted by, the judges. Specifically, besides the facts I have already documented, i. e. the fraudulence and maliciousness of Mr. David Cyranoski's Brawl in Beijing and Mr. Yuan's nomination letter, we also need to answer the following questions: Who is the nominator Yuan? Why did he nominate Fang by lying? Why he was invited to make the nomination? In this part of the open letter, I am going to answer the first question, who is Yuan. Please note that by answering these questions, I'm also dissecting and examining a specimen of Fang's followers.

A Fake Doctor

On hudong.com (now baike.com), to which Mr. Yuan has been serving as a scientific advisor since July 2012, there is an entry of Yuan Yue (袁越, Albert Yuan's Chinese name), which introduces him as following[1]:

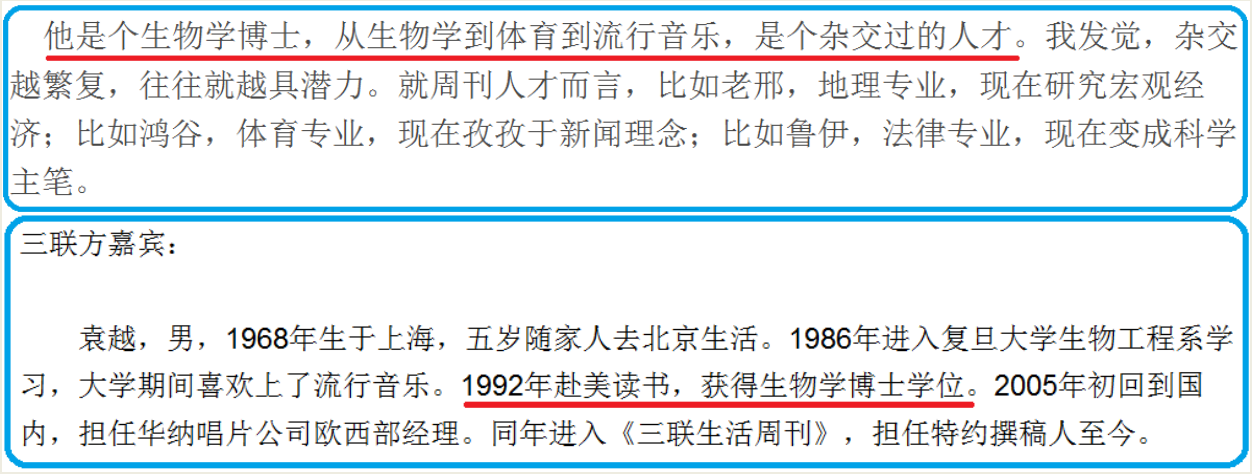
> Yuan Yue, male, born in 1968 in Shanghai, grew up in Beijing. In 1986, he enrolled in the Department of Biotechnology at Fudan University, graduated in 1990, and then assigned to the Institute of Zoology at Chinese Academy of Sciences, engaging in molecular immunology research.
>
> In 1992, Yuan enrolled in the Department of Zoology at Arizona State University, receiving a Master's degree two years later.
>
> From 1994 to 1998, Yuan was a research assistant in the Biotechnology Center at Ohio University.
>
> From 1998 to 2004, Yuan engaged in biopharmaceutical research in a biotech company located in San Diego, California.
>
> Yuan returned to China in 2005, has been serving as a contributing writer to Life Weekly ever since, covering biological sciences and technology, ecology and environmental protection, and tourism and geography. He has traveled many countries and regions, fond especially of Africa and South America. He has been blogging since 2005, known by his pen name of "Local Motor" on the internet.

In his book, *Life Gossips*, published in 2010 by SDX Joint Publishing Company, the owner of Life Weekly, the Author Introduction says basically the same[2].

However, in January 2008, Mr. Zhu Wei, the editor-in-chief of Life Weekly, wrote an essay about Yuan, entitled "*About Local Motor*," in which he wrote:

> "He is a doctor in biology, from biology to sports to popular music, he is a talent who has been hybridized."[3]

Two years later, Mr. Yuan was introduced by his colleagues as an American doctorate in biology, again, in a press conference hosted by SDX Joint Publishing Company [4].



他是个生物学博士，从生物学到体育到流行音乐，是个杂交过的人才。我发觉，杂交越繁复，往往就越具潜力。就周刊人才而言，比如老邢，地理专业，现在研究宏观经济；比如鸿谷，体育专业，现在孜孜于新闻理念；比如鲁伊，法律专业，现在变成科学主笔。

三联方嘉宾：

袁越，男，1968年生于上海，五岁随家人去北京生活。1986年进入复旦大学生物工程系学习，大学期间喜欢上了流行音乐。1992年赴美读书，获得生物学博士学位。2005年初回到国内，担任华纳唱片公司欧西部经理。同年进入《三联生活周刊》，担任特约撰稿人至今。

An American doctor in biology, certified by his boss and employer

Screenshots of the webpages claiming that Yuan Yue has a doctoral degree in biology from the United States (underlined sentences).
Upper: the webpage from the blog of Mr. Zhu Wei, the editor-in-chief of Life Weekly;
Lower: the webpage from one of the employees of Life Weekly, announcing a press conference hosted by the magazine's owner.

Mr. Yuan was famous for his arrogance and pretentiousness, which are the characteristics of importance and accomplishment, – in current China, humbleness equals to incompetence, vice versa - so no one seemed ever doubted Yuan's doctorate credential. However, on Sept. 3, 2010, Mr. Yuan, in response to the criticism against Fang's scifooling by Dr. Liao Junlin (web ID Xun Zheng), proposed to establish a peer-review like alliance of science journalists in China "to boycott and force those science writers who have made serious mistakes but are absolutely unrepentant, such as Xun Zheng, to leave their positions, so that they could no longer harm other people."[5] Of course, by "serious mistakes," Yuan meant the opinions in conflict with those of Fang's.

Dr. Liao Junlin, who works at the University of Iowa, fought back by posting an article on his blog: *The Doctoral Degree of Fang Zhouzi's Loyal Ally Local Motor (Yuan Yuan)*. In the article, Dr. Liao claimed that he could not find Yuan's dissertation in ProQuest database, therefore, his doctorate must be purchased from a diploma mill[6].

Guess what? The Mighty Yuan, who nominated Fang for his courage for standing up for science, has never found his own courage to stand up for himself.

The funny thing is, on Nov. 3, 2012, three days before Nature's announcement of that year's John Maddox Prize, one of Yuan's colleagues, associate editor-in-chief of Life Weekly, Ms. Yan Qi, tried to smooth the scandal over in this way:

> "Yuan Yue is a famous reporter with our Life Weekly. According to his official CV, he is a science man. He graduated from Biotechnology Department at Fudan University, then went to the Institute of Zoology at CAS to conduct immunological research. Two years later, he went to the United States, studying in the Department of Zoology at the University of Arizona, after receiving his Master's degree, he was hired by the Biotechnology Center at the Ohio University as a research assistant, he then went to a biotech firm in California to conduct biopharmaceutical research. His experience is very similar to that of Fang Zhouzi's, and they two are friends with good understanding of each other. When our editor-in-chief Zhu Wei wrote about Yuan Yue, I saw that he said Yuan was a doctorate. However, I have never heard he said he was a doctorate, so how could our editor-in-chief write so? Maybe it was because that our editor-in-chief thought Yuan's capability is too big, he could not express his deep affection towards Yuan without adding a title of doctoral degree to him. However, the article was misunderstood by outsiders, so by formally introducing Yuan's resume today, I make it clear that Yuan Yue has never said he is a doctorate."[7]

The underlying message of the above statement is, Yuan had never clarified the matter to his boss and his colleagues about his doctoral degree before, he simply remained silent on the matter to let other people believe what his boss believed. It remains a mystery as for how Mr. Zhu Wei got the idea that Yuan had a doctoral degree - Ms. Yan's explanation is so ridiculous that it makes everyone associated with Life Weekly look like an idiot.

A Fake Scientist

With or without a doctoral degree, Yuan's resume looks decent for a science reporter. However, instead of being padded, the resume is a shrunk and wrung version of Mr. Yuan's juicy and colorful life.

According to what Mr. Yuan wrote in 2010, after having absentmindedly studied for two and a half years at Arizona State University, he dropped out of his Ph. D. program for the sake of his love of music – That's how he got his Master's degree[8]. Also, for his love of music, Yuan quitted his job of "biopharmaceutical research" around 2000[9], whether that was the end of his "scientific research" career is unknown. Furthermore, before joining Life Weekly, Yuan was a manager with Warner Music[10].

