




PURDUE

UNIVERSITY

MEMO

TO: William R. Woodson, Provost

FROM: Nicholas J. Giordano, Hubert James Distinguished Professor and Head,
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DATE: August 21, 2008

SUBJECT: Report of Appeal Committee in the Matter of Dr. Rusi P. Taleyarkhan

I. Summary

The Appeal Committee, as described in Purdue University Executive Memorandum C-22, is charged with reviewing the record of the Investigation Committee for one or more of the following purposes:

“To determine whether the Investigation Committee’s hearing was conducted fairly ... [and] in conformity with prescribed procedures giving the accused a reasonable opportunity to prepare and present a rebuttal...”

“To determine whether each fact necessary to establish that the accused committed research misconduct was based on substantial evidence”

“To consider new evidence sufficient to alter the decision, but only where such evidence was not known to the accused or could not reasonably have been discovered by the accused at the time of deliberations”

The appeal document submitted by Dr. R. Taleyarkhan presents arguments that relate to the first two points listed above.

We have carefully considered the July 28, 2008 appeal document from Dr. Taleyarkhan. In the course of our examination, we reviewed many aspects of the Investigation Committee record. **Our unanimous conclusion is that the Investigation Committee did adhere to due process in accord with C-22 and that it did have an evidentiary basis for the conclusions that it reached. Therefore, our decision is to affirm the decision in the April 18, 2008 C-22 Investigation Committee Final Report. The Appeal is denied.**

In the following we first provide a brief history of the committees formed under C-22 to review this case, followed by an overview of the process our committee has taken in making our examination. We then respond to the points raised in pages 5-6 of the July 28, 2008 appeal.

II. History

Three other Purdue committees have previously been formed under the rules of C-22, to consider the issues of this case. In 2006 an Inquiry Committee found that there was not sufficient evidence to take this matter to a full investigation. That finding was announced to the public, but since this Inquiry Committee did not find grounds for an investigation, the full report of that committee was (according to the rules of C-22 and the wishes of Dr. Taleyarkhan) never released. We note that the full version of the 2006 Inquiry Committee report was not available to any of the subsequent committees. In 2007 a second Inquiry Committee was formed, which did find sufficient evidence to warrant an investigation. This prompted the formation of an Investigation Committee that issued its report in April, 2008. The Investigation Committee found Dr. Taleyarkhan guilty of two allegations of research misconduct, denoted as allegations A.2 and B.2. The task of the Appeal Committee was to review the work and findings of the 2008 Investigation Committee.

III. Process for Appeal Committee examination

The Appeal Committee met on four occasions to consider the evidence, and several more times to reach a decision and assemble this report. During this process we interacted with the Purdue Attorney to obtain procedural history and evidence from the Investigation Committee's record and for advice regarding C-22. We considered the verbatim record of the 2008 Investigation Committee along with documents submitted by Dr. Taleyarkhan in his appeal. This record included the report of the 2008 Investigation Committee, full transcripts of the testimony and all the evidence submitted to that committee, and extensive email communications between Dr. Taleyarkhan and his counsel and the Investigation Committee.

The formal appeal listed nine points as the "basis for appeal" (p. 5 of the appeal document). These points are given below (quoting directly from the appeal).

I. Basis for Appeal

1. A.2 and B.2 Allegations should not have even been considered as they are in non-conformance with prescribed procedures (as required in C-22).

