

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION**

**UNITED STATES OF AMERICA**

§

**VS.**

§

No. 4:20-cr-00455

§

**ZHENG DONG CHENG**

§

§

**MOTION TO DISMISS FOR FAILURE TO ALLEGE AN OFFENSE**

TO THE HONORABLE ANDREW S. HANEN, UNITED STATES DISTRICT JUDGE:

ZHENG DONG CHENG, Defendant (“Prof. Cheng”), pursuant to Federal Rules of Criminal Procedure 12(b)(3)(B)(v), moves that the Indictment against him be dismissed and shows:

**I. SUMMARY**

The Indictment is fatally flawed. The NASA Grant, NNX13AQ60G (“Grant”), that is the basis of this prosecution is not subject to the so-called “NASA China Funding Restriction” because it was intended to, and did, involve collaboration researchers based in Madrid, Spain from the inception. Dkt. 1 ¶ 17. Later, Russian scientists were added to the scientific project the grant funded. However, the NASA China Funding Restriction only prohibits *bilateral* work with China or Chinese corporations, involving *no* other countries or foreign institutions. The express collaboration with Spanish researchers on the Grant proposal rendered the NASA China Funding Restriction *inapplicable*.

Because NASA’s China Funding Restriction does not apply, none of the 17 Counts against Professor Cheng states a criminal offense. Each Count is predicated on the allegation that “fraudulent representations and omissions to TAMU about [Prof. Cheng’s China] affiliations caused TAMU to falsely certify to NASA that TAMU was in compliance with NASA’s China

Funding Restriction regarding a NASA-funded project that TAMU sought and obtained on Cheng's behalf." Dkt. 1 at ¶ 13; ¶ 55 (Count One), ¶ 56 (Counts 2-8), ¶ 60 (Counts 9-17). Since the statutory NASA China Funding Restriction only applies to *bilateral* arrangements with China or with Chinese corporations, and the application Prof. Cheng drafted, and the Grant proposal Texas A&M University ("TAMU") submitted and NASA funded, was a *multilateral* project involving international collaborators that was exempt from the NASA China Funding Restriction, Texas A&M did not falsely certify to NASA that TAMU was in compliance with NASA's China Funding Restriction.<sup>1</sup>

The Indictment, itself, articulates that Prof. Cheng's scientific project was a *multilateral* arrangement involving international collaborators, from Madrid, Spain. Dkt. 1 at ¶ 17. The Indictment acknowledges that it was Prof. Cheng who approved inclusion of the international collaborators in the Grant proposal he drafted, making the Grant fundable regardless of collaboration with China or Chinese corporations. *Id.* The Indictment refers not just to Public Law 112-55, Section 539, the plain language of which establishes that only *bilateral* arrangements are covered, *Indictment* ¶ 14(a), but also to NASA's FAQ guidance, which instructs researchers that NASA's China Funding Restriction does not apply to work on *multilateral* projects. Dkt. 1 at ¶ 34. Besides failing to describe an offense, the Indictment also shows the Government recognized that the NASA Grant was fundable despite any affiliations with Chinese enterprises. Consequently, dismissal of the Indictment is appropriate in this case.

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<sup>1</sup> This is not an espionage case. Moreover, according to recently disclosed discovery materials, NASA's own experts have determined that the "liquid Crystal work which was the subject matter of the NASA grant to Texas A&M is not export controlled."

## II. STANDARDS

Federal Rule of Criminal Procedure 7(c)(1) requires that the Indictment be a “plain, concise, and definite written statement of the essential facts constituting the offense charged.” See F.R.C.P. 7(c)(1). A motion to dismiss an indictment for failure to state an offense is a challenge to the sufficiency of the indictment; therefore, the Court is required to “take the allegations of the indictment as true and to determine whether an offense has been stated.” *United States v. Kay*, 359 F.3d 738, 742 (5th Cir.2004).

## III. ARGUMENT

### A. The Statute Plainly and Exclusively Covers Bilateral Activities with China

The Indictment relies on and quotes the restrictions contained in Pub Law 112-55 Sec. 539, 15 STAT. 639 (“Section 539”).<sup>2 3</sup> See Dkt. 1 at pp. 1-4.<sup>4</sup> However, this restriction, known as the “Wolf Amendment” only prohibits *bilateral* engagements between NASA and China, not *multilateral* work involving any other country. The first page of the Indictment recognizes this:

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<sup>2</sup> The text of [Pub Law 112-55 Sec. 539, 15 STAT. 639](#) 539 (emphasis added) reads:

