

# **Update on Research Misconduct Case: Purdue OIG review**

**IG Holly Adams, Inspector General  
Office of Naval Research (ONR)**

## Office of Naval Research (Purdue OIG Review)

- April 18th, 2008, ONR IG received Purdue's final report.
  - Purdue investigators concluded that Dr. Rusi Taleyarkhan committed scientific research misconduct by substantiating two of their twelve remaining allegations.
- June 12th, 2008, ONR IG chairs ONR's Science and Technology Integrity Board (STIB).
  - STIB to evaluate Purdue's investigative findings and supporting documentation, and to recommend ONR action or sanctions if appropriate.
  - STIB members requested postponement of disposition pending receipt of Purdue's working papers.
- July 16th, 2008, STIB Reviews all relevant information.
  - Determines Purdue's investigation was prompt, thorough, objective and followed the institution's usual and reasonable procedures.

**Wrong. See slide #11**

**Wrong. The STIB did not make that determination. That phrase was added as a perfunctory afterthought by Wood to make ONR's actions appear to conform to its policy: "I think you need to add the finding to paragraph 3 that the 'institution followed usual and reasonable procedures' as that is the finding that Holly must make to determine if the report is accurate, adequate and complete under Section VI of the ONR Process."**

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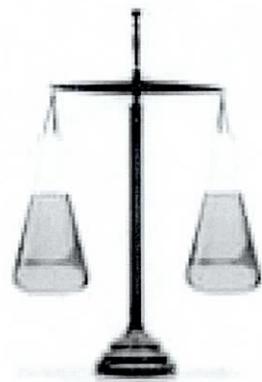
- July 17, 2008: ONR's Executive Director issued concurrence with the STIB determination and notified Purdue University.
  - With the notification, the ONR IG advised Purdue University that the case will remain open until advised that appropriate corrective action has been taken to prevent further occurrences of this nature.
    - ✓ Immediately following ONR's concurrence, Purdue officials gave Dr. Taleyarkhan a copy of the findings.

- July 22, 2008: Dr. Taleyarkhan appealed the findings of the investigative committee.
- August 27, 2008: Purdue denied Dr. Taleyarkhan's appeal.



## Office of Naval Research (Purdue OIG Review)

- August 27, 2008: Purdue University sanctioned Dr. Rusi Taleyarkhan for two substantiated acts of research misconduct:



- 1) That Taleyarkhan arranged for one of his students to appear as co-author of a paper to create the appearance that the student had witnessed the experiment reported in the paper; and

**Allegation A.2  
Xu/Butt NED paper**

- 2) That Taleyarkhan then announced that the paper was an independent confirmation of his sonofusion experiments.

**Allegation B.2  
Taleyarkhan et al.  
PRL paper**

- Purdue made the complete report available online to the public at <http://news.ons.purdue.edu/x/2008b/080718PurdueReport.pdf>



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### **Purdue press release:**

“Professor Rusi Taleyarkhan, who researches sonofusion, will remain a member of the university’s faculty but will no longer have a named Professorship, and he will not be allowed to serve as a major professor for graduate students for at least the next three years....all rights and Privileges associated with the distinction, including the allocation of discretionary resources, are hereby withdrawn.”

### **In the meantime....**

- September 4, 2008: NSF awards grant to Dr. Taleyarkhan and September 15, 2008: Grant is executed.
- September 18, 2008: ONR IG notified that Dr. Taleyarkhan was Awarded a “bubblefusion” grant by NSF. Determined that the award was not bubblefusion.

<http://www.nsf.gov/awardsearch/showAward.do?AwardNumber=0833639>

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### Ongoing Confusion about the intent of the sanction.

➤ Per NSF: "...nothing that Taleyarkhan has done violates any rule, reg or law. The only question we have here is how will Purdue manage the issue that he is restricted in supervising students as a chair or co-chair and the fact that funding for four students is contained in the budget for the proposal."



September 21 – 24: ONR IG visited Purdue at request of complainant(s), met with officials and witnesses.

• November 4, 2008: Requested clarification from Purdue concerning the NSF award and how/why it does not fall into a sanctioned category.

➤ Due date for response December 1, 2008.





# Office of Naval Research (Purdue OIG Review)

## Present Status

- Received response from Purdue concerning the NSF grant award and the intent of the sanction(s).
- ONR IG will convene a third STIB meeting to discuss Purdue's light sanctions and decided whether or not to impose additional wording to close the sanction loophole or add sanctions to Purdue's.