Yuan Yue, the music critic turned science reporter

The fact is, in his memoir[8], Yuan never attempted to hide his indifference to science, or more accurately, his passion for music. As a matter of fact, when he was hired by Life Weekly in 2005, neither he himself nor the editor-in-chief Mr. Zhu seemed to know what his expertise was[11]. However, Mr. Yuan has rapidly become a "famous" science writer/reporter since then, for some mysterious and some obvious reasons.

Ironically, one of the obvious reasons for Mr. Yuan's sudden rise in China is by fabricating his professional experience. Since 2010, Yuan has claimed on multiple occasions that he had conducted research on molecular biology in the U. S. for 15 years. For example, on Sept. 30, 2010, the Green Channel at sohu.com introduced Yuan as "engaged in molecular biology studies in the United States for 15 years."[12] 14 months later, the introduction was repeated when he delivered a lecture to a science communication class[13]. In July 2013, Yuan took part in a TV debate on GMO, and he was introduced as such again[14].

A fake molecular biologist

In July 2013, Yuan Yue was introduced to the audience of Phoenix Satellite TV as a person who had conducted molecular biology research in the United States for 15 years. (The white subtitles in the screenshots read: "The Life Weekly reporter, who engaged in molecular biology research in America for 15 years, Yuan Yue."

Furthermore, right after finishing the recording of the TV debate, Yuan wrote an article to attack and scold his opponents in the debate, as well as the TV station and the producer of the program, by saying:

> "You invited an Indian bum, a sorcerer philosopher, a trader, and a member of pseudo-environmental organization to debate with a botanist from an academy of agricultural sciences, a food safety expert from an agricultural university, and a science journalist who has conducted gene research for many years, giving these anti-GMO people the equal status with the mainstream scientists, and you even dare to say you are neutral? Aren't you ashamed?"[15]

Obviously, Mr. Yuan thinks that his "15 years' research on molecular biology" not only has made him qualified to talk about GMO, but also made him a member of "mainstream scientists."

The fact is, Mr. Yuan went to U. S. in February 1992, returned to China in early 2005, hence he stayed in the U. S. for at most 13 years, how could he conduct molecular biology studies there for 15 years? It is said that Mr. Yuan's proudest achievement in his life time is that he got a perfect mark in math in his College Entrance Examination back in 1986[16], just like Fang Shi-min's proudest achievement so far is that he got one of the highest scores in Chinese language in Fujian Province in the College Entrance Examination in 1985 - How could he miscalculate the number of years he was in the United States?

On the other hand, based on my personal experience, Yuan had to spend at least his first year, maybe more, at Arizona State University in classrooms. Also, according to his own confession, he terminated his professional employment in about 2000 for unknown length[9]. Therefore, the relationship between his 13 years of staying in the U. S. and his molecular biology research experience is even more dubious.

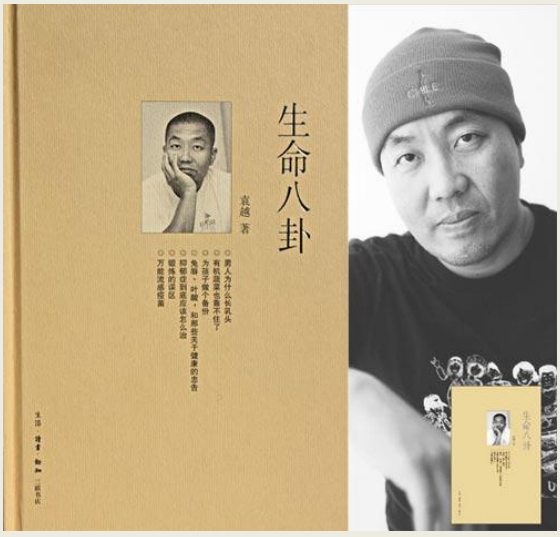
In addition, according to Fang's Law, in biological sciences, if you don't have a doctoral degree, you are not eligible to conduct scientific research, the person who merely has a Master's degree is only eligible for technical work[17]. As a matter of fact, Yuan admitted in 2005 that the American biotech company he worked for was a small firm having only about 30 employees, and his job was mainly doing PCR[18]. And in 2010, after drinking, Yuan finally admitted that he was indeed a technician when he conducted his molecular biology or "biopharmaceutical" research in America[19].

The fact is, Mr. Yuan has been deliberately hiding his employment history in the U. S. from Chinese people, just like Fang Shi-min does, and that's why people don't know exactly which university in Ohio he worked: he repeatedly says it was 俄亥俄大学, which means Ohio University, but in fact it was at The Ohio State University (俄亥俄州立大学) he worked from 1994 to 1998, and his boss was Dr. Gregory J. Cole, then an associate professor in the Medical School's Neurobiotechnology Center at the Ohio State University. Yuan does know that the two universities have two different and distinct Chinese names[20]. It is a mystery why Mr. Yuan plays such a trick. Also, Yuan has never revealed the identity of his employer in California during 1998-2004. Anyway, it seems that Yuan's 15 years' molecular biology research yielded only one publication in the PubMed database[21].

Does anyone believe a person with such experience and record is a "mainstream scientist"?

A Fake Science Writer/Journalist

As mentioned above, Yuan was not hired by Life Weekly as a science writer/reporter in 2005. However, not only is he a famous science journalist in China now, he has also published two books which contain hundreds of his science writings[22]. The question is: how could anyone who had shown no interest in science by abandoning his science education and terminating his professional employment, accomplish this?



Yuan Yue and his book *Life Gossips*

In the Postscript of his *Life Gossips*, published in January 2010, Yuan confessed how he wrote his science articles:

> "Normally, I surf every day the websites of the top international science journals such as Science and Nature, and a few other science popularization websites which I trust, such as New Scientists and Discovery, as well as the science sections in the foreign mainstream comprehensive media, such as New York Times, Time magazine, The Times, The Guardian, etc., to look for the newest reports on life sciences. Once I find interesting ones, I will use search engines such wiki or Google to look for all the relevant materials, and then combining them with my previously accumulated knowledge, write a small self-contained story to introduce the new advance to the readers."[23]

In November 2011, Yuan reiterated what he said above[24].

The fact is, journalist Yuan not only relies upon other journalists for selecting his topics, he relies upon other journalists for information, knowledge, and even writing as well. In short, Yuan's science writing is a combination of translating, paraphrasing, and reorganizing other people's science essays. Or put it in another way: the science journalist Yuan Yue relies completely and absolutely upon the science journalists in the West to report science news to his Chinese readers. Let me demonstrate my point by examining one of Yuan's articles.

On Jan. 3, 2011, Life Weekly published Yuan's *Fecal Therapy*. The first paragraph is:

> "One day in 2008, Dr. Alex Khoruts in the Gastroenterology Division of the Medical School at the University of Minnesota took on a patient with severe symptom. She was an old woman suffering from severe diarrhea. Previous doctors had treated her with many antibiotics but to no avail. In about one half of a year, she had lost about 25 kg. With no strength to walk, she had to site in a wheelchair." (Please see the table below for the original Chinese.)

And here are the first two paragraphs of an article published in the New York Time on July 12, 2010, by multi-awards-winning science writer Carl Zimmer:

> "Dr. Alexander Khoruts had run out of options.
>
> "In 2008, Dr. Khoruts, a gastroenterologist at the University of Minnesota, took on a patient suffering from a vicious gut infection of Clostridium difficile. She was crippled by constant diarrhea, which had left her in a wheelchair wearing diapers. Dr. Khoruts treated her with an assortment of antibiotics, but nothing could stop the bacteria. His patient was wasting away, losing 60 pounds over the course of eight months. 'She was just dwindling down the drain, and she probably would have died,' Dr. Khoruts said."[25]

Look similar? Here are some more:

> Yuan: "Dr. Khoruts tested the stool of the patient, and found the shadow of Clostridium difficile (C-diff). ……Rare patient needs rare treatment. Dr. Khoruts got something from the patient's husband, and transplanted it into the patient's body. One day later, her diarrhea stopped, and it has never returned since. Exactly what was the thing which had such a wonderful effect? The answer is: stool."
>
> Carl Zimmer: "Dr. Khoruts decided his patient needed a transplant. But he didn't give her a piece

> of someone else's intestines, or a stomach, or any other organ. Instead, he gave her some of her husband's bacteria."