Sec. 539 (a) None of the funds made available by this Act may be used for the National Aeronautics and Space Administration (NASA) or the Office of Science and Technology Policy (OSTP) to develop, design, plan, promulgate, implement, or execute a **bilateral** policy, program, order, or contract of any kind to participate, collaborate, or coordinate **bilaterally** in any way with China or any Chinese-owned company unless such activities are specifically authorized by a law enacted after the date of enactment of this Act. (b) The limitation in subsection (a) shall also apply to any funds used to effectuate the hosting of official Chinese visitors at facilities belonging to or utilized by NASA. (c) The limitations described in subsections (a) and (b) shall not apply to activities which NASA or OSTP have certified pose no risk of resulting in the transfer of technology, data, or other information with national security or economic security implications to China or a Chinese-owned company. (d) Any certification made under subsection (c) shall be sub-mitted to the Committees on Appropriations of the House of Representatives and the Senate no later than 14 days prior to the activity in question and shall include a description of the purpose of the activity, its major participants, and its location and timing.

<sup>3</sup> A similar provision was included in NASA’s 2011 continuing resolution at Section 1340(a) of The Department of Defense and Full-Year Appropriations Act, 2011, [Public Law 112-10](#), 125 STAT. 123.

<sup>4</sup> Despite the statements in the Indictment, these restrictions do not appear in the text of 14 C.F.R. 1260. Compare “Indictment,” ECF 1 at pp. 5-6 with [14 C.F.R. 1260](#). Part 1260 also available at [https://prod.nais.nasa.gov/pub/pub\\_library/Granta.html](https://prod.nais.nasa.gov/pub/pub_library/Granta.html) (last viewed January 13, 2021).

2. In 2011, Congress passed The Department of Defense and Full-Year Appropriations Act, Public Law 112-10 and the Consolidated and Further Continuing Appropriations Act of 2012, Public Law 112-55. Under these Acts, NASA was prohibited from using appropriated funding to enter into or fund any grant or cooperative agreement of any kind to participate, collaborate, or coordinate bilaterally in any way with China or any Chinese-owned company ("NASA's China Funding Restriction").

3. NASA defined "China or any Chinese-owned company" to include Chinese universities because Chinese universities are considered to be incorporated under the laws of the People's Republic of China ("PRC").

Dkt. 1 at ¶¶ 1-2. That the plain text of the Wolf Amendment prohibits only "bilateral" collaboration between NASA and China has always been understood by the author of the Amendment, the Department of Justice, NASA, and other institutions.

**B. Congressional and Agency Authority, including DOJ's Office of Legal Counsel's Own Position, Makes the NASA China Funding Restriction Inapplicable to Multilateral Arrangements Involving International Collaborators.**

In October of 2013, then Congressman Frank Wolf wrote a widely publicized letter to NASA correcting its misapplication of his amendment and explaining the law.<sup>5</sup> He stated, in part:

As you know, the congressional provision – which has been in place since early 2011 – **primarily restricts bilateral, not multilateral, meetings and activities with the Communist Chinese government or Chinese-owned companies.**<sup>6</sup>

Congressman Wolf's interpretation of the express language of the statute he authored was anticipated by the Department of Justice. In 2011, the DOJ Office of Legal Counsel issued an opinion that the NASA China Funding Instruction was unconstitutional to the extent it interfered with the President's power to conduct diplomacy. 35 Op. O.L.C. 116 (2011). The Government

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<sup>5</sup> See e.g., BBC, "NASA reverses conference's ban on Chinese scientists." (October 21, 2013) available at <https://www.bbc.com/news/world-asia-24618824> (last viewed October 27, 2021); Sample, Ian, "Nasa admits mistake over Chinese scientists' conference ban" *The Guardian* (October 11, 2013) available at <https://www.theguardian.com/science/2013/oct/11/nasa-chinese-scientists-conference-ban> (last viewed October 27, 2021);

<sup>6</sup> Smith, Marcia, "Text of October 2013 Wolf Letter to Bolden Regarding Chinese Nationals at NASA Facilities" Spacepolicyonline.com (October 9, 2013) available at <https://spacepolicyonline.com/news/text-of-october-2013-wolf-letter-to-bolden-regarding-chinese-nationals-at-nasa-facilities/> (last viewed October 27, 2021).

recently produced this 2011 OLC opinion to Prof. Cheng’s counsel pursuant to *Brady v. Maryland*, 373 U.S. 83 (1963). The DOJ 2011 OLC opinion also concludes that the NASA Funding Restriction,

Applies only to agreements between the United States and China or any Chinese-owned company that are both **“bilateral” and in some sense cooperative**. See 157 Cong. Rec. H2741 (daily ed. Apr. 14, 2011) (statement of Rep. Wolf) (describing provision as prohibiting OSTP “from participating in bilateral cooperation with China”).

*Id.* (emphasis added).<sup>7</sup> That opinion should have precluded commencement of this prosecution.