2. Falsification and misrepresentation of key facts (from the supporting documents in official record) directly pertaining to the derivation of conclusions of research misconduct.
3. Wrongful withholding of key evidence (submitted to the 2008 Inv.C) under oath which directly bear on the issue of intent to mislead.
4. The formulation of presumptive statements (by the 2008 Inv.C) on key issues related to determining misconduct) without supporting evidence.
5. The rejection of evidence (to inform the 2008 Inv.C) which demonstrated that allegations A.2 and B.2 were already dismissed after a year long inquiry by a duly formulated Inquiry Committee (InqC) which reported no misconduct, after which Purdue University itself issued a Press Release on Feb. 7. 2007.
6. The formulation of the 2008 Inv.C was in violation of C-22. It was populated with individuals who are non-peers of Dr. Taleyarkhan despite Dr. Taleyarkhan's counsel pleading the case that Dr. Taleyarkhan and his co-authors are all predominately engineers and a majority of their publications on sonofusion were in engineering journals. Objections of counsel were dismissed without cause and finally, only one additional peer member was appointed. It is surprising that the Dean of the College of Engineering deliberately refused to appoint a single engineer to the 2008 Inv.C in relation to passing judgment on research practices followed by a member of her own College; this is in stark contrast to the 2006 Inquiry Committee where the Dean staffed with a majority of engineering peers of Dr. Taleyarkhan.
7. Falsified information was presented to the 2008 Inv.C up front (by Purdue's Associate Vice-Provost for Research) without Dr. Taleyarkhan's knowledge which was prejudicial to Dr. Taleyarkhan's case in terms of determining misconduct, and for which a series of corrective letters with supporting evidence had to be transmitted upon revelation. These letters and evidence are not referred to in the 2008 Inv.C Report.
8. Threats of punishment for not going along with the validity and Conclusions of the Inv.C Report. These threats were conveyed (from Purdue's counsel Mr. W. Kealey) to Dr. Taleyarkhan via his counsel Mr. L. Selander. Mr. Kealey, furthermore, also communicated false information to Dr. Taleyarkhan's counsel that Ms. D. Mize and Ms. Timmerman from the School of Nuclear Engineering did not wish to provide testimony in relation to Purdue's 1.31.08 to 2.2.08 Inv.C board. As such, both Mr. Kealey and Dr. Dunn should be considered as conflicted and removed from handling this Appeal. This request was made earlier to the Acting Provost Dr. Lechtenberg, but the request was summarily denied. Is this a way that Purdue treats faculty members, handles it's responsibilities for conducting fair and open investigations, and projects it's tyrannical power on to members of it's community? If left unchecked, this sort of treatment could be meted out in the future to any other faculty or staff. Besides being illegal, this can not be allowed to continue in a great institution.

9. Inadmissibility of video evidence showing Mr. A. Butt, the co-author of the paper with Dr. Xu, enthusiastically discussing his research work and accomplishments on sonofusion with Purdue's ex-Provost S. Mason during her visit to Dr. Taleyarkhan's laboratory. This video tape was produced at the time Mr. Butt accepted Dr. Xu's invitation to become co-author, and which today, is being cast as having been done under duress. The signed, sworn affidavits of Mr. Butt's fellow students at the time (Mr. J. Lapinskas and Mr. J. Webster) which support the fact that Mr. Butt was a willing, eager, and deserving co-author of Dr. Xu are also not recognized, nor were they permitted to appear to provide their testimony to the Inv.C in the 1.31.08 to 2.2.08 hearings.

The appeal also requests (p. 12) to "correct the record on other charges for which misconduct was not found." Since this request does not specifically concern the Investigation Committee's finding of research misconduct, we view this request as outside the purview of the Appeal Committee according to C-22 and do not consider it further.

All members of the Appeal Committee reviewed the body of evidence. Two members were assigned to independently review in detail each of the appeal points listed above and to present their conclusion to the Appeal Committee for questioning by the third member. Following the directions of C-22, the Appeal Committee considered closely (1) whether the principles of due process were followed, and (2) whether the evidence presented to the Investigation Committee was sufficient to justify their decisions.

Following this procedure, the Appeal Committee reached a unanimous decision on all of the appeal points.

IV. Response/conclusions concerning specific appeal points

The basis of the appeal is outlined in nine points listed on pages 5 and 6 of the July 28, 2008 Appeal. Each of the nine points presented in the appeal is summarized below followed by our conclusions for each point.

1) Appeal Point #1

This Appeal point presents two arguments:

- 1) Allegations A.2 and B.2 were not in the 2007 Inquiry Committee referral to the Investigation Committee.
- 2) Allegations A.2 and B.2 were already dismissed by the 2006 Inquiry Committee and therefore should not have been reconsidered.

The basic issues addressed by allegations A.2 and B.2 are: Did Dr. Taleyarkhan manage the publication of a paper (allegation A.2) that he later cited as evidence of independent confirmation of the sonofusion experiment (allegation B.2)?" Argument (2), that the allegations were improper because they had already been dismissed, will be discussed below in connection with appeal point #5. The next few paragraphs address argument (1).

The 2007 Inquiry Committee forwarded a total of twelve allegations to the Investigation Committee, which the Investigation Committee then “aggregated and restated” for the sake of clarity. It is our opinion that the broad issues in allegations A.2 and B.2 were identified by the 2007 Inquiry Committee and should not be considered to be “new” charges.