The fact is, in Dr. Alexander Khoruts' original paper, which Mr. Carl Zimmer cited, the patient was a 61 years old lady who was referred to Dr. Alexander Khoruts for treatment of *C. difficile* infection. She was treated with antibiotics both before and after seeing Dr. Alexander Khoruts. She wore diaper, she sit in a wheelchair, and she had lost about 27 kg in 8 months. The paper never mentioned the case occurred in 2008[26].

So, Mr. Yuan's descriptions of the patient, "One day in 2008" and "she had lost about 25 kg," indicates that his writing was based on Mr. Zimmer's article, rather than Dr. Khoruts' original paper.

Sure, there are some discrepancies between Mr. Yuan's description and Mr. Zimmer's, such as "Dr. Alex Khoruts" vs, "Dr. Alexander Khoruts;" "about one half of a year" vs."eight months;" "Previous doctors had treated her with many antibiotics" vs. "Dr. Khoruts treated her with an assortment of antibiotics;" and Yuan's distinct "an old woman." Where did they come from?

On December 21, 2010, about two weeks before the publication of Yuan's article in China, British science magazine New Scientist published an article in which another patient of Dr. Khoruts' was described:

> "AS SOON as Alex Khoruts set eyes on the 89-year-old patient, he realised the outlook was grim. Racked with fever and delirium, the woman was convinced she was living with her long-dead parents. A sky-high white blood cell count showed her body was battling to stave off a possibly fatal infection.
>
> "A colonoscopy quickly laid bare the problem. Parts of the woman's large intestine had become severely septic and were so tightly constricted the probe could barely pass through it. For Khoruts, a gastroenterologist at the University of Minnesota Medical School in Minneapolis, the next step was clear. He called the woman's son – not as you might think to allow the pair a few last moments together, but to get hold of a sample of the man's faeces."[27]

Apparently, Mr. Yuan thought the two women were the same patient, so he combined the two descriptions into one. Of course, it is also possible that he intentionally mixed the two descriptions to create a unique patient.

There are more evidences for Mr. Yuan's stealing from Anil Ananthaswamy. For example, Mr. Ananthaswamy wrote:

> "It was not the first success story, either. Surgeons at the University of Colorado Medical School in Denver performed the first faecal transplants in 1958, on four patients whose infected colons and incessant diarrhoea had failed to respond to conventional treatment. They all recovered within 48 hours."

And Mr. Yuan wrote:

> "Dr. Khoruts was not the first one to get the idea. The first people who tried the fecal transplants were a few physicians at the University of Colorado Medical School. In 1958, their hospital received four patients suffering from intestinal infections. After the treatment with antibiotics failed, [the doctors] decided to try fecal transplants, all four patients recovered within 48 hours."

(Paragraph VIII)

Someone might say, hey, they both stated the same fact, so the similarities are inevitable. Then, look at this:

> Ananthaswamy: "On any given day in 2008, US hospitals contained more than 7000 in-patients with C. difficile infections, and there were 300 deaths in which the bug was implicated, according to the Association for Professionals in Infection Control and Epidemiology."
>
> Yuan: "According to the statistics, on average, 7000 patients were hospitalized each day in the U. S. in 2008, because of C-diff infections, and as many as 15,000 people died of the disease each year, most of them were weakened older people."(Paragraph III)

The fact is, according to Healthcare Cost and Utilization Project [28], in 2008, only 349,000 patients, less than a thousand per day, were hospitalized in the United States due to C. difficile infections. Obviously, Yuan misunderstood the number in Ananthaswamy's article which means the product of patient number and the days they stayed in hospitals.

Then, where did Mr. Yuan get his number of mortality?

On December 3, 2010, exactly one month before the publication of Yuan's article, Associated Press released an article: *Last-ditch method at fighting intestinal superbug*, in which it says:

> "C-diff, formally named Clostridium difficile, has become a menace in the nation's hospitals, and can spread outside of them, too. Some patients suffer just mild diarrhea, but others, especially older adults weakened by previous illness, can develop a more severe condition called colitis. There aren't precise counts but some government estimates suggest C-diff may be responsible for as many as 15,000 deaths a year."[29]

The fact is, according to the National Vital Statistics Reports published on Dec. 9, 2010, 24 days before the publication of Yuan's article, the "precise counts" of C. difficile-induced deaths in the United States were 6,372 in 2007, and 7,483 in 2008[30].

In summary, Mr. Yuan's *Fecal Therapy* was based entirely on the three articles published by New York Times, New Scientist, and AP, respectively, plus a little his own "accumulated knowledge," which, of course, is laughable. Let's take a look at how Mr. Yuan copied the AP article. Yuan wrote:

> "C-diff is resistant to most antibiotics, only vancomycin and a few other potent antibiotics are able to control it. Vancomycin is very expensive, one course of treatment costs more than $2,500."(Paragraph II)

AP report:

> "Those worst-case patients are put on increasingly strong doses of the powerful antibiotic vancomycin for weeks, even months, at a time, treatments that Brandt says can cost $2,500 or more with each try."

The fact is, there are so many regimens for treating C. diff infection with vancomycin that the amount of the antibiotics required for each course of treatment varies significantly[31]. According to a study, "The cost of a 10-day treatment course with vancomycin pulvules (Vancocin) is $1161."[32]

Yuan's article:

> "According to the statistics, from 1958 to now, a total of 170 cases of fecal transplantations can be found in the medical literatures around the world, one-third of them were conducted in 2010, thus showing the therapy has received wide attention in recent years." (Paragraph IX)

And the AP report says:

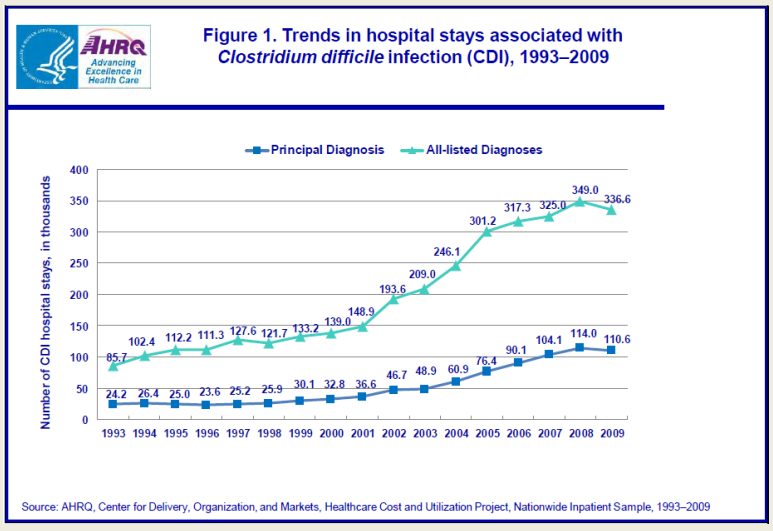
> "Fecal transplants aren't new - the first was reported in 1958, and they've been performed occasionally ever since. But of 170 cases described in medical journals since then, about a third were published this year, suggesting increased interest as the C-diff problem grows, says Montefiore's Brandt."

The fact is, as early as August 2009, a paper showed that 159 fecal transplantation cases had been reported[31]. Another paper published in 2011 showed that there were a total of 317 such cases, and among them, only 28 cases were published in 2010[33]. As a matter of fact, the New Scientist article says that an Australian clinic alone had performed more than 1,500 fecal transplants[27]. It seems that Mr. Yuan picks his data randomly.

Now, let's examine Mr. Yuan's own "accumulated knowledge."

According to Yuan, C. diff "emerged in the last two years, and there were two reasons it was named 'difficile,' one was its difficulty to be detected, the other was its difficulty to be treated." (Paragraph II)

The fact is, C. diff was recognized as a major cause of diarrhea for the first time in 1978[34], and since 2000, the incidence of its infections in the United States has been on the rise[28, 35]. (See figure below).



Trend in hospital stays associated with Clostridium difficile infection[28]

Another fact is, the bacterium was first named as Bacillus difficilis "to reflect the difficulties they encountered in its isolation and culture."[35]

The funniest "knowledge accumulation" of Yuan's is this one: according to Yuan, since 2008, Dr. Khoruts has performed 21 fecal transplants, and he claimed that he succeeded 19 times (Paragraph

IX). Where did Mr. Yuan get his numbers? Here are his sources: in Mr. Zimmer's article, there is the following sentence:

> "Dr. Khoruts and his colleagues have carried out 15 more fecal transplants, 13 of which cured their patients."

And in the AP article, there is the following sentence:

> "'They're caught in this cycle of treatment and re-treatment,' says Minnesota's Khoruts, who has performed 21 fecal transplants since discovering how normal bacteria took over in his first patient in 2008."