Office of Legal Counsel Opinions are “controlling on questions of law within the Executive Branch.” Memorandum from Steven G. Bradbury, Principal Deputy Assistant Att’y Gen., Office of Legal Counsel, to Attorneys of the Office, Re: Best Practices for OLC Opinions (May 16, 2005).<sup>8</sup> The OLC determination that NASA’s China Funding Restriction applies exclusively to *bilateral* arrangements, and not to *multilateral* ones, has bound the Government, including the DOJ, since 2011. Furthermore, the OLC Opinion means that even if a grant is not multilateral, merely holding a position in a Chinese institution or enterprise is insufficient to trigger the NASA Funding Restriction. Consequently, the Government cannot prosecute based on violations of the NASA’s China Funding Restriction in the absence of cooperative, exclusively *bilateral* activity with China or a Chinese business on a NASA funded project. *Multilateral* activity, such as that described in the Indictment, is not subject to prosecution.

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<sup>7</sup> Attached as Ex. A. Available at <https://www.justice.gov/olc/file/2011-09-19-ostp-china/download> (last viewed October 27, 2021).

<sup>8</sup> Available at <https://irp.fas.org/agency/doj/olc/best-practices.pdf> (last viewed October 29, 2021).

In 2012, one year before TAMU sought NASA funding for Prof. Cheng’s scientific proposal, NASA published FAQ guidance (to which the Indictment refers in ¶34) regarding Research Opportunities in Space and Earth Sciences (“ROSES”). That guidance states, in part that,

Work that involves investigators affiliated with institutions in other countries in addition to the PRC and USA and/or work done under the auspices of a multilateral organization is generally permitted. For example, posting content to a publicly accessible web page content does not constitute a bilateral activity. Chinese institutions will continue to have access to NASA public data, data products, publications etc., and NASA funded investigators can use publically (sic.) available data from China.<sup>9</sup>

This guidance was not provided in a vacuum or without consequence. Given NASA’s clarification that funding restrictions only applied to *bilateral* arrangements, the Office of Research and Graduate Studies for the University of California system circulated a Memo on Operating Guidance in 2013 “to assist University of California campuses managing NASA-funded awards,” to which NASA’s Guidance for ROSES was attached. The Operating Guidance explained that, as used in Section 539,

Bilateral applies to a policy, program, order, or contract, means a reciprocal policy, program, order, or contract between China and a US entity, where there are no other international parties involved. This is distinct from a multilateral arrangement with parties from multiple countries. The NASA funding restriction does not apply to multilateral arrangements.<sup>10</sup>

Princeton University issued similar “NASA Guidance” explaining that the restrictions imposed by the Wolf Amendment applies to *bilateral* activities with China or any Chinese-owned company but “do[] not apply to *multilateral* activities. Nor does it restrict the participation of

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<sup>9</sup> National Aeronautics and Space Administration “NASA SHARE THE SCIENCE, For Researchers: SARA PRC FAQ for ROSES, <https://science.nasa.gov/researchers/sara/faqs/prc-faq-roses> (last viewed October 27, 2021).

<sup>10</sup> University of California, Research Policy Analysis & Coordination, “Memo Operating Guidance No. 13-06” (November 1, 2013) available at <https://researchmemos.ucop.edu/php-app/index.php/site/document?memo=U1BBQy0xMy0wNg==&doc=3687> (last viewed October 27, 2021)

Chinese students or visiting scholars in NASA projects” (emphasis added).<sup>11</sup> DOJ, NASA and major research institutions all read the plain language of the Wolf Amendment to permit NASA funding of multilateral projects even if they involve China and Chinese businesses. This Court should read the text no differently.

**B. As Reflected in the Indictment, The Grant TAMU procured was Multilateral and therefore Exempt from NASA’s Funding Restriction.**

The Indictment quotes NASA’s China Funding Restriction. Dkt. 1 at ¶¶ 1, 2, and 18. The plain text of that statute confines its application to *bilateral* arrangements with China. *Id.*; Pub Law 112-55 Sec. 539, 15 STAT. 639. Yet, in paragraph 17 of the Indictment the Government acknowledges that TAMU submitted the Grant proposal for funding for a *multilateral* scientific project as follows:

17. In April 2013, TAMU submitted its grant proposal to NASA. TAMU’s proposal for the Grant omitted any involvement with individuals/entities in China and clearly stated that the PI, the Co-Investigator, Equipment, and Facilities did not involve activities outside the U.S. or partnerships with international collaborators, other than collaborators from Madrid, Spain, who were to do theoretical modeling work. In the section titled, “International Collaboration,” which prompted the Principal Investigator, *i.e.* Cheng, to disclose whether there would be international collaboration in the grant, the proposal stated: “No.” TAMU’s proposal for the

Dkt. 1 at ¶17 (emphasis added).