We also find that the February 1-3, 2008 Investigation Committee Hearings paid significant attention to questions of authorship and independence. Therefore, it appears clear that the accused had opportunity to be aware of the importance attached to these issues by the Committee. From an examination of the record, we also find that the accused had ample notice and opportunity to respond to allegations A.2 and B.2.

Finally, we note that objections to A.2 and B.2 should have been raised when the Investigation Committee focused the evidentiary hearing on the A.2 and B.2 issues – not after the Investigation Committee had already submitted its final report. In our opinion, C-22 does not prohibit the Investigative Committee from considering charges that are derived from the original charges if they choose to do so.

Conclusion

We find no reason to overturn the decisions of the 2008 Investigation Committee based on argument (1) of this appeal point. The actions referred to in (1) did not deprive Dr. Taleyarkhan of due process under C-22.

2) Appeal point #2

The appeal asserts that a factual basis to support the Inv. C’s conclusions of research misconduct did not exist. The appeal specifically disputes eight findings of fact used by the Investigation Committee as part of their basis for their findings of research misconduct.

The Appeal Committee has reviewed the specific supporting documents footnoted within all of the findings of fact used by the Investigative Committee as the basis for their conclusions of misconduct, with special attention to the documents related to the findings of fact disputed by the Appeal. We find sufficient evidentiary basis for all of the disputed findings of fact. Consequently, we conclude that the Investigation Committee had sufficient evidentiary basis to support their findings of research misconduct.

In the following we would like to make detailed observations concerning a few of the findings of fact (FF) disputed in the Appeal.

A.2 FF2: (Appeal, p. 9, Inv. C. report, p. 12)

Dr. Taleyarkhan does not dispute the facts listed in FF2; he only states that the “key” subsequent act was Dr. Xu’s – not his. This matter is the subject of FF3, not FF2. The Inv. C had evidentiary basis for FF2.

A.2 FF3: (Appeal, p. 9, Inv. C. report, p. 12)

Dr. Taleyarkhan contends that it is wrong to conclude that he controlled the decision about adding Butt as an author.

After reading the Feb 2008 testimony, Dr. Taleyarkhan’s April 7, 2008 rebuttal submission and two e-mails from Dr. Taleyarkhan on 1/26/05, we conclude that the Investigation Committee could reasonably conclude that it was “more likely than not” (the C-22 standard on p. 8 of C-22) that Dr. Taleyarkhan controlled the decision. The Investigation Committee did have evidentiary basis for FF3.

A.2 FF5: (Appeal, p. 9, Inv.C. report, p. 12)

Dr. Taleyarkhan contends that he did not ask Mr. Butt to become a co-author but only inquired if he would be interested in accepting Dr. Xu’s request to engage in due diligence leading to possible co-authorship. Dr. Taleyarkhan’s contention is directly contradicted by Adam Butt’s testimony (Feb. 08, 2008, pp. 169-170), which states that Dr. Taleyarkhan encouraged him to become a co-author of the paper because it would be good for his career. It is also contradicted by Dr. Taleyarkhan’s own e-mails to Butt on 1/26/05.

We conclude that the Investigation Committee had evidentiary basis for FF5.

B.2 FF1: (Appeal, p. 11, Inv.C. report, p. 15)

Dr. Taleyarkhan contends that this finding of fact misrepresents Dr. Xu’s postdoctoral appointment, in that it incorrectly gives the impression that Dr. Xu was appointed as a post-doc under Dr. Taleyarkhan.

The text of the finding of fact includes the following:

- that Dr. Xu deposited his thesis on March 1, 2004
- that in the same month a formal letter documents Dr. Xu’s appointment to a postdoctoral position in the School of Nuclear Engineering for “research under the direction of Dr. Taleyarkhan.”
- that Dr. Xu affirmed in his Jan. 31, 2008 affidavit that he understood himself to be “full-time under the direction of Dr. Taleyarkhan” from the beginning of his postdoctoral appointment

These statements are all well documented, and none of these specific statements appears to be under dispute. Consequently we find the committee had evidentiary basis for all of the statements incorporated into this finding of fact.

