The Department of Health and Human Services

DEPARTMENTAL APPEALS BOARD

Civil Remedies Division

| In the case of: |) | |
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| |) | |
| Office of Research Integrity, |) | Date: January 12, 2010 |
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| |) | |
| Scott J. Brodie, |) | Docket No. C-09-04 |
| |) | Decision No. CR2056 |
| |) | |
| Respondent. |) | |
| |) | |

RECOMMENDED DECISION GRANTING SUMMARY DISPOSITION TO THE OFFICE OF RESEARCH INTEGRITY

I recommend that the Assistant Secretary for Health grant summary disposition to the Office of Research Integrity (ORI) and against Respondent, Scott J. Brodie. The undisputed material facts establish that Respondent committed research misconduct on multiple occasions. The extent of misconduct engaged in by Respondent amply justifies the remedy sought by ORI, a debarment from federal contracts for a period of seven years.

I. Background

Respondent is a molecular pathologist and board-certified anatomic pathologist with a background in virology, nucleic acid chemistry, polymerase chain reaction (PCR) and *in situ* hybridization analyses. During the time frame that is relevant to this case Respondent was a research assistant professor in the Department of Laboratory Medicine at the University of Washington (UW) and was director of the UW Retrovirus Pathogenesis and Molecular Virology Laboratories.

On September 17, 2008, ORI filed a charge letter in which it asserted 15 findings of research misconduct by Respondent. These findings derive from an investigation conducted by UW in 2002 and the university's 2003 findings of research misconduct by Respondent. ORI asserted multiple instances during a period of time extending from

1999 to about 2002 in which Respondent allegedly submitted or presented materials in the form of grant applications, presentations, or articles submitted for publication that contained images and information that Respondent had knowingly and intentionally falsified or fabricated. Respondent requested a hearing on October 16, 2008. ORI then moved to dismiss the hearing request, arguing that Respondent had not offered any facts to deny or meaningfully defend against the allegations of research misconduct.

On January 29, 2009, I issued a ruling in which I granted in part and denied in part ORI's motion to dismiss (January 29 ruling). First, I held that Respondent did not raise triable issues challenging ORI's findings that the publications, presentations, grant applications, and other materials published by Respondent and cited in the charge letter contained materially false statements, images, and data. I held that nowhere in his very lengthy hearing request did Respondent come to grips with ORI's precise allegations that certain figures, images, or other information published or submitted by Respondent were materially false. January 29 ruling at 6. Rather, Respondent had resorted to a formula for denying ORI's allegations consisting of: a general or provisional denial of each allegation; complaints that he lacked sufficient information to admit or deny the truth of the allegation and that he had been denied access to the administrative record of the investigation that led up to the issuance of the charge letter; assertions that others had contravened regulations and policy statements concerning maintenance of, or access to, records; complaints about the quality of ORI's investigation; and assertions of facts that were plainly not material to the allegations made by ORI. I held that these assertions by Respondent were either unresponsive to the allegations in the charge letter or did not comprise valid defenses to the allegations. I held also that Respondent at times conceded having made errors in his submissions but asserted that the false information was either harmless or not material to the purpose of the document which contained it. However, Respondent had provided no explanation as to why such false information was harmless or not material.

Second, I held that Respondent had raised triable issues concerning his culpability for the false information and the reasonableness of the seven-year debarment proposed by ORI. I cautioned the parties, however, that these issues would not be heard and decided in a vacuum. I observed that the quantity and nature of false statements in documents and presentations which Respondent authored, published, or gave was powerful prima facie proof from which I could infer that Respondent deliberately and willfully engaged in a pattern of research misconduct. January 29 ruling at 24.

The parties proceeded to conduct discovery and file pre-hearing exchanges of proposed evidence pursuant to the initial pre-hearing order that I issued in this case establishing a schedule for such events. I scheduled a hearing to take place in Washington, D.C., on February 11, 2010. However, ORI then moved for summary disposition and Respondent opposed the motion.

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With its pre-hearing exchange ORI submitted 38 proposed exhibits which it identified as ORI Exs. 1-2, 5-7, 10, 20-24, 27, 30.1, 35, 43-62, 66-68, 70. With his exchange Respondent submitted 11 proposed exhibits which he identified as R. Exs. 3-9, 11-14. Each party filed objections to my receiving certain of the opposing party's exhibits into the record. On November 20, 2009, I issued rulings on the parties' objections. Subsequently, Respondent asked that I reconsider certain of my rulings in which I excluded elements of some of Respondent's exhibits. Additionally, he offered the written direct testimony of two new witnesses, whose testimony he had not proffered previously and pursuant to the schedule I established for filing pre-hearing exchanges of evidence, as well as additional exhibits that he had not offered pursuant to that schedule.