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<sup>11</sup> Princeton University, Research & Project Administration, “NASA Guidance” (Last updated June 8, 2021) available at <https://orpa.princeton.edu/resources/inappropriate-foreign-influence/nasa-guidance> last viewed October 27, 2021.

The slanted language in the Indictment downplays the *multilateral* nature of the work that Prof. Cheng was leading. Nonetheless, it is evident from paragraph 17 that the Government recognizes that the Grant proposal TAMU submitted informed NASA of the following:

1. the Grant would involve scientific activities conducted outside the United States and China;
2. International collaborators based in Madrid Spain, would be involved in those scientific activities; and
3. The type of work that the international collaborators were charged with conducting – i.e., theoretical modeling – was integral to the project.

Furthermore, the Indictment acknowledges that Prof. Cheng was “part of a research team that applied for, and ultimately received, a \$746,967 Grant to conduct research for NASA.” Dkt. 1 at ¶9. As the Principal Investigator, Prof. Cheng approved the Grant proposal’s inclusion of international collaborators from Madrid, Spain. Dkt. 1 at ¶ 17. Because the scientific work for which TAMU sought NASA funding involved other countries, TAMU submitted and NASA funded a grant that complied with rather than violated the NASA China Funding Restriction.

**C. Scientific Work the Grant Funded Was Conducted Under the Auspices of a Multilateral Organization and Therefore Exempt From the NASA China Funding Restriction**

The plain language of the statute narrowly confines the NASA China Funding Restrictions to *bilateral* collaboration with China and Chinese corporations. At the same time NASA’s agency interpretation of the type of relationships that do **not** count as bilateral is expansive. According to NASA guidance for ROSES researchers, work with China or a Chinese entity that is conducted “under the auspices of a multilateral organization is generally permitted,” and the China Funding Restriction does not apply. *Merriam-Webster* defines “under the auspices” as “with the help and



support of (someone or something).<sup>12</sup> Auspices is not a limiting term. Instead, “auspices” expands, rather than narrows, the kinds of relationships that may qualify as “work conducted under” another person or entity. *See, e.g., Ryan v. Dow Chemical Co.*, 781 F.Supp. 934, 946 (E.D.N.Y.1992); *Overly v. Raybestos-Manhattan*, No. C-96-2853 SI, 1996 WL 532150, at \*3 (N.D. Cal. Sept. 9, 1996).

In this case, the Grant TAMU received was for Prof. Cheng to conduct scientific experiments on the International Space Station, which is *multilateral* by statute. The “Agreement between the United States and Other Governments, signed January 29, 1998, Pursuant to Public Law 89—497, approved July 8, 1966 (80 Stat. 271; 1 U.S.C. 113), “concerning cooperation on the international space station” establishes that the *entire* project is *multilateral*. In fact, the entity is called the “Multilateral Space Station,” and its operation is governed by Memorandum of Understanding between NASA and multiple international agencies and other governments. Article 7 of the Agreement between the United States and Other Governments concerning cooperation on the International Space Station states that,

Management of the Space Station will be established on a multilateral basis and the Partners, acting through their Cooperating Agencies, will participate and discharge responsibilities in management bodies established in accordance with the MOUs and implementing arrangements as provided below. These management bodies shall plan and coordinate activities affecting the design and development of the Space Station and its safe, efficient, and effective operation and utilization, as provided in this Agreement and the MOUs. In these management bodies, decision-making by consensus shall be the goal.<sup>13</sup>

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<sup>12</sup> “Under the auspices of.” *Merriam-Webster.com Dictionary*, Merriam-Webster, available at <https://www.merriam-webster.com/dictionary/under%20the%20auspices%20of>. (last viewed October 27, 2021).

<sup>13</sup> Available at <https://www.state.gov/wp-content/uploads/2019/02/12927-Multilateral-Space-Space-Station-1.29.1998.pdf> (last viewed October 27, 2021).

Because scientific work funded by the Grant in this case was to be conducted on an international platform that is managed on *multilateral* basis, it was therefore being “done under the auspices of a multilateral organization.” According to the plain text of the statute, the Department of Justice’s 2011 OLC Opinion, and NASA’s own guidance, NASA’s Funding Restriction did not apply. Therefore, Prof. Cheng did not cause TAMU or NASA to violate it.

**D. The Government was Aware that the Grant was Multilateral but Misrepresented the Facts in the Indictment.**

The Indictment shows that the Government was aware that Prof. Cheng’s scientific project was *multilateral*, because it involved, as stated in the Indictment, international collaborators based in Madrid, Spain. Dkt. 1 at ¶ 17. The Indictment also shows the Government was aware of NASA’s guidance to ROSES researchers. That guidance is contained in a Frequently Asked Questions (FAQ) publication, and the Indictment references this FAQ publication. Dkt. 1 at ¶34.