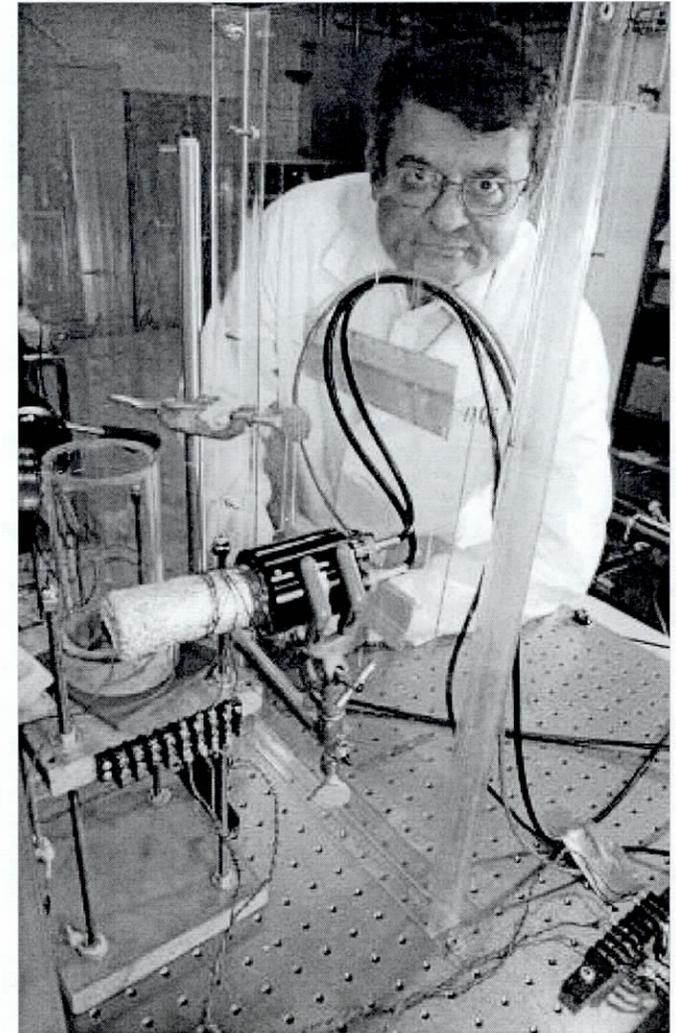


## Office of Naval Research (Purdue OIG Review)

### Background:

- January 29, 2007: ONR IG received hotline complaint.

- Dr. Lefteri Tsoukalas alleged that Purdue University failed “to fulfill its contractual obligations while handling allegations of research misconduct on its ONR-funded projects.”
- Dr. Tsoukalas was referring to allegations that he and others had made to Purdue officials against nuclear physicist and colleague, Dr. Rusi Taleyarkhan, who claims to have achieved somnulescence (otherwise known as bubblefusion).



□ Dr. Rusi Taleyarkhan

# Office of Naval Research (Purdue OIG Review)

## Background (cont'd)

- During the course of Purdue's preliminary inquiry, the list of allegations grew from six to 34.
- Purdue's inquiry committee initiated a full investigation into twelve of their 34 allegations.
- Official 180-day investigation commenced on September 1, 2007.

## Investigation



### Wrong.

- Inquiry Cmt. reviewed 34 allegations, forwarded 12 to Investigation Cmt.
- Purdue wrote: "For the sake of clarity, the Investigation Committee has aggregated and restated some of the allegations, while cross-referencing the underlying Inquiry Committee numeration of those allegations."
- Investigation Cmt. made up new allegation (A.2). Although the ID of A.2 previously existed with the Inquiry Cmt. the underlying allegation was different. The new A.2 allegation was different from the original A.2 allegation. The new A.2 allegation was invented by the Investigation Cmt.
- Investigation Cmt. retrieved a previously dismissed allegation (F3) and relabeled it as B.2
- Investigation Cmt. reorganized the 12 given to them plus the 2 made up by them and condensed them all into 9.
- Investigation Cmt. dismissed 7 of the newly reorganized allegations and charged the 2 newly created allegations.

## Office of Naval Research (Purdue OIG Review)

### Background (cont'd)

- March 29, 2007: After receiving this information from the complainant, ONR IG learned that the awardee institution was, in fact, UCLA vice Purdue

- funding was from DARPA although the grant was awarded and managed by ONR. In effect, Purdue University was, for all intents and purposes, a sub-awardee of the ONR grant awarded to UCLA.
- ONR pursued the allegations of administrative mishandling with UCLA who formally asked ONR IG to work directly with Purdue.
  - ✓ ONR directed Purdue to conduct a 90-day preliminary inquiry into six allegations of research misconduct.

**Wrong. The research referenced in Purdue allegation A.2 (Xu/Butt NED) could not have been funded by the UCLA/DARPA contract because that work had been finished before the UCLA/DARPA contract became active on March 1, 2005. (See submission date for NED paper.)**

**ONR Counsel Bryan Wood was on the right track when he questioned the jurisdiction on July 15, 2008, in an e-mail to Adams and the STIB: "I have one basic question: was Dr. Xu's experiment/work carried out under the ONR/UCLA grant or at least funded by it? After reading everything, I can't tell."**

**Wood speculated two possible conclusions, here is the second one: "the research/experiment/publishing at issue in the [scientific misconduct] findings arises from Xu's work and was not a part of ONR's intended grant or intended findings from that [DARPA/UCLA] grant/subgrant -even though funds may have been used to fund Xu's work. In that case, ONR has no jurisdiction to render a decision of any sort on the allegations/findings of misconduct in this case."**

**The work referenced in Purdue allegation B.2 was not funded by DARPA but by DoE/DHS. Funding therefore, for the two allegedly substantiated allegations was not from DARPA. Additionally, the ONR grant awarded to UCLA was for research on external neutron source experiments (as confirmed by Adams, May 2, 2008). The research referenced in B.2 (Taleyarkhan 2006) is about self-nucleated experiments.**