I receive into the record all of the exhibits from ORI and Respondent which I did not exclude in my November 20, 2009 ruling. I deny Respondent's motion that I reconsider my rulings as to exclusion of elements of his exhibits. I also deny Respondent's motion that I add the testimony of additional witnesses and new exhibits to his case. Respondent has made no showing of good cause for filing this evidence belatedly and, in fact, months after the deadline that I imposed for exchanges of proposed evidence.²

II. Issues, findings of fact and conclusions of law

A. Issues

The issues raised by ORI's charge letter are whether:

1. Respondent published, caused to be published, or attempted to publish information in journal articles, presentations, research grant applications or in other documents, consisting of images, diagrams, charts, or other statements that were materially false;

¹ ORI originally submitted 70 exhibits, but it later revised its exhibit list. Respondent originally submitted 13 exhibits, but he subsequently removed three exhibits and added one new exhibit to his exhibit list.

² While Respondent refers to "Exhibit 15" in his response, he has not submitted such an exhibit. He claims this exhibit has "only recently become available." Opposing brief at 1-5, 23. From Respondent's description, the exhibit – had it been submitted – would have contained policies and procedures for administering current imaging standards, the declarations of Elizabeth Glazatcheff and Richard Gademan and a letter from Assistant Attorney General Karin L. Nyrop to Respondent's former counsel. Respondent actually submitted the declarations of Ms. Glazatcheff and Mr. Gademan as Exhibit 13, at 42-45.

- 2. Respondent knowingly and intentionally published materially false or fabricated information; and
- 3. The remedy proposed by ORI, a seven-year debarment, is reasonable.

B. Findings of fact and conclusions of law

I make findings of fact and conclusions of law (Findings) to support my recommended decision. I set forth each Finding below as a separate heading.

1. Respondent published, caused to be published, or attempted to publish information in journal articles, grant applications, presentations, and other documents that was material to the research he was describing and which was false or fabricated.

In my January 29 ruling I found that Respondent published, caused to be published, or attempted to publish information in journal articles, grant applications, presentations, and other documents that was materially false or fabricated. The ruling specifically addressed each of the 15 findings of scientific misconduct that were made in the charge letter and I sustained ORI's allegations that Respondent had published, caused to be published, or attempted to publish each of the documents or presentations containing fabricated and falsified data cited in the charge letter. I found that the false or fabricated information was used by Respondent to support the premises he was advocating and, so, it was material. I incorporate the January 29 ruling into this Finding.

2. Summary disposition is appropriate in a case involving allegations of research misconduct where there are no disputed issues of material fact and where the moving party is entitled to a favorable decision as a matter of law.

Summary disposition is an efficiency promoting device that is used by courts and administrative agencies to decide cases in the circumstance where no valid purpose would be served by conducting a full in-person hearing. The regulations governing hearings into alleged research misconduct neither specifically provide for nor do they prohibit the issuance of summary disposition. *See* 42 C.F.R. Part 93. I find nothing in the Part 93 regulations that would preclude the issuance of summary disposition under appropriate circumstances. Not only is summary disposition under appropriate circumstances consistent with the requirements of due process built into the Part 93 regulations but it is consistent also with established practice in administrative hearings held in this Department. Administrative law judges of this Department have traditionally issued summary disposition in cases involving other hearing and appeals authority such as the authority to hear and decide cases involving the Centers for Medicare & Medicaid Services at 42 C.F.R. Part 498 and the authority to hear and decide cases involving the

Inspector General at 42 C.F.R. Parts 1003 and 1005 – which, like Part 93, do not specifically provide for summary disposition – where doing so comports with the requirements of due process as is described at Federal Rules of Civil Procedure Rule 56.

It is appropriate to issue summary disposition when there are no issues of material fact that are in dispute and where the moving party is entitled to a favorable decision as a matter of law. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *Celotex Corp. v. Catrett*, 477 U.S. 317, 322 (1986); *Matsushita Elec. Indus. Co. v. Zenith Radio*, 475 U.S. 574, 587 (1986). In such a circumstance holding an evidentiary hearing would be pointless because there is nothing more that can be established by a hearing that has not been established already by the undisputed material facts.

What is a material fact? It is any fact the existence of which bears on the outcome of a case. Put simply, if the presence or absence of a fact would potentially affect the outcome of a case, then it is material. Axiomatically, facts which are not material are irrelevant. A party opposing a motion for summary disposition may not defeat the motion by alleging facts which are not relevant to the outcome of the case.