And this must have been Mr. Yuan's reasoning: "Since Dr. Khoruts failed twice before Mr. Zimmer's article, and by December 2010 he had performed 21 transplantations, then he succeeded 19 times out of 21 tries." Obviously, Mr. Yuan assumed that the 6 more transplants Dr. Khoruts performed after Mr. Zimmer's article were all successful[36]. Mr. Yuan is indeed a math expert!

Mr. Yuan's ignorance in science is also revealed in the following sentence:

> "On Dec. 23, 2010, Science Express magazine of the Science magazine family published a paper, claiming that normal intestinal bacteria could induce the production of regulatory T cells in colon……" (Paragraph XI)

Obviously, this famous science journalist in China didn't know, maybe still doesn't know, that Science Express is not a magazine, but a section of Science magazine's website: "Science Express provides electronic publication of selected Science papers in advance of print."

4. Conclusions

By any measurements, Mr. Yuan is hardly qualified for a science journalist. Although we don't have hard evidence to accuse Mr. Yuan of faking a doctorate credential, the circumstantial evidence strongly suggests that was the case. On the other hand, we do have direct evidence showing that Mr. Yuan has faked his research experience in the U. S., and based on that faked experience, he pretended to be a "mainstream scientist." Does Dr. Xiao have any of these misconducts? Of course not. So why did Fang bust Xiao instead of Yuan? The answer is pretty self-evident, but I'll talk about it more in the next part of this letter.

Mr. Yuan's science writing, like Fang's, is based almost exclusively on someone else's science writings, i. e. he writes his science popularization articles by stealing what already has been popularized – he never reads the original research papers. The reason for his stealing is simple: he doesn't know what topic to write on, he doesn't know which contents are more important to his readers, he doesn't know the background and the impact of the discoveries, he doesn't have the capability of understanding the original research papers, and he doesn't have the accesses to other scientists whom he is supposed to interview with. Therefore, stealing is the only option for him to be a science writer. In a sense, the "science writers" attached to Fang - all of them - are parasites living on the science writers in the Western World. That's why they aggregate together like rodents in cold winter. That's why they yearn for the recognition by the Western media like hungry dogs meekly looking at their masters. Deep in their hearts, they are constantly haunted by the feeling of loneliness, affrightment, and inferiority. Only doing what they do, they can overcome the apprehension and complex.

大便疗法

人身上生活着很多细菌，它们的作用不可小视。

◎袁越

2008年的某一天，美国明尼苏达大学医学院消化科医生亚里克斯·克鲁茨（Alex Khoruts）接待了一位重症病人。这是一位患有严重腹泻的老年妇女，前任医生使用了多种抗生素都无济于事，半年多来她的体重下降了50多斤，连走路的力气都没有了，只能坐在轮椅上。

克鲁茨医生化验了这位病人的大便，发现了“艰难梭状芽胞杆菌”（*Clostridium difficile*，简称C-diff）的身影。这是一种近两年刚刚冒头的肠道病菌，之所以被命名为“艰难”，一是因为它很难被检测出来，二是因为它很难对付。C-diff对绝大部分抗生素都有抗性，只有万古霉素（Vancomycin）等极少数药效极强的抗生素才能对付得了它。万古霉素很贵，一个疗程需要2500美元以上，而且还不能保证绝对有效。尤其对于那些自身免疫力很低的老年患者效果更差，一旦停药很容易反复。

据统计，2008年时仅在美国平均每天就有超过7000名患者因为受到C-diff的感染而住院，每年死于此病的人数很可能高达1.5万人，其中绝大部分是体质较差的老年人。

极端的病例需要极端手段。克鲁茨医生从病人的丈夫身上取来某样东西，把它移植到病人的身体里。一天之后，腹泻停止了，此后再也没复发。

究竟是什么东西产生了如此奇效呢？答案是：大便。

虽然听起来有点匪夷所思，但如果从技术的角度看，这恐怕是所有移植手术里最简单的一种了，它不需要配型，不会流血，操作简单，移植材料由捐献者自取，医生所要做的只是用生理盐水将其稀释一下，再用滤纸过滤掉体积大的残渣，把过滤液用导管注入病人的大肠中去即可。换句话说，这就是一次简单的灌肠而已，只是灌肠剂用的是健康人的大便过滤液。

从上面的描述中可以猜到，克鲁茨医生真正想移植的不是大便，而是大便中的细菌，希望借助它们的力量来对付C-diff。健康人肠道中最常见的细菌名叫“类杆菌”（Bacteroides），化验表明，那名病人大肠内根本见不到类杆菌，代之以各种各样奇形怪状的致病细菌。移植了丈夫的大便后，病人大肠内的类杆菌重新取得了统治地位，C-diff被抑制住了。

克鲁茨医生并不是第一个想出这主意的。最先尝试移植大便的是美国科罗拉多大学医学院的几名医生，那是在1958年，该医院收治了4名肠道感染病人，在抗生素医治无效后决定试验大便移植，结果所有4名病人全都在48小时内恢复了健康。

大概是因为听上去有些“恶心”，此法一直没能普及。但2008年C-diff大爆发，一些医生这才重新想到了这个方法。据统计，自1958年开始直到现在，全世界的医疗文献中一共可以检索出170次大便移植手术，其中有1/3的病例发生在2010年，可见此法近年来引起了医学界的广泛关注。从疗效上看，大便移植的成功率很高，比如克鲁茨医生自2008年首次尝试成功后又先后尝试过21次，自报成功了19次。

不过，来自达拉斯的一名消化科医生劳伦斯·席勒（Lawrence Schiller）警告说，这个方法仍然没有被严格的临床试验所验证，尚不能代替传统的抗生素疗法。好在已经有人开始了临床试验，荷兰莱顿大学（Leiden University）医学研究中心的艾德·库伊吉帕（Ed Kuijper）博士及其领导的一个研究小组正在进行一项临床试验，看看大便移植是否比传统的抗生素疗法更加有效。

不管结果如何，这件事提醒我们，细菌很可能在人体的生理过程中扮演了一个很重要的角色。众所周知，人体内含有的细菌总数是人体细胞总数的10倍，它们大都生活于消化道、呼吸道，以及皮肤表面等地方，直接或者间接地参与了很多人体生理过程，尤其是消化和免疫。2010年12月23日发表在《科学》旗下的《科学快讯》（*Science Express*）杂志中的一篇文章称，正常的肠道菌群能够诱导结肠生产调节T细胞（一种免疫细胞），如果缺乏这种调节T细胞，免疫系统会对自身组织发动攻击，导致自免疫疾病。

人在刚出生时是完全无菌的，但此后便迅速地被环境中的细菌“接种”，所以说人体内的共生菌群都是后天得来的，取决于人生活的环境以及接触到的事物。正常分娩情况下，最先接触到的是母亲产道内的细菌。如果是剖宫产的话，则最先接触到的细菌主要来自大人们的皮肤表面。事实上，一项研究认为近年来发达国家哮喘等自免疫疾病的增加与剖宫产比例太高导致的肺部菌群异常有某种关联。

共生细菌是近来医学界的一个热门领域。2007年，美国国立健康研究所（NIH）出资1.5亿美元启动了一个名为“人类微生物组项目”（Human Microbiome Project）的研究计划，对人体内最常见的细菌基因组进行测序，以便更好地研究细菌与人体健康的关系。

从目前的研究结果看，人与人之间的共生细菌群落差异极大。生活在每个人手上的细菌种类平均只有13%是相同的，一个人左手上生活的细菌平均也只有17%和右手相同！由此看来，要想搞清这些细菌的作用，科学家们还有很长的路要走。■

A poo article about poo

The page image of Yuan's *Fecal Therapy* as it published in Life Weekly. The portions highlighted in yellow are those stolen from other people's science reports; the sentences with red underlines are those with factual errors.

A Complete Comparison between Mr. Yuan's *Fecal Therapy* and His Sources

Mr. Yuan's article, *Fecal Therapy*, was retrieved from this webpage and translated into English by me in its entirety. The texts are arranged in paragraphs in its original order. The sources of Mr. Yuan's information, knowledge, wording, and style are listed in the right column.
NYT: The New York Times article by Mr. Carl Zimmer[25];
NS: The New Scientist article by Mr. Anil Ananthaswamy[27];
AP: The Associated Press article by an anonymous author[29].