Nevertheless, the Government insinuates in the Indictment that the FAQ could only put Prof. Cheng on notice that he was seeking funding in violation of NASA’s China Funding Restriction on funding for bilateral projects with China. Dkt. 1 at ¶ 34. However, the FAQs the Government cites make clear “work that involves investigators affiliated with institutions in other countries in addition to the PRC and USA,” such as the investigators from Madrid, Spain, “is generally permitted.”<sup>14</sup>

The Government further insinuates in the Indictment that Prof. Cheng denied that there was international collaboration in order to hide his China affiliations. However, it is the Government that is trying to cover up the fact that Prof. Cheng made the Grant a multilateral project involving international collaborators that TAMU could submit and NASA could fund without violating

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<sup>14</sup> See fn. 9 at A5.

NASA's China Funding Restriction. Referring to the Grant proposal TAMU submitted, paragraph 17 Indictment states the following:

who were to do theoretical modeling work. In the section titled, "International Collaboration," which prompted the Principal Investigator, *i.e.* Cheng, to disclose whether there would be international collaboration in the grant, the proposal stated: "No." TAMU's proposal for the

Dkt. 1 at ¶ 17 (emphasis added). However, this is absolutely false and the Government knew it.

The Cover Page for Proposal Submitted to the National Aeronautics and Space Administration, Section II, shows that Prof. Cheng was indeed prompted to disclose "International Participation" and the Grant states, "Yes". The Cover Page also prompted Prof. Cheng to identify the "Type of International Participation" and the Grant states "Collaborator" as follows:

SECTION II - Application Information			
NASA Program Announcement Number <b>NNH13ZTT001N</b>		NASA Program Announcement Title <b>Research Opportunities in Complex Fluids and Macromolecular Biophysics</b>	
For Consideration By NASA Organization (the soliciting organization, or the organization to which an unsolicited proposal is submitted) <b>NASA, Headquarters, Human Exploration and Operations Mission Directorate, Space Life &amp; Physical Sciences Research &amp; Applications, Physical Sciences</b>			
Date Submitted <b>04 / 10 / 2013</b>	Submission Method <b>Electronic Submission Only</b>	Grants.gov Application Identifier	Applicant Proposal Identifier
Type of Application <b>New</b>	Predecessor Award Number	Other Federal Agencies to Which Proposal Has Been Submitted	
International Participation <b>Yes</b>	Type of International Participation <b>Collaborator</b>		
SECTION III - Submitting Organization Information			

Ex. B (emphasis added).

A few pages later in Section VIII, the Grant proposal provides additional detail about the international collaboration on the grant. Section VIII contains a prominent field for "International Collaboration," which prompted Prof. Cheng to disclose whether "[t]his project involve[s] activities outside the the U.S. or with International Collaborators." Prof. Cheng again answered "Yes," and explained, as prompted, what the collaboration would involve, as follows:

PI Name : Zhengdong Cheng		NASA Proposal Number <b>13-13CFStep2-0008</b>		
Organization Name : Texas Engineering Experiment Station				
Proposal Title : Liquid Crystals of Nanoplates				
<b>SECTION VIII - Other Project Information</b>				
<b>Proprietary Information</b>				
Is proprietary/privileged information included in this application? <b>Yes</b>				
<b>International Collaboration</b>				
Does this project involve activities outside the U.S. or partnership with International Collaborators? <b>Yes</b>				
Principal Investigator <b>No</b>	Co-Investigator <b>No</b>	Collaborator <b>Yes</b>	Equipment <b>No</b>	Facilities <b>No</b>
Explanation : <b>Collaborators [REDACTED] and [REDACTED] from Madrid, Spain on theoretical modeling of the discotic liquid crystals.</b>				

Eh. C. (emphasis added).

The conclusion that the Government knew, when drafting the Indictment, that the Grant was *multilateral* and, consequently, exempt is inescapable. The source of the Government's understanding, in paragraph 17 of the Indictment, that researchers in Madrid, Spain, "were to do theoretical modeling work" are fields on the Grant application form that prominently display that international collaborators will be part of the project team. The body of the Grant proposal describing the scientific project also contains a section entitled "Theoretical modeling," in which the vital and ongoing role that the Spanish investigators will have on the project is described in detail,

**Theoretical modeling:** We have established a close collaboration with the theoretical group from Spain [REDACTED] and [REDACTED] in understanding the phase transitions of disks. For example, after our experimental observation of the smectics phase, DFT calculations have been performed. We were able to publish the experimental and theoretical work together.<sup>6</sup> Another example, we have motivated and worked closely with the theoretical group to clarify the effect of polydispersity (and interactions; theoretical modeling has been published, but experiments is still being performed) among the nanoplates.<sup>4, 23</sup> **This collaboration will further contribute to the progress of this project.** We plan to establish models for the liquid crystal transitions (I-N-N\*-TGB-S, I-S transitions; possible I-N-S tri-critical point, S-C and I-C transitions) observed and to calculate the phase transition kinetics.