A trier of fact should not grant summary disposition in any case where there is a genuine dispute as to a material fact. In such a circumstance, a hearing would be necessary in order that the parties may present their evidence, the trier of fact may weigh it and, in doing so, resolve credibility issues. In determining whether a genuine issue of material fact exists the trier of fact must view all facts and reasonable inferences drawn from those facts in the light most favorable to the party opposing summary disposition. *Matsushita*, 475 U.S. at 587. However, a fact dispute that will defeat a motion for summary disposition does not exist unless the party opposing the motion can show that the asserted dispute comprises a genuine dispute over a material fact.

A genuine dispute over a material fact occurs when a party opposing a motion supports its version of a material fact with sufficiently admissible evidence so that a reasonable trier of fact could resolve the dispute in favor of the opposing party. *Anderson*, 477 U.S. at 247-48. The burden shifts to the non-moving party to show that there is a genuine dispute as to material facts whenever the party moving for summary disposition offers facts that are on their face sufficient to establish that party's allegations. The opposing party does *not* meet that burden simply by denying the facts offered by the moving party. Rather, it must furnish admissible evidence that challenges the material facts alleged by the moving party.

Not only are unsubstantiated denials of material facts insufficient to defeat a motion for summary disposition but so also are allegations that are fanciful, or which are supported by such minimal evidence as to be beyond any reasonable probability of existence. The party opposing a motion for summary disposition cannot manufacture genuine issues of material fact with "some metaphysical doubt as to the material facts," *Matsushita*, 475

U.S. at 586, or with "conclusory allegations," "unsubstantiated assertions," "or by only a 'scintilla' of evidence." *Little v. Liquid Air Corp.*, 37 F.3d 1069, 1075 (5th Cir. 1994).

3. Summary disposition is appropriate in this case because the undisputed material facts establish that Respondent knowingly and intentionally published or attempted to publish information that was false or fabricated and which was material to the research he published or attempted to publish.

The *only* reasonable inference that I can draw from the undisputed facts of this case is that Respondent knowingly and intentionally, and on a massive scale, published or attempted to publish false or fabricated information that was material to the research that he performed. As I discuss above and in my January 29 ruling, on numerous occasions Respondent offered articles for publication, made grant applications, or delivered presentations that were rife with false images and information. The falsified content of Respondent's offerings was material to the subject matter and not incidental.

Nor was it the product of excusable neglect or honest error. ORI has come forward with overwhelming and undisputed evidence that Respondent knowingly and intentionally published or attempted to publish falsified or fabricated information. In summary, the facts offered by ORI establish that Respondent submitted false information on a massive scale. False and/or fabricated images, graphs, and data appear in numerous places in grant applications made by Respondent or with his collaboration, in articles that Respondent submitted for publication, and in PowerPoint presentations. The sheer volume of false information in these documents and presentations is evidence that inescapably leads to the conclusion that Respondent submitted false information either knowing that it was false or with reckless indifference to the truth of what he submitted.

I do not find that facts and arguments offered by Respondent in opposition to ORI's motion call into legitimate dispute the facts that I have just discussed. What Respondent says in his defense is irrelevant or simply incorrect.

Respondent contends repeatedly that computers at the UW laboratory which he directed were shared by several individuals. The inference he would have me draw from that is that altered or fabricated information was possibly created by individuals other than Respondent. I find the assertions that Respondent shared computers with other individuals and that others may have created the false images and data on which ORI bases its allegations to be irrelevant because even if these assertions are true they do not relieve Respondent of the responsibility for assuring that what he published or attempted to publish was true and accurate.

Much of the false information on which ORI bases its case was found on a computer that was sequestered at Respondent's home when UW conducted its investigation. ORI asserts that this is irrefutable proof that Respondent personally altered the images and data that are at issue here. It certainly is strong prima facie evidence of that contention. However, I do not base my decision in this case on a finding that Respondent personally created the welter of false information that was found on his home computer.

Respondent has thrown up a blizzard of assertions concerning: the date when he first began using the computer; whether it was shared by other individuals; and when the false data was put on the computer. Many of these assertions are implausible or contradictory. For example, Respondent asserts, implausibly, that all of the false data was added to the computer at his home after the publication of the various articles or submission of the various grant applications that are at issue here. However, these assertions by Respondent contain at least a few issues of fact which would best be resolved at an in person hearing if it were necessary to resolve them at all. But, and as I explain in this decision, Respondent is liable for research misconduct *even if* the undisputed material facts fail to show that he personally created the false information on his home computer.