Yuan's article			The sources of Yuan's article
Para.	**Chinese**	**English translation**	
I	2008 年的某一天，美国明尼苏达大学医学院消化科医生亚里克斯·克鲁茨（Alex Khoruts）接待了一位重症病人。这是一位患有严重腹泻的老年妇女，前任医生使用了多种抗生素都无济于事，半年多来她的体重下降了 50 多斤，连走路的力气都没有了，只能坐在轮椅上。	One day in 2008, Dr. Alex Khoruts in the Gastroenterology Division of the Medical School at the University of Minnesota took on a patient with severe symptom. She was an old woman suffering from severe diarrhea. Previous doctors had treated her with many antibiotics but to no avail. In about one half of a year, she had lost about 25 kg. With no strength to walk, she had to site in a wheelchair.	Dr. Alexander Khoruts had run out of options. In 2008, Dr. Khoruts, a gastroenterologist at the University of Minnesota, took on a patient suffering from a vicious gut infection of Clostridium difficile. She was crippled by constant diarrhea, which had left her in a wheelchair wearing diapers. Dr. Khoruts treated her with an assortment of antibiotics, but nothing could stop the bacteria. His patient was wasting away, losing 60 pounds over the course of eight months. (NYT) AS SOON as Alex Khoruts set eyes on the 89-year-old patient, he realised the outlook was grim. Racked with fever and delirium, the woman was convinced she was living with her long-dead parents. A sky-high white blood cell count showed her body was battling to stave off a possibly fatal infection. (NS)
II	克鲁茨医生化验了这位病人的大便，发现了"艰难梭状芽胞杆菌"（Clostridium difficile，简称 C-diff）的身影。这是一种近两年刚刚冒头的肠道病菌，之所以被命名为"艰难"，一是因为它很难被检测出来，二是因为它很难对付。C-diff 对绝大部分抗生素都有抗性，只有万古霉素（Vancomycin）等极少数药效极强的抗生素才能对付得了它。万古霉素很贵，一个疗程需要 2500 美元以上，而且还不能保证绝对有效。尤其对于那些自身免疫力很低的老年患者效果更差，一旦停药很容易反复。	Dr. Khoruts tested the patient's stool, and found the shadow of Clostridium difficile (C-diff). This is an intestinal bacterium emerged in the last two years, and there were two reasons it was named "difficile," one was its difficulty to be detected, the other was its difficulty to be treated. C-diff is resistant to most antibiotics, only vancomycin and a few other potent antibiotics are able to control it. Vancomycin is very expensive, one course of treatment costs more than $2,500. However, its effectiveness is not guaranteed, especially to the older patients with low immunity. Recurrence often appears once the drugs are stopped.	Those worst-case patients are put on increasingly strong doses of the powerful antibiotic vancomycin for weeks, even months, at a time, treatments that Brandt says can cost $2,500 or more with each try. (AP)
III	据统计，2008 年时仅在美国平均每天就有超过 7000 名患者因为受到 C-diff 的感染而住院，每年死于此病的人数很可能高达 1.5 万人，其中绝大部分是体质较差的老年人。	According to the statistics, on average, 7000 patients were hospitalized each day in the U. S. in 2008, because of C-diff infections, and as many as 15,000 people died of the disease each year, most of them were weakened older people.	On any given day in 2008, US hospitals contained more than 7000 in-patients with C. difficile infections, ⋯. (NS) There aren't precise counts but some government estimates suggest C-diff may be responsible for as many as 15,000 deaths a year. (AP)
IV	极端的病例需要极端手段。克鲁茨医生	Rare patient needs rare treatment. Dr. Khoruts	Dr. Khoruts mixed a small sample of her husband's stool with saline

	从病人的丈夫身上取来某样东西，把它移植到病人的身体里。一天之后，腹泻停止了，此后再也没复发。	took something from the patient's husband, and transplanted it into the patient's body. One day later, her diarrhea stopped, and it has never returned since.	solution and delivered it into her colon. Writing in the Journal of Clinical Gastroenterology last month, Dr. Khoruts and his colleagues reported that her diarrhea vanished in a day. Her Clostridium difficile infection disappeared as well and has not returned since. (NYT)
V	究竟是什么东西产生了如此奇效呢？答案是：大便。	Exactly what was the thing which had such a wonderful effect? The answer is: stool.	Dr. Khoruts decided his patient needed a transplant. But he didn't give her a piece of someone else's intestines, or a stomach, or any other organ. Instead, he gave her some of her husband's bacteria. (NYT)
VI	虽然听起来有点匪夷所思，但如果从技术的角度看，这恐怕是所有移植手术里最简单的一种了，它不需要配型，不会流血，操作简单，移植材料由捐献者自取，医生所要做的只是用生理盐水将其稀释一下，再用滤纸过滤掉体积大的残渣，把过滤液用导管注入病人的大肠中去即可。换句话说，这就是一次简单的灌肠而已，只是灌肠剂用的是健康人的大便过滤液。	Although it sounds unbelievable, technically it might be the simplest surgery of all. It doesn't need matching, it won't lead to bleeding, it is simple to operate, and the transplant material is collected by the donor him/herself. What doctor does is diluting it with saline solution, removing large debris with filter paper, then transplanting the filtrate into patient's large intestine. In other words, it is nothing but an enema with healthy people's fecal filtrate.	Dr. Khoruts mixed a small sample of her husband's stool with saline solution and delivered it into her colon. (NYT) The procedure itself is straightforward. A donor's faeces are mixed with saline and filtered to remove large particles. How this solution, typically less than a litre, is delivered to the recipient's colon differs from practitioner to practitioner. Some prefer a tube inserted through the nose into the stomach. Khoruts favours either a colonoscope or an enema. (NS)
VII	从上面的描述中可以猜到，克鲁茨医生真正想移植的不是大便，而是大便中的细菌，希望借助它们的力量来对付 C-diff。健康人肠道中最常见的细菌名叫“类杆菌”（Bacteroides），化验表明，那名病人大肠内根本见不到类杆菌，代之以各种各样奇形怪状的致病细菌。移植了丈夫的大便后，病人大肠内的类杆菌重新取得了统治地位，C-diff 被抑制住了。	It can be guessed from the above description that what Dr. Khoruts really wanted to transplant was not stool, rather, it was the bacteria in the stool, hoping to use them to counter C-diff. The most common bacteria in healthy people are Bacteroides. The test results showed that these bacteria were not present in the patient's intestine, rather, many strange formed pathogenic bacteria were present. After being transplanted with her husband's stool, the patient's large intestine was re-dominated by Bacteroides, and the C-diff was suppressed.	Before the transplant, they found, her gut flora was in a desperate state. "The normal bacteria just didn't exist in her," said Dr. Khoruts. "She was colonized by all sorts of misfits." Two weeks after the transplant, the scientists analyzed the microbes again. Her husband's microbes had taken over. (NYT) The scientists then inoculated the mice with a single species of gut bacteria, known as Bacteroides fragilis. Once the bacteria began to breed in the guts of the mice, they produced a signal that was taken up by certain immune cells. In response to the signal, the cells developed the ability to produce IL-10. (NYT) Both he and Khoruts have published studies showing how faecal transplants restore populations of Bacteroides, the genus of bacteria that dominates a healthy colon. (NS)
VIII	克鲁茨医生并不是第一个想出这主意的。最先尝试移植大便的是美国科罗拉多大学医学院的几名医生，那是在 1958 年，该医院收治了 4 名肠道感染病人，在抗生素医治无效后决定试验大便移植，结果所有 4 名病人全都在 48 小时内恢复了健康。	Dr. Khoruts was not the first one to get the idea. The first people who tried the fecal transplants were a few physicians at the University of Colorado Medical School. In 1958, their hospital received four patients suffering from intestinal infections. After the treatments with antibiotics failed, [the doctors] decided to try fecal transplants. All four patients recovered within 48 hours.	It was not the first success story, either. Surgeons at the University of Colorado Medical School in Denver performed the first faecal transplants in 1958, on four patients whose infected colons and incessant diarrhoea had failed to respond to conventional treatment. They all recovered within 48 hours. (NS)
IX	大概是因为听上去有些“恶心”，此法一直没能普及。但 2008 年 C-diff 大爆发，	Probably because it sounds yuck, the method had not been widely used since that time.	Fecal transplants aren't new — the first was reported in 1958, and they've been performed occasionally ever since. But of 170 cases