Ex. D (emphasis added). As highlighted, Prof. Cheng explains in this section that “we have established a close collaboration with the theoretical group from Spain in understanding the phase transitions of disks.... This collaboration will further contribute to the progress of this project.” *Id.*

A few pages prior, Prof. Cheng made clear that the Spanish collaborators are integral parts of the “[t]he proposed project team,” stating

### 3. The proposed project team

The PI has extensive experience in colloidal science. He participated in the NASA-sponsored Space Shuttle experiments, the Physics of Hard Spheres (PHASE<sup>40</sup>), and the Colloids Disorder-Order Transition-second flight (CDOT-2<sup>41</sup>) with [REDACTED] and [REDACTED] during his PhD study and one-year postdoc at Princeton. He investigated the phase behavior, crystallization kinetics, and rheology of concentrated colloidal suspensions. Specifically, the experiments revealed the long-range interaction between growing crystallites (PHASE)<sup>38, 39</sup>, and the dendritic growth instability of colloidal crystal growth (PHASE<sup>38</sup> and CDOT-2<sup>36</sup>). He developed the temperature gradient method for controlling nucleation and growth of colloidal hard sphere crystals<sup>24</sup>. He is now an associate professor at the Chemical Engineering of TAMU.

The project will directly support one postdoc (for the first 9 months to start the project) and two graduate students continuously work on the project, all three to be recruited. A few undergraduate students will also work with this project through REU and honor research programs. The PI will keep fruitful collaboration with two theoreticians from Spain, [REDACTED] and [REDACTED]<sup>6, 23</sup>. Please see their support letter.

Ex. E (emphasis added).

The “support letters,” to which the foregoing section of the Grant refers, establishes that the work of the international collaborators was not an incidental, belatedly added aspect of the scientific project NASA ultimately funded. As they wrote:



To whom it may concern

Madrid, 6 April 2013

We would to express our support for the research project proposed by Prof. Z. D. Cheng, entitled "Liquid Crystals of Nanoplates". We have been working with Prof. Cheng and his group for the last few years in an effort to understand the phase behaviour of suspensions made of colloidal platelets, in particular the effect of particle size polydispersity on the isotropic-to-nematic transition and also on the formation of the smectic phase [D. Z. Sue et al., Phys. Rev. E **80**, 041704 (2009)]. This is a fruitful collaboration where the experimental side and state-of-the-art theory are confronted to produce useful understanding of these suspensions. We plan to continue this collaboration and apply our density-functional theory to understand experimental data provided by Prof. Cheng regarding the formation of smectic and columnar phases, the interplay between these two phases as size polydispersity is varied, the complete phase diagram, chiral discotic phases possibly including twist-grain-boundaries, and finally the kinetic aspects of the phase transitions and the equilibrium gels.

[REDACTED]  
[REDACTED]  
Universidad Carlos III de Madrid  
Leganés, Madrid, Spain  
[REDACTED]

[REDACTED]  
[REDACTED]  
Universidad Autónoma de Madrid  
Madrid, Spain  
[REDACTED]

Ex. F (emphasis added). The announcement in the letter that "[t]his is a fruitful collaboration... We plan to continue this collaboration," confirms that Prof. Cheng and the Spanish researchers have come an agreement to collaborate on the NASA project based on their effective past scientific collaboration on similar scientific endeavors. The description of the Spanish researchers' role in the NASA demonstrates that they will provide essential ongoing scientific contributions, including

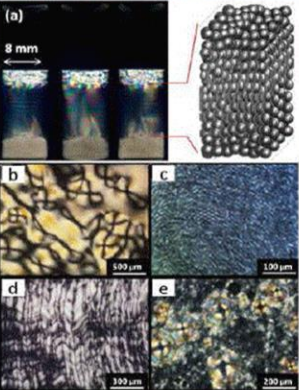
providing the theoretical framework modeling work to analyze and understand the experimental data, and to help design of the experiments and applying to future research directions.