The evidence of false information that UW and ORI obtained from various computers is not rebutted by the possibility that these computers, including even Respondent's home computer, may have been used at times by individuals other than Respondent. Nor is it rebutted by the possibility that others besides Respondent may actually have created the false information. Respondent was the person who published the false information. Respondent bore responsibility for assuring that his published information was what he purported it to be. He cannot now hide behind the assertion that others may have been responsible for creating the false and fabricated information that he published.

Reduced to its essence, Respondent's primary argument in opposing ORI's motion is that:

the images ORI has attributed solely to him, were in fact not created by him and . . . he was not in a position of authority to control what others produced or distributed, nor did he have knowledge of individuals that may have inappropriately produced images that were then provided to him and to others.

Opposing brief at 7.

This argument is wrong as a matter of law. Even if others *might have* created the false images and data, that is not enough to create a fact dispute that necessitates further proceedings. As a matter of law, Respondent is equally liable whether he personally and consciously published information that he knew was falsified or fabricated or whether he published it not caring whether or not it was true.

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Although Respondent's repeated assertions that someone other than him must have made the alterations and false images that were present on computers are, at best, tenuous, I have given him the benefit of all doubt and evaluated this case on the assumption that Respondent personally created *none* of the false images and data. Even that possibility does not change the outcome of this case.

The regulation that was in effect in 2002 defined "Misconduct or Misconduct in Science" to mean:

fabrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data.

42 C.F.R. § 50.102 (2002). On its face the regulation separates willful misconduct from simple negligence or honest error. However, it does not describe in detail what would comprise willful misconduct.³ The issue of intent was addressed by the Departmental Appeals Board in decisions that applied the regulation, most notably in *Dr. Rameshwar K. Sharma*, DAB No. 1431 (1993). In *Sharma*, the Board held that scientific misconduct required proof of something beyond ordinary negligence. At issue there was a single typographical error in a document authored by Dr. Sharma. In finding Dr. Sharma not culpable the Board concluded that simple negligence was not by itself sufficient to establish misconduct. Among other things, the Board concluded that Dr. Sharma could not have been more than negligent because the error was a single non-consequential error and not part of a pattern of errors. The Board drew a distinction between honest error and statements that are made with the knowledge that they would mislead the reader. The latter type of statement, as opposed to mere negligence, constituted misconduct.

I conclude that "intentionally" publishing false or fabricated information subsumes both the circumstance where the scientist publishes information that he or she knows is false and the circumstance where the scientist publishes information with indifference to its truth. The scientist who publishes with indifference to the truth of what he or she publishes knows that the published information could mislead the reader, and so, such conduct is research misconduct.

³ The current definition of research misconduct includes a requirement that a finding of misconduct "be committed intentionally, knowingly, or recklessly. . . ." 42 C.F.R. § 93.104(b). I do not view this more explicitly stated standard as comprising a departure from the previous definition of misconduct so much as a clarification of it. It is consistent with what has traditionally been held to be intentional misconduct.

There are only two reasonable inferences that I can draw from Respondent's systematic publication of false or fabricated information. Either he published information that he knew to be false or fabricated, or he published it with indifference to the truth of its contents. The sheer volume and pattern of false items that Respondent published or attempted to publish lead inescapably to my conclusion that Respondent had contempt for the truth.

I might rule differently if this case involved only one or a handful of false items. I might be able to infer from evidence of only a very few false items that Respondent's submission and publication of them was arguably simple negligence on his part. And, such an inference would require that I conclude that there is a disputed issue of material fact about Respondent's intent.

But, here, the evidence offered by ORI is overwhelming and unrebutted that Respondent submitted and published false images and data on a wholesale basis. A finding of ordinary negligence is barred here by the mass and pattern of Respondent's false statements even if I were to conclude that there is a dispute as to whether Respondent personally created the altered and falsified images and data that he published.

A possibility of ordinary negligence is also precluded absolutely by the *nature* of many of the false statements and images that are at issue here. Changes in contrast of an image, or enhancement of an image for purposes of clarification may not constitute misconduct. But, mislabeling an image in a way that changes fundamentally the description and meaning of its contents, adding data to an image, or changing the information contained in graphs, are not mere enhancements for purposes of clarification. Changes like that clearly are intended to communicate a whole different meaning to the reader or reviewer than that which was depicted originally. Such alterations and changes, when made over and over again, as is the case here, cannot be the consequence of simple human error.

Respondent asserts that he "was always of the belief that the images in ORI's charges were 'reflective of the actual results obtained from the experiments' and he had no reason to suspect the images he provided were inappropriately manipulated." Opposing brief at 2. But, Respondent offers no evidence to substantiate this assertion. It is an unadorned denial of the allegations made by ORI. That is insufficient to create a genuine dispute as to the material facts.

