

13 MAG 1309

APPROVED:

*Zachary Feingold*

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Assistant United States Attorneys

BEFORE: THE HONORABLE DEBRA FREEMAN  
United States Magistrate Judge  
Southern District of New York

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UNITED STATES OF AMERICA	:	<u>SEALED COMPLAINT</u>
-v.-	:	Violations of
	:	18 U.S.C. §§ 371, 1519,
YUDONG ZHU,	:	and 2
XING YANG, and	:	
YE LI,	:	COUNTY OF OFFENSES:
	:	NEW YORK
Defendants.	:	

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SOUTHERN DISTRICT OF NEW YORK, ss.:

MICHAEL J. WENIGER, being duly sworn, deposes and says that he is a Special Agent with the Federal Bureau of Investigation ("FBI"), and charges as follows:

COUNT ONE

(Falsification of Records)

1. From at least in or about February 2010, up to and including in or about May 2013, in the Southern District of New York and elsewhere, YUDONG ZHU, the defendant, knowingly altered, destroyed, mutilated, concealed, covered up, falsified and made false entries in records, documents, and tangible objects with the intent to impede, obstruct, and influence the investigation and proper administration of matters within the jurisdiction of departments and agencies of the United States, to wit, the National Institutes of Health ("NIH") and related agencies, and in relation to and contemplation of such matters, to wit, in documents related to a multi-million dollar NIH research grant for ZHU to develop enhanced magnetic resonance

imaging ("MRI") technology, ZHU provided false statements regarding his affiliation with a Chinese government-sponsored research institution, a Chinese medical imaging company, and his application for and ownership of a patent that related to the research being funded by NIH, and failed to disclose information regarding such to NIH and others.

(Title 18, United States Code, Section 1519 and 2.)

COUNT TWO

(Commercial Bribery Conspiracy)

2. From at least in or about 2011, up to and including in or about May 2013, in the Southern District of New York and elsewhere, YUDONG ZHU, XING YANG, and YE LI, the defendants, and others known and unknown, willfully and knowingly combined, conspired, confederated, and agreed together and with each other to violate Title 18, United States Code, Section 1952(a)(3), to wit, ZHU, YANG, and LI conspired to have an executive of a Chinese medical imaging company provide financial benefits to YANG and LI in exchange for ZHU, YANG and LI acquiring certain research and non-public information at the U.S.-based university that employed them.

3. It was a part and an object of the conspiracy that YUDONG ZHU, XING YANG, and YE LI, the defendants, would and did travel in interstate commerce and use and cause to be used the mail and facilities in interstate commerce with the intent to promote, manage, establish, carry on, and facilitate the promotion, management, establishment, and carrying on of an unlawful activity, to wit, the receipt of commercial bribes, in violation of New York Penal Law Sections 180.05 and 180.08, and thereafter would and did perform and attempt to perform an act to promote, manage, establish, carry on, and facilitate the promotion, management, establishment, and carrying on of said unlawful activity, in violation of Title 18, United States Code, Section 1952(a)(3).

OVERT ACTS

4. In furtherance of the conspiracy and to effect the illegal object thereof, YUDONG ZHU, XING YANG, and YE LI, the defendants, and others known and unknown, committed the

following overt acts, among others, in the Southern District of New York and elsewhere:

a. In an email dated August 25, 2012, ZHU instructed YANG to give a receipt for YANG's tuition payment to a co-conspirator not named herein ("CC-1"), who was an executive at a Chinese medical imaging company.

b. Beginning in or about 2011, YANG received payments from CC-1 to reimburse YANG for his tuition payments.

c. In or about January 2013, LI accepted a position as a research associate professor at a Chinese government-sponsored research institution, and received compensation from that institution while still working on the NIH Grant in New York, New York.

d. From in or about 2008 through in or about 2013, ZHU, YANG, and LI each traveled between New York and China to conduct MRI-related research in China.

(Title 18, United States Code, Section 371.)

The bases for my knowledge and the foregoing charges are, in part, as follows:

5. I am a Special Agent with the FBI, and have been so employed for over two years. Before that, I was a Captain in the United States Army Judge Advocate General Corps for five years. I have participated in the investigation of this matter, and have spoken with other individuals, including other law enforcement officials, and have examined documents and other records. Where the contents of documents and the actions, statements and conversations of others are reported herein, they are reported in sum and substance, except where otherwise indicated. Moreover, because this affidavit is submitted for the limited purpose of establishing probable cause supporting the arrests of the defendants, I have not set forth each and every fact learned during the course of this investigation.