Prof. Cheng's repeated disclosure of the two Spanish professors's titles and positions in the Grant proposal established international collaboration respectively with the mathematics and physics departments of two public Universities in Spain. Ex. A-E. But this was not the full extent of NASA sanctioned international collaboration on the Grant. NASA later touted that Prof. Cheng was leading a multilateral project in which Russian researchers were also involved. A 2016 NASA presentation at the University of Louisville entitled "Fluid Studies on the International Space Station," advertised that that Prof. Cheng was the Principle Investigator ("PI"), leading a team of international collaborators who were listed:

## Liquid Crystals EXHIBIT G

### Liquid Crystal of Nanoplates (LCN) - 2020

- Will investigate the dynamics of phase transitions of discotic colloids in microgravity environment to better understand the structures/properties of colloidal disks.
- Novel colloidal self-assembly structures including the chiral nematics, smectics, the twist grain boundary phase, and the equilibrium gel or empty liquid state, contribute to develop the frontier of complex fluids and soft matter.
- The understanding of the structure and properties of colloidal disks are important to soil science and space exploration (e.g., Mars), to the fundamental investigation of discotic liquid crystals, as well as various industries, including oil recovery, the delivery of pharmaceuticals, nutrition and cosmetics.
- LCN will utilize majority of OASIS flight hardware in the MSG. Design modifications are needed to current Optics Assembly and Bubble Chamber Enclosure. Up to 5 interchangeable crystal growing modules with built including Electric Field, Temperature gradient, and Temperature control.




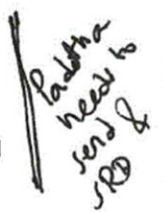
(a) Monolayer suspension under cross polarized light viewed from different angles.

*Images of thin layers of the liquid crystal phases between a pair of cross polarizers (b) typical Schlieren pattern for N, (c) the square grid pattern for TGB, (d) the zigzag texture for Sc\*, (e) focal conic pattern for S.*

**PI:** Prof. Zhengdong Cheng, Texas A&M

**Collaborators:** [REDACTED], Landau Institute of Theoretical Physics, Russian Academy of Sciences, [REDACTED] Institute of Solid State Physics Russian Academy of Sciences, [REDACTED], Universidad Carlos III de Madrid, Leganés, Madrid, Spain, [REDACTED], Universidad Autónoma de Madrid, Madrid, Spain.

Motil, Brian J., “Fluid Studies on the International Space Station” NASA Glenn Research Center (November 9, 2016) at p. 27, (Attached as Ex. G) (emphasis added).<sup>15</sup> As demonstrated, the collaboration included not only the two professors in Spain, but also two professors from the Russian Academy of Sciences, one from the Institute of Solid State Physics and another from the Landau Institute of Theoretical Physics. *Id.* All of these individuals were also to be included as signatories as Scientific Investigators on Liquid Crystals of Nanoplates Science Related Document (LCN SRD).

LCN SRD		Texas A&M University	
<u>SCIENCE REQUIREMENTS DOCUMENT (SRD)</u>			
<b>SIGNATURE PAGE</b>			
<b>Liquid Crystal Nanoplates (LCN)</b>			
Professor Zhengdong Cheng Principal Investigator TAMU		Signature	Date
<u>International Collaborator</u>			
Professor [REDACTED] Co-Investigator Universidad Carlos III de Madrid		Signature	Date
Professor [REDACTED] Co-Investigator Universidad Autónoma de Madrid		Signature	Date
Professor [REDACTED] Co-Investigator Landau Institute		Signature	Date
Professor [REDACTED] Co-Investigator Landau Institute		Signature	Date

<sup>15</sup>Published at <https://ntrs.nasa.gov/citations/20170007274> (last viewed November 3, 2021).



See Ex. H (emphasis added).

The Government was on notice that the scientific project the Grant funded was, from the start and throughout its execution, a *multilateral* endeavor involving an international team of researchers. As such, a prosecution predicated on violations of NASA's China Funding Restriction could not legitimately be brought according to the plain text of the statute, the OLC opinion, or NASA's own guidance, because it never involved *bilateral* activity with China.

**E. This Court must Take Statements in the Indictment Establishing the Multilateral Nature of Prof. Cheng's work as True and Dismiss it, as the Criminal Conduct Alleged therein is Predicated Entirely on Violations of NASA's Funding Restriction on Bilateral projects with China.**

**1. Count One Should be Dismissed because, as Evident from the Indictment, Government Functions were Not Disrupted by a Scheme to Obtain Funding for a Bilateral Project with China.**

Paragraph 55 of the Indictment states that Cheng conspired "to defraud the United States." The objective or purpose of the conspiracy, as set forth in Count One, was that of "impeding, impairing, obstructing, and defeating the lawful governmental functions of NASA." Dkt. 1 at ¶55. The governmental function that the Government alleges Cheng impeded was the lawful funding of NASA scientific projects. According to Count One, this objective was achieved through Cheng's omission of his affiliations with Chinese entities, which caused NASA to provide funding to TAMU for a *bilateral* scientific project with China or Chinese businesses in violation of NASA's China funding Restriction. *Id.*