	一些医生这才重新想到了这个方法。据统计，自 1958 年开始直到现在，全世界的医疗文献中一共可以检索出 170 次大便移植手术，其中有 1/3 的病例发生在 2010 年，可见此法近年来引起了医学界的广泛关注。从疗效上看，大便移植的成功率很高，比如克鲁茨医生自 2008 年首次尝试成功后又先后尝试过 21 次，自报成功了 19 次。	However, in 2008, C-diff broke out, some doctors remembered the method. According to the statistics, from 1958 to now, a total of 170 cases of fecal transplantations can be found in the medical literatures around the world, one-third of them were conducted in 2010, thus showing the therapy has received increased interest in recent years. Judging by its effectiveness, the success rate of fecal therapy is pretty high. For example, since 2008, Dr. Khoruts has performed 21 fecal transplants, and he claimed that he succeeded 19 times.	described in medical journals since then, about a third were published this year, suggesting increased interest as the C-diff problem grows, says Montefiore's Brandt. (AP) Dr. Khoruts and his colleagues have carried out 15 more fecal transplants, 13 of which cured their patients. (NYT) “They're caught in this cycle of treatment and re-treatment,” says Minnesota's Khoruts, who has performed 21 fecal transplants since discovering how normal bacteria took over in his first patient in 2008. (AP)
X	不过，来自达拉斯的一名消化科医生劳伦斯·席勒（Lawrence Schiller）警告说，这个方法仍然没有被严格的临床试验所验证，尚不能代替传统的抗生素疗法。好在已经有人开始了临床试验，荷兰莱顿大学（Leiden University）医学研究中心的艾德·库伊吉帕（Ed Kuijper）博士及其领导的一个研究小组正在进行一项临床试验，看看大便移植是否比传统的抗生素疗法更加有效。	However, Dr. Lawrence Schiller, a gastroenterologist based in Dallas, warned that the therapy has not been proven by rigorous clinical trials, cannot replace the conventional antibiotics treatment. The good news is that someone had already started clinical trials. Dr. Ed Kuijper of Medical Center at Leiden University in the Netherlands, and his team, are conducting a clinical trial to see if fecal therapy is more effective than the traditional antibiotic therapies.	"There's very good reason to think this fecal transplantation, or bacteriotherapy, might work, but it needs to be proven before everybody starts to do it," stresses Dr. Lawrence Schiller, a gastroenterologist with the Baylor Health Care system in Dallas. (AP) Others remain to be convinced. Peter Katelaris, a gastroenterologist at the University of Sydney, Australia, says that while there are indications that faecal transplants can be of benefit in treating tricky C. difficile infections, the procedure has yet to undergo rigorous, large-scale trials - and until it does, it remains of unproven efficacy and uncertain safety. "The concept is appealing," he says, "but we mustn't get ahead of the scientific evidence base." That base could soon be significantly strengthened. A team led by Ed Kuijper of the Leiden University Medical Center in the Netherlands is now embarking on double-blind trials to compare the effectiveness of faecal transplants with antibiotic-led therapies. (NS)
XI	不管结果如何，这件事提醒我们，细菌很可能在人体的生理过程中扮演了一个很重要的角色。众所周知，人体内含有的细菌总数是人体细胞总数的 10 倍，它们大都生活于消化道、呼吸道，以及皮肤表面等地方，直接或者间接地参与了很多人体生理过程，尤其是消化和免疫。2010 年 12 月 23 日发表在《科学》旗下的《科学快讯》（Science Express）杂志中的一篇文章称，正常的肠道菌群能够诱导结肠生产调节 T 细胞（一种免疫细胞），如果缺乏这种调节 T 细胞，免疫系统会对自身组织发动攻击，导致自免疫疾病。	No matter what the outcomes will be, the story reminds us that bacteria probably play a very important role in the physiological processes in human body. It is well known that the total number of bacteria in human body is 10 times of the number of human cells, most of them live in gastrointestinal tract, respiratory tract, and skin surfaces, participating in, directly or indirectly, many physiological processes in human body, especially in digestion and immunity. On Dec. 23, 2010, Science Express magazine of the Science magazine family published a paper, claiming that normal intestinal bacteria could induce the production of regulatory T cells (a kind of immune cells) in colon. If such cells are in short supply, the	In addition to helping us digest, the microbiome helps us in many other ways. The microbes in our nose, for example, make antibiotics that can kill the dangerous pathogens we sniff. Our bodies wait for signals from microbes in order to fully develop. When scientists rear mice without any germ in their bodies, the mice end up with stunted intestines. In order to co-exist with our microbiome, our immune system has to be able to tolerate thousands of harmless species, while attacking pathogens. Scientists are finding that the microbiome itself guides the immune system to the proper balance. (NYT) Scientists are regularly blown away by the complexity, power, and sheer number of microbes that live in our bodies. “We have over 10 times more microbes than human cells in our bodies,” said George Weinstock of Washington University in St. Louis. But the microbiome, as it’s known, remains mostly a mystery. (NYT)

		immune system will launch attacks on its own tissues, resulting in autoimmune diseases.	
XII	人在刚出生时是完全无菌的，但此后便迅速地被环境中的细菌“接种”，所以说人体内的共生菌群都是后天得来的，取决于人生活的环境以及接触到的事物。正常分娩情况下，最先接触到的是母亲产道内的细菌。如果是剖宫产的话，则最先接触到的细菌主要来自大人们的皮肤表面。事实上，一项研究认为近年来发达国家哮喘等自免疫疾病的增加与剖宫产比例太高导致的肺部菌群异常有某种关联。	People are completely germ-free when they are born, but after that they are “inoculated” rapidly by the bacteria in the environment. Therefore, the microbiomes in human bodies are acquired, [their compositions] are determined by the environments in which they live and the things they touch. In normal childbirth, [a baby] first contacts the bacteria in mother’s birth canal. If a baby is born by Caesarean section, the first bacteria contacted are those found on the skin of adults. In fact, a research has linked the increase in the autoimmune diseases such as asthma in the developed countries to the abnormal microbiomes in lungs resulted from the high percentage of Caesarean sections.	“You have a sterile baby coming from a germ-free environment into the world,” said Maria Dominguez-Bello, a microbiologist at the University of Puerto Rico. Recently, she and her colleagues studied how sterile babies get colonized in a hospital in the Venezuelan city of Puerto Ayacucho. They took samples from the bodies of newborns within minutes of birth. They found that babies born vaginally were coated with microbes from their mothers’ birth canals. But babies born by Caesarean section were covered in microbes typically found on the skin of adults. (NYT) The Imperial College team that discovered microbes in the lungs, for example, also discovered that people with asthma have a different collection of microbes than healthy people.…… Caesarean sections have also been linked to an increase in asthma and allergies in children. (NYT)
XIII	共生细菌是近来医学界的一个热门领域。2007 年，美国国立健康研究所（NIH）出资 1.5 亿美元启动了一个名为“人类微生物组项目”（Human Microbiome Project）的研究计划，对人体内最常见的细菌基因组进行测序，以便更好地研究细菌与人体健康的关系。	Microbiome is a hot area in medical community in recent years. In 2007, a $150 million research project sponsored by National Institutes of Health (NIH), known as the Human Microbiome Project, was started to sequence the genomes of common bacteria in human bodies, in order to better study the relationship between bacteria and human health.	A number of teams are working together to tackle this problem in a systematic way. Dr. Weinstock is part of the biggest of these initiatives, known as the Human Microbiome Project. The $150 million initiative was started in 2007 by the National Institutes of Health. The project team is gathering samples from 18 different sites on the bodies of 300 volunteers. (NYT)
XIV	从目前的研究结果看，人与人之间的共生细菌群落差异极大。生活在每个人手上的细菌种类平均只有 13%是相同的，一个人左手上生活的细菌平均也只有 17%和右手相同！由此看来，要想搞清这些细菌的作用，科学家们还有很长的路要走。	The current results show that the microbiomes differ significantly among people. Only 13 percent of the species on two people’s hands are the same. Only 17 percent of the species living on one person’s left hand also live on the right one. Therefore, to find the functions of these bacteria, scientists have a long way to go.	And the species found in one person’s body may be missing from another’s.……Only 13 percent of the species on two people’s hands are the same. Only 17 percent of the species living on one person’s left hand also live on the right one. This variation means that the total number of genes in the human microbiome must be colossal. This variation means that the total number of genes in the human microbiome must be colossal. (NYT)

Notes

[1] Original Chinese:
“袁越，男，1968 年生于上海，成长在北京。1986 年进入复旦大学生物工程系学习，1990 年毕业后被分配至中国科学院动物研究所从事分子免疫学研究。
“1992 年去美国亚利桑那州立大学动物学系留学，2 年后获得生物学硕士学位。
“1994 年至 1998 年在美国俄亥俄大学生物工程中心担任研究助理。
“1998 年至 2004 年在加利福尼亚州圣地亚哥市的一间生物技术公司从事生物制药研究。
“2005 年回国后在《三联生活周刊》担任特邀撰稿人至今，负责报道生物科技、生态环保以及旅游与地理栏目；去过多个国家和地区旅游，尤其喜欢非洲和南美；2005 年开始写博客，用‘土摩托’这个名字行走于网络江湖。 ” (See: baike.com:《袁越[作家]》， accessed on August 3, 2013.)