With respect to Dr. Taleyarkhan's assertion that Dr. Xu's appointment letter was signed by the Head of the School of Nuclear Engineering (NE), without cc to Dr. Taleyarkhan, and that Dr. Xu was paid under a project from Batelle/Dept. of Energy for which the Head of NE was Principal Investigator: these assertions appear to be correct and do not appear to be matters of dispute. However, it is standard procedure, for example, that official appointment letters are signed by department administrators, such as the Head. Also, Prof. Taleyarkhan's own appointment letter from the School of NE made a commitment to provide a postdoctoral position under Prof. Taleyarkhan during his start-up phase. Therefore, it is not surprising that NE would provide funds such as those from the Batelle project to support the postdoc promised to Dr. Taleyarkhan. It is reasonable to conclude that the Investigation Committee chose not to cite these points in their report because, in their judgment, these points did not substantially affect their conclusions.

We find that the Investigation Committee had evidentiary basis for all of the statements incorporated into this finding of fact.

B.2 FF6: (Appeal, p. 11, Inv.C. report, p. 20)

There is significant evidentiary basis for the Investigation Committee to conclude that Dr. Xu was inexperienced in neutron and tritium detection aspects. He may have received training in these after beginning his postdoctoral appointment, but this would have been under the supervision of Prof. Taleyarkhan to whom he reported, and as such would not be "independent." Dr. Xu's testimony to the Investigative Committee also strongly suggested that he did not have a strong experimental background in neutron and tritium detection prior to his arrival at Purdue.

Conclusion

We conclude that a factual basis existed to support the Investigation Committee's conclusion that the research misconduct specified in Allegations A.2 and B.2 occurred.

3) Appeal point #3

This appeal point refers to the withholding of "key evidence" from the Investigation Committee. This evidence apparently involves: (1) affidavits and testimony from Nuclear Eng. staff about friction within the School, (2) a videotape of Mr. Butt making a public presentation about his research, (3) affidavits from students concerning Mr. Butt, and (4) a portion of the Dec. 15, 2006 report of a prior inquiry committee. Points (2) and (3), regarding the video and affidavits from students, will be discussed below when appeal point #9 is considered. Point (4) will be discussed below when appeal point #5 is considered.

We first note that point (1) concerns affidavits and testimony that were admitted into evidence to the Investigation Committee. At issue seems to be the fact that there were some redactions made

to this evidence by the chair of the Investigation Committee. In comparing the affidavits in question (supplied by Dr. Taleyarkhan in the Appeal) with the redacted versions, we conclude that the redactions were appropriate to protect confidentiality of either the promotion and tenure process at Purdue, of student-related issues, or of persons not giving testimony, and that the redacted versions adequately conveyed the existence of friction within the School.

Conclusion

The actions of the chair of the Investigation Committee with regards to testimony and affidavits from Nuclear Engineering staff and students were reasonable and did not deny Dr. Taleyarkhan his rights of due process under C-22.

4) Appeal point #4

We did not find in the appeal package a specific list of the presumptive statements, an identification of the key issues they bore upon, or a discussion of how they affected the Investigation Committee's conclusions. We surmise that appeal point #4 may refer to the following statement: "there is absolutely no evidence to support this presumptive conclusion" [that Dr. Taleyarkhan made the ultimate decision to add Mr. Butt as coauthor] (Appeal, p. 9, referring to Inv. C. report, p.13). If this is the case, appeal point #4 is similar to appeal point #2 and was covered in our response to point #2 above.

Conclusion

We were unable to find evidence to support this basis for appeal.

5) Appeal point #5

This point contends that the allegations for which the Investigation Committee found research misconduct were previously dismissed by the first C-22 Inquiry Committee which "reported no misconduct."

According to C-22 an Inquiry Committee is tasked with determining whether or not a full investigation is "warranted" based on the evidence received. It does not itself perform a full investigation and is not charged with determining whether misconduct has or has not actually occurred. Therefore, appeal point five's characterization of the first C-22 Inquiry Committee as having "reported no misconduct" is incorrect.

Press release characterizations of prior activities under C-22 are not themselves part of the Investigation Committee verbatim record and are therefore outside the purview of the Appeal Committee.

According to C-22, since the first Inquiry Committee determined that a full investigation of the allegations presented to it was not warranted based on the evidence received at that time, the

report of the first Inquiry Committee was delivered only to the accused and appropriate University officials. C-22 also stipulates that the report should be “securely stored” - i.e., it is confidential and is not available for review unless made public by the accused. Therefore, under C-22 rules, the first Inquiry Committee report was simply not available to the 2007 Investigation Committee.