### THE RELEVANT PARTIES

6. From my review of materials on the websites of the entities discussed below, my discussions with an executive (the "Executive") for a university research medical center located in New York, New York (the "University"), and my review of materials provided by the University, I have learned the following:

a. YUDONG ZHU, the defendant, is a Chinese citizen who, from in or about 2008 through in or about May 2013, was an associate professor in radiology at the University. The University hired ZHU to teach and conduct research related to innovations in MRI technology, a field in which ZHU was well-regarded. In or about 2010, ZHU caused the University to apply for and receive a grant that provided millions of dollars in funding over a five-year period for ZHU's research relating to improving MRI imaging capability (the "NIH Grant"). Prior to his employment at the University, ZHU worked in China for an international company and developed technology related to magnetic resonance imaging ("MRI"). As discussed below, ZHU holds at least one patent related to MRI technology.

b. XING YANG, the defendant, is a Chinese citizen who, from in or about 2011 through in or about May 2013, was employed by the University in New York, New York, as a research engineer. ZHU recruited YANG to work with him on the NIH Grant at the University, and supervised him during his employment. Prior to his employment at the University, YANG received bachelor's and master's degrees from the University of Electronic Science and Technology of China. In or about 2008, Yang worked in China for an international company under ZHU's supervision on matters related to MRI technology.

c. YE LI, the defendant, is a Chinese citizen who, from in or about September 2012 through in or about May 2013, was employed by the University in New York, New York, as a postdoctoral fellow. ZHU recruited YANG to work with him on the NIH Grant at the University, and supervised him during his employment. Prior to his employment at the University, LI received bachelor's and doctorate degrees from Tsinghua University in China. As discussed below, LI was also a research associate professor at a Chinese government-sponsored research institution.

d. United Imaging Healthcare ("United Imaging") is a Chinese medical imaging company that manufactures, among other things, MRI equipment. As discussed below in paragraph 13(c), LI has stated that United Imaging receives funding from the Chinese government.

e. Shenzhen Institute of Advanced Technology ("SIAT") is a branch of the Chinese Academy of Science ("CAS") in Shenzhen, China, and was jointly established in 2006 by CAS, the Shenzhen municipal government, and Chinese University of Hong Kong. SIAT's stated mission is, in sum and in part, to enhance the innovation of modern equipment manufacturing and service industries in the region of Guangdong, China and Hong Kong, to promote the development of emerging industries with self-owned intellectual property, and to be an international top-class industrial research institution. SIAT is comprised of several divisions, including the Institute of Biomedical and Health Engineering ("IBHE").

f. CC-1 is employed in China by United Imaging as Chief Executive Officer of that company's research and development center for advanced medical devices. Also, as discussed below, CC-1 is affiliated with a Chinese government-sponsored research facility.

#### OVERVIEW OF THE DEFENDANTS' CRIMES

7. Based on my investigation and my familiarity with the facts related to this matter, and as set forth in greater detail below, I have learned the following:

a. ZHU is an accomplished researcher and innovator in the field of MRI technology. In or about 2008, the University hired ZHU to teach and continue his research to develop enhanced imaging capabilities for MRI scanners. According to ZHU, the primary purpose of his joining the University was to conduct his research at a specific University laboratory that possessed highly specialized equipment to test MRI innovations. The University employed several researchers and students to assist ZHU with his research.

b. In or about 2010, ZHU caused the University to apply for and receive the NIH Grant, which was awarded for ZHU to research and develop certain technology to improve MRI

imaging capability. The NIH Grant awarded millions of dollars over a five-year period to fund ZHU's research. After ZHU started his research pursuant to the NIH Grant, ZHU arranged for XING YANG and YE LI, the defendants, to move to New York from China to work with him in or about 2011 and 2012, respectively. ZHU also arranged for certain payments to be made to YANG and LI by CC-1, who (1) was an executive with United Imaging, a Chinese medical imaging company, and (2) was affiliated with SIAT, a Chinese government-sponsored research institute. While working on the NIH Grant at the University, YANG shared information regarding his and ZHU's research with individuals at United Imaging in China. LI, despite being employed at the University to assist with the NIH Grant research, was simultaneously employed by United Imaging and SIAT, with which CC-1 was affiliated. ZHU, YANG, and LI concealed from and failed to disclose to the University these payments from and relationships with competing research entities in China.