[2] **Original Chinese: “作者简历：**1968 年出生于上海，在北京人大附中念的中学。1986 年获得全国中学生物理竞赛二等奖并因此被保送至复旦大学生物工程系学习。1990 年毕业后被分配至中国科学院动物研究所从事分子免疫学研究。1992 年初去美国亚利桑那州立大学动物学系留学，2 年后获得生物学硕士学位。1994 年至 1998 年在美国俄亥俄大学生物工程中心担任研究助理。1998 年至 2004 年在加利福尼亚州圣地亚哥市的一间生物技术公司从事生物制药研究。2005 年 8 月加盟《三联生活周刊》，担任特约撰稿人至今。” (See: Yuan Yue. *Life Gossips*. SDX Joint Publishing Company, 2010. 袁越：《生命八卦》，三联书店 2010 年版).

[3] Zhu’s original Chinese: “他是个生物学博士，从生物学到体育到流行音乐，是个杂交过的人才。”(See: Zhu Wei. *About Local Motor*. Zhu Wei’s Blog at sina.com, Jan. 4, 2008. 朱伟：《土摩托其人》，朱伟的新浪博客，2008 年 1 月 4 日).

[4] The original Chinese: “三联方嘉宾：袁越，男，1968 年生于上海，五岁随家人去北京生活。1986 年进入复旦大学生物工程系学习，大学期间喜欢上了流行音乐。1992 年赴美读书，获得生物学博士学位。2005 年初回到国内，担任华纳唱片公司欧西部经理。同年进入《三联生活周刊》，担任特约撰稿人至今。” (See the announcement of the press conference, posted at 2010-01-24 08:07:24:《我们在此相遇：土摩托袁越》).

[5] Yuan’s original Chinese: “昨天和@张志安聊天时想到，中国的科学记者应该成立一个联盟，集体监督，类似于‘同行评议’。凡是犯了严重的错误，又死不改悔的科学作者，比如@寻正这样的，我们应该集体抵制，逼其离开这个岗位，不再继续害人。” (See Yuan’s microblog at sina.com: 2010-9-3 09:45.)

[6] Dr. Liao’s original Chinese: “方舟子追查唐骏，说在美国硕博士论文文库中一搜，唐骏就现形了。寻正有样学样，一搜，这个袁博士还真玄吊吊的，美国 ProQuest 论文文库还真查不到袁越的博士论文！那么袁越又是从哪个野鸡学校买得的博士文凭？自己分明是个硕士，凭什么在很多的场合以博士自居？一个不务正业，在美国花两样时间混了一个硕士学位，就因此对医学问题的理解比医生更专业？” (See Dr. Liao’s Blog at sciencenet.cn, posted at 2010-9-5 00:15. 寻正：《方舟子铁杆盟友土摩托（袁越）的博士学位》).

[7] Yan’s original Chinese: “袁越是我们《三联生活周刊》的一位著名记者。按照正式的履历来说，袁越是理科男。他是复旦大学生物工程系毕业，到中科院动物所做免疫学研究。研究了两年去 美国了，在亚利桑那大学的动物系读书，拿到硕士学位后去俄亥俄州大学生物工程中心做研究助理，然后在加州一家生物技术公司研究生物制药。他这个履历和方舟 子有点像，他们俩也是相互很能理解的朋友。我看我们主编朱伟写到袁越的时候，说他是博士，可我从来没听他说过自己是博士，我们主编怎么给写成博士了呢？可 能我们主编自己觉得袁越的本事太大了，不给他加一个博士的头衔，都觉得没法表达对他的厚爱。可能这些文字在外面有误传，我今天正式介绍袁越简历的时候也说 一下，袁越从来没有说过自己是博士。”(See the introduction by Ms. Yan Qi to Yuan’s talk: *Travel with Missions*. Posted on Yuan’s Blog on Nov. 11, 2012. 《带着任务去旅行—-三联书店讲座实录》).

[8] Yuan's original Chinese: "于是，在心不在焉地学了两年半生物学之后，我做出了一个令同学们都十分惊讶的决定：放弃了博士课程，拿了个硕士，便找了份工作离开了大学。我并不是对生物厌倦了，而是对音乐更感兴趣了。" (See: Local Motor. *Fragments of Memory about Music*. People's Literature, December 2010. 土摩托：《关于音乐的记忆碎片》，《人民文学》2010 年 12 期. Also see: 《关于音乐的记忆碎片（九）》).

[9] Yuan's original Chinese: "后来的故事就没多少好讲的了，因为我把大部分时间都花在了书上。再后来我决定辞职，把全部精力投入写作，靠积蓄生活。为此我不得不把自己的生活水平降至最低点，以节省开支。幸好这时候 Nepster 出现了，我得以只用很少的钱继续保持对流行音乐的关注。" (See: Local Motor. *Fragments of Memory about Music*. People's Literature, December 2010. 土摩托：《关于音乐的记忆碎片》，《人民文学》2010 年 12 期. Also see: 《关于音乐的记忆碎片（十五）》).

[10] Yuan's original Chinese: "回国后我在华纳唱片公司混了 3 个月，立刻意识到音乐产业已经没有任何指望了，于是就去了三联当记者，一直做到今天。" (See: Yuan's Blog, March 6, 2012: 《十年前的网事》); "两年后回国想做音乐，去了华纳音乐，他们让我做达达的新唱片" (See Yuan's Blog, Nov. 20, 2012: 《带着任务去旅行—-三联书店讲座实录》); "回国后在华纳唱片公司上了 3 个月的班" (See Yuan's Blog, July 21, 2013: 《自由的代价》).

[11] In his *Life Gossips*, published in January 2010, Yuan wrote: "I started formally working for San Lian (Life Weekly) in September 2005. Before that, I had written music commentaries. However, San Lian already had Wang Xiaofeng as their music critic, I didn't know what subject I was good at. Miao Wei suggested that I have a Sci & Tech column, using my background in life sciences to introduce the new knowledge to our readers."(Original Chinese: "我是 2005 年 9 月正式来三联工作的。在此之前我只写过乐评，可三联已经有了专写音乐的王晓峰，我不知道自己适合写些什么。苗炜建议我开个科技专栏，利用我在生命科学领域的知识背景，向读者介绍科学新知。" See: Yuan Yue. *Postscript to Life Gossips*.《生命八卦·后记》). In 2012, Yuan wrote: "The recording industry was completely over, it now changed to an industry of singers and their moonlighting. I disliked this industry totally……I left Warner, although I like music very much, I didn't want to live on it. I know Wang Xiaofeng at the time, he asked me to come to San Lian, then I went to San Lian. At the time, I didn't know what to write, '*Life Gossips*' was a title given to me by Miao Wei, I wrote the column for the time being. Later, I was inspired by *The Motorcycle Diaries*, Guevara was an Argentinian, after graduating from medical school he traveled around Argentina, then South America. After that, he turned into a revolutionary. After watch movie, I felt my tour route designed according to the tour guide, was exactly the same as Guevara's experience before his becoming a revolutionary, which was especially unexpected. I have visited every place he had been, then I wanted to write travel essays. After visiting Argentina, I wrote a long essay, and posted on xici.com, after our editor-in-chief saw it, he told me, Yuan Yue, from now on you write just like this, you travel, I pay the money. I said Ok." (Original Chinese: "唱片产业彻底完蛋了，现在变成了歌星和走穴的产业，这个产业我完全不喜欢，而且当时很多时间去帮忙宣传周迅、孙楠这样的歌手，感觉很郁闷，就离开华纳，我虽然很喜欢音乐，但不想以此为生。我当时认识王晓峰，他说你来三联吧，我就去了三联，当时不知道写什么，"生命八卦"是苗伟给我起的名字，我先写着。后来又一天受到摩托日记启发，格瓦拉是阿根廷人，在医学院毕业在阿根廷转了一圈，又转了南美，转完之后变成革命家了，在他成为革命家之前的经过，我看了电影之后，感觉当时按照旅游书策划的路线跟格瓦拉一模一样，这也特别意外，他在阿根廷去的地方，我都去了，我就想写游记吧。去完阿根廷写了很长的游记发在西祠上，给我们主编看后，我们主编看了以后说袁越你以后就按这个路写，你去玩，我出钱，我说这个可以。" See Yuan's Blog, Nov. 20, 2012:《带着任务去旅行—-三联书店讲座实录》).