However, it is evident from the face of the Indictment that TAMU submitted a Grant that did not violate NASA's Funding Restriction. According to the Indictment, Prof. Cheng approved a Grant proposal based on information he provided TAMU approximately six days prior to submission to NASA that identified the international collaborators in Madrid, Spain, and described their essential contribution to the scientific project for which TAMU was seeking funding. Dkt. 1

at ¶ 17. Prof. Cheng therefore supplied TAMU and NASA with a proposal using international collaborators in virtue of which NASA's Funding Restriction did **not** apply. Indeed, Prof. Cheng's enlistment of international collaborators to perform scientific tasks essential to experimental design caused the Grant to be fundable despite alleged involvement of China and Chinese corporations.

The Indictment indicates on its face that Prof. Cheng designed a project and provided TAMU information that permitted NASA to fund the Grant in full compliance with the very law that the Government erroneously alleges Prof. Cheng caused NASA to violate. Far from impeding lawful governmental functions in violation of 18 U.S.C. § 371, Prof. Cheng, as is clear from the Indictment itself, took measures that NASA advises ROSES researchers to take to ensure that their NASA funded projects can lawfully involve collaboration with China and Chinese corporations. Count One of the Indictment should therefore be dismissed.

**2. Face of the Indictment Shows that Cheng did not Devise a Wire Fraud Scheme to Defraud the United States as alleged in Counts 2-8.**

There is no allegation that the invoices identified in Counts 2-8 resulted in overbilling. Nor does the Government allege the bills were for phantom goods or services or were for services of lesser value or of a different nature than NASA authorized or anticipated. NASA received the benefit of Prof. Cheng's services, as did TAMU.

As with Count One, wire fraud Counts 2-8 depend on the theory that Cheng devised a scheme to procure payments from NASA, using wire transmissions, for scientific work that NASA could not fund by virtue of the application of NASA's China Funding Restriction. Dkt. 1 at ¶ 57. There is no other fraud alleged in the Indictment. However, Prof. Cheng did not "devise and intend to devise a scheme to defraud NASA" out of money that the NASA China Funding Restriction prohibited because of his China affiliations. *Id.* Instead, in accordance with the guidance that

NASA gives ROSES researchers, Prof. Cheng designed a multilateral scientific project, using international collaborators based in Madrid, Spain, that permitted NASA to provide funding despite any alleged collaboration with China or Chinese researchers and corporations.

As is evident from the Indictment, none of the bills the Government complains violated 18 U.S.C. § 1343 were unpayable because Cheng caused TAMU to fall out of compliance with NASA's China Funding Restriction. The restriction never applied to the Grant. Thus, no payment was illegally made or received in virtue of a wire fraud scheme to get around NASA's China Funding Restriction, as alleged in the Indictment. Counts 2-8 must be dismissed.

**3. Because Indictment Establishes that Prof. Cheng's Grant Proposal Ensured Compliance With NASA's China Funding Restriction, Counts 9 -17 Must Be Dismissed.**

Prof. Cheng did not make statements directly to NASA. Consequently, the Government alleges, as the basis of each False Statement Count, that "Cheng caused TAMU to falsely certify to NASA/JPL via submission of the invoices identified below that TAMU was in compliance with NASA's China Funding Restriction. Dkt. 1 at ¶60. However, for reasons stated above in relation to Count 1-9, Cheng did not cause TAMU to falsely certify compliance with NASA's Funding Restriction. Instead, Cheng's experimental design, which involved multilateral arrangements with international collaborators, ensured that NASA could pay the invoices without violating NASA's China Funding Restriction. As TAMU's compliance, and Prof. Cheng's contribution to ensuring lawful funding, is indisputable from the Indictment, this Court should order Counts 9-17 dismissed.

The conduct described in the Indictment does not violate any criminal law. As a result, the United States has failed to allege a crime in violation of any of statute and the Indictment must be dismissed with prejudice in its entirety.

### **Conclusion**

Zhengdong Cheng, Defendant, requests that this motion be granted and the Court dismiss all counts of the Indictment with prejudice.

Respectfully submitted,

**HILDER & ASSOCIATES, P.C.**

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ATTORNEYS FOR DEFENDANT

**CERTIFICATE OF SERVICE**

I hereby certify that on a true and correct copy of the above and foregoing motion was served on all counsel of record contemporaneous with filing.

/s/ Philip H. Hilder  
Philip H. Hilde

**CERTIFICATE OF CONFERENCE**

On October 29, 2021, undersigned counsel communicated with Carolyn Ferko Assistant United States Attorney, who indicated the Government is OPPOSED to this Motion.

/s/ Philip H. Hilder  
Philip H. Hilder