c. ZHU also had material conflicts of interest that he concealed from and failed to disclose to the University. ZHU owned a patent related to MRI technology, the value of which would be directly impacted by ZHU's NIH Grant research. In addition, at the same time that he was leading the research for the NIH Grant, ZHU, with CC-1, was leading a similar research project in China related to MRI technology that was funded by a grant from the Chinese government. ZHU and CC-1 were also part of a research team at SIAT. In forms that the University required ZHU to complete in connection with the NIH Grant, ZHU falsely answered questions regarding outside affiliations and financial conflicts of interest.

#### NIH AND RESEARCH GRANTS PROVIDED BY NIH

8. From my review of publicly available NIH materials and federal regulations, I have learned the following:

a. The NIH is part of the United States Department of Health and Human Services ("HHS"), and is the primary agency of the United States government responsible for biomedical and health-related research. Among the goals of the NIH are to promote scientific research that will help protect and improve the health of the U.S. population, to develop resources that will ensure the prevention of disease, to foster economically beneficial discoveries that will yield a return on

the public investment in biomedical research, and generally to promote the expansion of knowledge in medical and health-related fields.

b. To achieve these goals, the NIH distributes the vast majority of its funding, which is derived from Congress's annual budget appropriation to HHS, to provide research grants to scientific investigators to fund research in these areas. If a grant applicant works at a university or other research institution, the grant is typically drafted and filed by that institution's principal scientific investigator, in conjunction with the research institution where the investigator works.

c. NIH grants are subject to federal regulations, which are codified in the Code of Federal Regulations ("CFR"). These include, among other things, rules governing conflicts of interest. See 42 C.F.R. § 50.601-50.607. Section 560.603 of the CFR defines a "financial conflict of interest" as "a significant financial interest that could directly and significantly affect the design, conduct, or reporting of [the] research." Financial interest means anything of monetary value, whether or not the value is readily ascertainable. See 42 C.F.R. § 50.603. A "significant financial interest" includes intellectual property rights and interests, and payments by an entity totaling \$5,000 or more in the previous year. See *id.* A financial interest exists regardless of whether the monetary value of such interest is readily ascertainable. See *id.*

d. According to these regulations, research institutions that employ grant recipients must enact compliance procedures to ensure that the conflict of interest disclosure obligations are satisfied. If a conflict of interest is identified, the research institutions must also address the conflict in a timely manner and, if necessary, impose conditions or restrictions to manage the conflict. The remedial measures that can be taken range from public disclosure of the conflict to elimination of the conflicting financial interest or severance of the relationships creating the conflict. See 42 C.F.R. § 50.605.

YUDONG ZHU'S PATENT

9. From my review of U.S. Patent and Trademark Office documents, I have learned the following:

a. On October 27, 2008, YUDONG ZHU, the defendant, filed a provisional patent application for an invention that ZHU named the "Constellation Coil." As claimed in ZHU's patent application, the Constellation Coil is an advancement in the way in which the radio frequency coils used in MRI scanners are configured and interact with each other. The claimed advantage of the Constellation Coil was that it could produce higher-quality MRI images.

b. On October 26, 2009, ZHU filed a final application for the same patent.

c. On November 27, 2012, the USPTO issued United States patent 8,319,495 B1 to ZHU for the Constellation Coil (the "Constellation Coil Patent").

10. As set forth in detail below, YUDONG ZHU, the defendant, intentionally failed to disclose his patent to the University, and the University only became aware of ZHU's patent in connection with its own investigation in or about May 2013.