[12] Original Chinese: "**袁越《三联生活周刊》编辑、记者** 毕业于复旦大学生物工程系，在美国从事过 15 年分子生物学研究工作，2005 年回国并担任《三联生活周刊》科学记者。" green.sohu.com. *Asking 50 Peoples Ten Questions about Climate Changes: Life Weekly's Yuan Yue*. 2010-09-30 17:29. 搜狐绿色频道：《气候变化 10 问 50 人：〈三联生活周刊〉袁越》).

[13] Original Chinese: "毕业于复旦大学生物工程系，在美国从事过 15 年分子生物学研究工作，2005 年回国并担任《三联生活周刊》科学记者，同年开始参与报道气候变化，是国内最早关注该领域的记者之一。" (See: Science Report Workshop, the 3rd issue: *Analyzing Cold, Asking Warm*. November 2011. 第 3 期科学报道工作坊：《析"寒"问"暖"》).

[14] Original Chinese: "首先在我右手边您即将在画面中所看到的《三联生活周刊》的记者，在美国从事 15 年分子生物学研究工作的袁越，掌声欢迎袁越。" (See: Phoenix Satellite TV – Hu Yihu Talk Show. *Whether China Should Say No to GMO*. July 6, 2013. 凤凰卫视一虎一席谈：《中国该不该拒绝转基因》，2013 年 7 月 6 日). http://phtv.ifeng.com/program/yhyxt/detail_2013_07/07/27232611_0.shtml

[15] Yuan's original Chinese: "你们请来一个印度瘪三，一个神棍哲学家，一个搞贸易的，一个伪环保组织的成员来和一位农科院植物专家，一位农大食品安全专家，和一个搞过多年基因研究的科学记者辩论，把反转派放大到跟主流科学家平等的地位，居然还说自己是中立的？你们好意思吗？" (See: Yuan's Blog, June 28, 2013: *You Cannot Afford to Hurt the People with Anti-GMO Complex*.《反转控伤不起啊！》).

[16] See: *Preface to Life Gossips* by Yuan's female buddy, Ms. Chai Jing. (柴静：《〈生命八卦〉序》).

[17] Fang's original Chinese: "在生物科学的领域，没有相关博士学位的人是没有任何资格从事科研的，那些只有硕士学位的人尚且只能干干技术活，更不要说其他人了。那些'自学成才'的，都只能研究伪科学。" (See: Fang Zhouzi. *Comment on Zhu Haijun's Research on Evolution Theory*. XYS19991125.《评朱海军的进化论"研究"》).

[18] Yuan's original Chinese: "笔者曾经在一家只有 30 多人的生物技术公司工作过一段时间，……" (See: Yuan Yue. *When an Apple Falls on Your Head.* In *Life Gossips*. SDX Joint Publishing Company, 2010. pp.116-118. 袁越：《当苹果掉到你头上》，《生命八卦》，三联书店 2010 年版 116-118 页).

[19] Yuan's original Chinese: "我想起我 37 岁的时候才刚刚开始在三联工作，而在此之前我做过生物技术公司的实验员，还在唱片公司混过几个月，都不太满意，三联这份工作终于让我享受到渴望已久的自由生活。" (See: Yuan Yue. *Happy Birthday, Old Luo*. Yuan's Blog, July 23, 2010.《老罗生日快乐》).

[20] The Chinese translation of "State University" is always 州立大学 (zhōulì dàxué), and Yuan does know the rule, because he translated Arizona State University correctly. However, when mentioning his employment at the Ohio State University, Yuan deliberately deleted the State (州立) from the Chinese name of the university. (See note [2]).

[21] Yuan Y, et al. 1997. *Molecular cloning of a new intermediate filament protein expressed by radial glia and demonstration of alternative splicing in a novel heptad repeat region located in the carboxy-terminal tail domain*. Mol Cell Neurosci. 10:71-86. (Note: the database was searched with Yuan's last name plus the state name he claimed he was located at the time, and the search results were examined individually to verify the first name of the author, and his affiliation.)

[22] Both books are entitled *Life Gossips*, but with different content. The second one was published in 2013 by the same publisher as the first one. The publisher is the owner of Life Weekly.

[23] Original Chinese: "通常情况下，我每天都会浏览一遍国际顶尖的几个科学杂志的网站，比如《科学》和《自然》，以及我信得过的几个科普网站，比如《新科学家》和《发现》，还有国外主流综合性媒体的科学板块，比如《纽约时报》、《时代周刊》、《泰晤士报》和《卫报》的科学版等，从中寻找与生命科学有关的最新报道。一旦发现感兴趣的话题，我便动用维基和谷歌等搜索引擎，寻找一切可能找到的相关素材，再结合自己以前的积累，把科学家们的新成果通过一个自成体系的小故事介绍给读者。"(See: Yuan Yue. *Life Gossips*. SDX Joint Publishing Company, 2010. pp.521-522. 袁越：《〈生命八卦〉后记》，《生命八卦》2010 年版 521-522 页。Also see Yuan's Blog, Feb. 2, 2010:《生命八卦》).

[24] Original Chinese:
"张：'你能基本勾勒一下你平常收集信息、获取信息源的方式方法吗？你会跟踪哪些网站，以哪种方式来订阅等。'
袁：'《Nature》、《Science》、《科学美国人》、《新科学家》、《纽约时报》、《卫报》、《时代周刊》、《Discovery》、《The Scientist》。这些杂志全有网站。我基本上在家的时候每天必看。早上起来后，把所有的网站打开，看一下他们有什么新东西，然后感兴趣的去搜索一 下。只看一遍的话，基本上至少要两个小时，如果看到一个非常有意思的，接下去的话，时间就很快没了。'"
(See: Yuan Yue. *There Is no Logic of Good and Evil in the Reporting of Climate Changes*. Yuan's Blog, Nov. 26, 2011. 袁越：《气候变化报道没有善恶的逻辑》).

[25] Zimmer, C. *How Microbes Defend and Define Us*. New York Times, July 12, 2010.

[26] Khoruts A, et al. 2010. *Changes in the composition of the human fecal microbiome after bacteriotherapy for recurrent Clostridium difficile-associated diarrhea*. J Clin Gastroenterol. 44:354-60.

[27] Ananthaswamy A. *Taboo transplant: How new poo defeats superbugs*. New Scientist, 21 December 2010, 2791:36-37.

[28] Lucado J, et al. *Clostridium difficile Infections (CDI) in Hospital Stays, 2009*. *HCUP Statistical Brief #124*. Agency for Healthcare Research and Quality, Rockville, MD., published in January 2012.

[29] AP. *Last-ditch method at fighting intestinal superbug*. USA Today, Dec. 4, 2010.

[30] Miniño AM, et al. 2010. *Deaths: Preliminary Data for 2008*. National Vital Statistics Reports 59(2):6.

[31] van Nood E, et al. 2009. *Struggling with recurrent Clostridium difficile infections: is donor faeces the solution?*. Euro Surveill. 14:1-6.

[32] Stranges PM, et al. 2013. *Cost-effectiveness analysis evaluating fidaxomicin versus oral vancomycin for the treatment of Clostridium difficile infection in the United States*. Value Health. 16:297-304.

[33] Gough E, et al. 2011.*Systematic review of intestinal microbiota transplantation (fecal bacteriotherapy) for recurrent Clostridium difficile infection*. Clin Infect Dis. 53:994-1002.

[34] Freeman J, et al. 2010. *The changing epidemiology of Clostridium difficile infections*. Clin Microbiol Rev. 23:529-49.

[35] Kelly CP, LaMont JT. 2008. *Clostridium difficile*—more difficult than ever. *N. Engl. J. Med.* **359**: 1932–40.

[36] By August 2011, Dr. Khoruts and his colleagues had performed 43 fecal transplantations, with a success rate of 86%. See: Hamilton MJ, et al. 2012. *Standardized frozen preparation for transplantation of fecal microbiota for recurrent Clostridium difficile infection.* Am J Gastroenterol.107:761-7.