In Dr. Taleyarkhan’s April 2008 rebuttal to the Investigation Committee’s draft report, he sought to include selected portions of the 2006 Inquiry Committee report (without identifying the inclusion on p. 43 of his rebuttal as a selectively edited version of the 2006 Inq. C report). The chairman of the Investigation Committee struck this page as detailed in an April 9, 2008 e-mail from Mr. Kealey. In our opinion, the Investigation Committee chairman’s decision to not admit evidence which was selectively edited and not identified as such, and submitted at a late stage of the investigation, should not be considered to be a violation of due process.

In Dr. Taleyarkhan’s July 28, 2008 Appeal, Dr. Taleyarkhan states (p. 12):

The excerpted evidence pertaining to Purdue’s own 12/15/2006 C-22 Inq. C final report ... was surprisingly disallowed for consideration by the 2008 Inv. C. The reason given by Purdue’s counsel was that the excerpt was considered “doctored” and therefore, unacceptable for the record. *This already existing formal Purdue University C-22 document signed by Dr. P. Dunn ... is attached without excerpting.* [italics added]

The appeal package (exhibit 1, p. 51) shows a one page letter, on letterhead, dated Dec. 15, 2006, and signed by Dr. Dunn, that appears to represent the 12/15/2006 Inquiry Committee final report. However, consultation with university counsel reveals that this one page letter is again selectively excerpted from a substantially longer document. Again the excerpted letter is not identified as such.

Hence the express representation in the Appeal that the 12/15/2006 Inquiry Committee final report is now “attached without excerpting” is demonstrably false. This appears to be a deliberate attempt to mislead the Appeal Committee by misrepresenting the 12/15/2006 Inquiry Committee final report, the full contents of which are held confidential at Dr. Taleyarkhan’s discretion. We are deeply disappointed by Dr. Taleyarkhan’s lack of candor and violation of trust in this matter.

Conclusion

We find no basis to support the appeal that an excerpted version of the 2006 Inquiry Committee should have been submitted to the 2007 Investigation Committee.

6) Appeal point #6

Paragraph 6 on p. 3 of C-22 states: “The committee shall include at least one member who is a peer of the accused.” The committee included one engineer and several individuals with technical expertise in nuclear physics. We note that Dr. Telyarkhan published in the physics as well as engineering literature. Two committee members hold Professor rank at Purdue. All the committee members have distinguished academic records in technical fields.

Conclusion

The Investigation Committee did include peers of Dr. Teleyarkhan, in accord with C-22.

7) Appeal point #7

This appeal appoint appears to be in reference to an exchange of information between one of the members of the Investigation Committee and Dr. P. Dunn in his role of providing administrative support to the committee. In November, 2007, the committee member requested several specific pieces of information from Dr. Dunn who provided a response the following day. Dr. Dunn’s response was evidently sent also to Dr. Taleyarkhan, who provided his own response approximately one month later, in December, 2007. After reviewing the contents of the memos of both Dr. Dunn and Dr. Taleyarkhan, we do not believe that there was an attempt by Dr. Dunn to falsify information, or to provide misleading information to the committee. It is also our opinion that Dr. Taleyarkhan had ample and timely notice and opportunity to furnish rebuttal information to the committee.

Conclusion

We find no basis to support this appeal point.

8) Appeal point #8

The Appeal presents no evidence that such threats occurred, and it does not explain how such threats, if they did occur, influenced the conclusions of the Investigation Committee.

Conclusion

We find no evidence to support this basis for appeal.

9) Appeal point #9

C-22 specifically states that acceptance of evidence for consideration by the committee is at the “discretion of the Chairperson.”

Based on the description of the video in the Appeal Package, we do not regard this piece of evidence as critical to the authorship and independence issues for which research misconduct was found. We note, however, that the videotape in question was in fact admitted as evidence on February 28, 2008.

We also reviewed the affidavits from Mr. Butt’s fellow students as supplied in the appeal package. These affidavits present hearsay and speculation but no clear evidence that “Butt was likely compromised and forced to make claims contrary to Dr. Taleyarkhan’s interests...” as stated in the appeal. According to the appeal, the chairman of the Investigation Committee considered these affidavits to be “insufficiently probative for inclusion in the record.” After reviewing these affidavits as presented in the appeal, we agree with the chairman’s assessment.

Conclusion

Dr. Taleyarkhan’s rights to due process under C-22 were not violated by the Investigation Committee chairman’s decisions regarding the videotape and affidavits from Mr. Butt’s fellow students.