THE UNIVERSITY'S INVESTIGATION

11. From my discussions with the University Executive, I have learned that, in or about early 2013, University officials conducted an internal investigation regarding YUDONG ZHU, XING YANG, and YE LI, the defendants, and their research related to the NIH Grant. Among other things, the University reviewed emails sent to and from University email accounts used by ZHU, YANG, and LI, confiscated and examined University-owned laptop computers that were used by YANG and LI, and installed surveillance cameras in a work area used by ZHU, YANG, and LI, as well as another University research team ("Research Team-2").<sup>1</sup>

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<sup>1</sup> Research Team-2 was conducting research that was sponsored by the University and an international electronics company that manufactures, among other things, MRI equipment (the "Research Team-2 Grant"). As with the NIH Grant, the objectives of the Research Team-2 Grant related to improving images created by MRI equipment.



12. University officials determined that ZHU, YANG, and LI had undisclosed affiliations with United Imaging and SIAT, and that ZHU and YANG had been communicating with individuals at these entities regarding MRI-related research that was the subject of the NIH Grant. University officials were also concerned that ZHU, YANG, and LI were disclosing confidential proprietary information regarding both ZHU's NIH Grant research and the research being conducted by Research Team-2. For example, materials reviewed by the University revealed the following:

a. On or about April 15, 2013, University surveillance cameras captured YANG in a University research work area taking photographs of equipment that was designed by Research Team-2 as part of the Research Team-2 Grant.

b. LI's University laptop computer contained photographs, taken on or about April 15, 2013, of the equipment that was designed as part of the Research Team-2 Grant.

c. As part of its investigation, the University obtained IBHE's 2011-2012 annual report, which included photographs of several individuals who are affiliated with IBHE and SIAT. One particular page of the report includes photographs of members of IBHE's "innovation teams," including the "Guangdong Innovation Research Team for Advanced Magnetic Resonance Imaging Techniques" (the "MRI Research Team"). As discussed below in paragraph 13(a), photographs of ZHU and CC-1 were included as members of IBHE's MRI Research Team.

d. During their employment at the University, ZHU, YANG, and LI, the defendants, each maintained an email address that included the domain "united-imaging.com".

e. As part of its investigation, the University obtained a United Imaging employee registration for LI, which included LI's signature dated September 27, 2012.

f. On numerous occasions from in or about August 2011 through in or about January 2013, individuals with email addresses that included the "united-imaging.com" domain corresponded with ZHU and YANG regarding issues related to MRI equipment prototypes, experiments and project updates. These emails were sent to and/or from ZHU's personal Gmail account,

ZHU's United Imaging email address and YANG's Hotmail account, among others.

g. YANG possessed scanned images of United Imaging records that reflected the purchase of components of MRI equipment.

13. On May 8, 2013 and following their review of the materials described above, among other things, the University Executive and others confronted YUDONG ZHU, XING YANG, and YE LI, the defendants, with the University's findings regarding the defendants' conflicts of interest and unauthorized disclosure of confidential information, and separately interviewed ZHU, YANG, and LI. From my discussions with the University Executive regarding these interviews, I have learned the following:

a. ZHU stated, in sum and in part, that (1) In 2008, shortly before the University hired him, ZHU filed a provisional patent application with the United States Patent and Trademark Office ("USPTO") for a "Constellation Coil", an innovation related to the arrangement and placement of coils used in MRI equipment. Approximately one year later, ZHU submitted a final patent application to the USPTO for the Constellation Coil; (2) In or about 2011, ZHU, at CC-1's request, joined CC-1's research team as a co-lead investigator for a grant provided by a Chinese government agency to develop innovations to MRI technology (the "China Grant"). CC-1 was the principal investigator for the China Grant. The research ZHU conducted for the China Grant and the NIH Grant both related to MRI technology and were "synergistic"; (3) In connection with the China Grant, ZHU traveled to China on approximately six occasions to assist with the grant research. Each of these trips was paid for by SIAT; (4) ZHU informed CC-1 that he wanted YANG to join ZHU's NIH Grant research team at the University. ZHU and CC-1 agreed that, while YANG worked at the University, CC-1 would pay for YANG's tuition at a graduate school in New York, New York that was affiliated with the University. ZHU arranged for CC-1 to paid for LI's rental apartment; and (5) ZHU confirmed that his photograph appeared in the IBHE 2011-2012 annual report as a member of IBHE's MRI Research Team. ZHU also identified CC-1 as being one of the individuals depicted in photographs of the MRI Research Team.

b. YANG stated, in sum and in part, that:

(1) In order to convince YANG to come to the United States to join ZHU's NIH Grant team, ZHU promised YANG that CC-1 would pay for YANG's tuition; (2) YANG sent his tuition receipts, which totaled approximately \$20,000, to CC-1, and was reimbursed; (3) CC-1 paid for YANG's travel between China and New York; (4) YANG shared with individuals at United Imaging research results from his and ZHU's work at the University that was conducted pursuant to the NIH Grant; (5) CC-1 is affiliated with the "Chinese government research center." CC-1 leads the research at United Imaging and has a position at SIAT; (6) ZHU is currently leading a research project at United Imaging; and (7) LI works at United Imaging.

c. LI stated, in sum and in part, that: (1) As of January 2013, LI has been a research associate professor at SIAT. As part of his application for this position, he was interviewed by CC-1 in or about September 2012; (2) CC-1 paid for LI's January and March 2013 travel between China and New York; (3) CC-1 paid for LI's rental apartment, on the understanding that other researchers from China would stay at the apartment with LI. On at least two occasions in or about late 2012, researchers who worked at United Imaging stayed at the apartment with LI; (4) LI was paid thousands of dollars by SIAT in or about 2013; (5) United Imaging is being funded by the Chinese government in connection with an MRI-related research project, and that ZHU performs the same work on research for that project as he does at the University. LI has worked with ZHU at SIAT on this project; and (6) The research projects conducted pursuant to the China Grant and the NIH Grant were a "collaboration." LI planned to return to China to continue working on the China Grant research.

14. From a discussion with another law enforcement officer, I have learned that, on May 10, 2013 (two days after being interviewed by the University), LI flew on a commercial flight from Newark, New Jersey to Hong Kong. LI has not returned to the United States.

ZHU'S FALSE STATEMENTS RELATED TO THE NIH GRANT

15. From my review of documents provided by the University and my discussions with the University Executive and others affiliated with the University, I have learned that:

a. To satisfy its obligation of ensuring that grant-related research performed by the University is free of conflicts of interest, the University requires all investigators and other participating researchers to complete a "Investigator Financial Interest Disclosure Form." YUDONG ZHU, XING YANG, and YE LI, the defendants, each filled out one of these disclosure forms for each year that they participated that in ZHU's NIH Grant.

b. In financial interest disclosure forms dated February 24, 2010, December 7, 2011, and December 5, 2012, ZHU certified that the following statements were complete and true:

(i) ZHU stated that he did not "have any Intellectual Property Rights (i.e., rights in patents, copyrights, other licensing fees) . . . related to products or processes being used, or covering products or processes being used, in the [NIH Grant] study."

(ii) ZHU also stated that he did not hold "an Outside Position (i.e., an appointment to serve in a paid or unpaid position (e.g., as a director, trustee, partner, senior executive, officer or employee)) in an entity that may appear to affect or be affected by the conduct or outcome of [the NIH Grant] study."


16. In truth and in fact, and as YUDONG ZHU, the defendant, well knew, the above-referenced statements were false and misleading. For example:

a. ZHU applied for and owned the Constellation Coil Patent, which directly related to the products and processes being used in the NIH Grant study.


b. ZHU was a co-lead investigator of the research team that was conducting similar MRI technology research in China pursuant to the China Grant. In addition, as discussed above in paragraphs 12(c) and 13(a), ZHU is listed as

a member of the IBHE's MRI Research Team at SIAT. Moreover, ZHU was provided a "united-imaging.com" email address and maintained email contact with United Imaging personnel on issues related to MRI research. According to the University Executive and based on the clear meaning of the term "position," these affiliations and positions each constituted an "outside position" in an entity that "may appear to affect or be affected by the conduct or outcome" of the NIH Grant study.

WHEREFORE, the deponent respectfully requests that arrest warrants be issued for YUDONG ZHU, XING YANG, and YE LI, the defendants, and that they be arrested and imprisoned, or bailed, as the case may be.

  
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MICHAEL J. WENIGER  
Special Agent  
Federal Bureau of Investigation

Sworn to before me this  
19th day of May, 2013

  
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THE HONORABLE DEBRA FREEMAN  
UNITED STATES MAGISTRATE JUDGE  
SOUTHERN DISTRICT OF NEW YORK