Moreover, and as I have discussed, the assertion is utterly implausible on its face in light of the volume of undisputed evidence produced by ORI. This is not a case of a single error in data or one or even a few mislabeled images. The sheer mass of false and fabricated information that Respondent either published or attempted to publish overwhelms Respondent's unsubstantiated contention that he believed that what he was publishing was his honest research results. Indeed, Respondent has not offered even a scintilla of evidence to support his assertion. *Little v. Liquid Air Corp.*, 37 F.3d at 1075.

Respondent argues also that manipulation of images and data for publication in articles and grants is a commonly accepted practice in the scientific community and that what he did is not significantly different from what others do routinely. I find this assertion to be utterly without foundation in fact. Respondent cites to *nothing* that suggests that the wholesale manipulation and misrepresentation of information that occurred here is either commonplace or accepted within the scientific community.

Respondent also asserts that he has repeatedly requested access to original data and notes from his actual experiments to determine if an image was inappropriately manipulated and by whom and that he has never been granted such access. Opposing brief at 2. Thus, according to him, he has been hamstrung in his ability to construct a valid defense to the allegations of misconduct. This argument is a red herring and Respondent's assertions are, in fact, untrue. Respondent originally contended that he was unable to frame a responsive answer to ORI's allegations of research misconduct because he had been denied access to critical information. In a ruling that I issued on November 21, 2008, I concluded that this assertion was false. Ruling Denying Motion to Supplement Hearing Request, November 21, 2008. ORI, had in fact, provided Respondent with voluminous information concerning its allegations. Since then, I allowed Respondent to take extensive discovery of ORI. ORI provided Respondent with copies of the CD-ROMs that were created and which contain all of the computer-stored data that is the basis for ORI's allegations. ORI also provided Respondent with a hard drive containing the data in "native" format. ORI pre-hearing brief at 4, n.6. He has also had the benefit of seeing all of ORI's other evidence, which ORI furnished to him as part of its pre-hearing exchange.

What Respondent has *never* explained is what might exist in materials to which he has allegedly been denied access that would change the dynamics of this case in the slightest. He has never asserted, for example, that there is exculpatory evidence in the allegedly withheld materials and he has never offered even a hint as to what such exculpatory evidence might be. Indeed, Respondent has never specifically identified the materials that he claims have been withheld.

Respondent also asserts that he possessed two Dell computers that were purchased for him by UW for his personal use and home travel. He contends that he can produce a witness who would testify that, to her knowledge, such computers did not contain evidence of image fabrication. Opposing brief at 3. These assertions are unpersuasive on several grounds. Respondent grounds his assertion on an affidavit by Ms. Elizabeth Glazatcheff (attached to Opposing brief as R. Ex. 13, at 42-43). Respondent submitted this affidavit untimely – months, in fact, after his deadline for exchanging evidence had expired – without making any showing of good cause for the affidavit's late submission.⁴

⁴ Neither Ms. Glazatcheff nor Respondent disclosed that she is his wife. R. Ex. 9, at 59. That fact is obviously important, however, because Respondent cannot depict Ms. Glazatcheff as an individual whose information was unknown to him prior to now.

For that reason I have excluded it. Moreover, the affidavit does not on its face address the very specific allegations by ORI that Respondent published images and data that were altered and falsified. It is irrelevant that there may have been other computers that Respondent had control over that are not implicated in this case. Finally, Ms. Glazatcheff's affidavit addresses Respondent's assertion that others had access to the laboratory computers and that these other individuals may well have created the false information that Respondent published. I have explained above why I find it irrelevant that others may have shared the computers or actually done the manipulations that Respondent falsely represented as products of his research.

Respondent also offers the affidavit of an alleged computer expert, Richard Gademan, purportedly to show that the Adobe Photoshop files on the drive provided to Respondent by ORI do not contain author information or complete file pathways and would have to have come from a different source than stated by ORI. This affidavit is attached to the Opposing brief and identified by Respondent as R. Ex. 13, at 44-45. It was also filed by Respondent months after his deadline for filing evidence expired and without any showing of good cause by him for filing it late. I exclude it for that reason.

Respondent argues that most, if not all, of the false and fabricated images were created in the late 1990's, allegedly years prior to the publications that are at issue in this case. Opposing brief at 5. That assertion is wrong as a matter of fact and unsupported by anything offered by Respondent. ORI offered evidence that shows that many of the manipulations and false images found on Respondent's home computer that are the basis for ORI's allegations were made virtually contemporaneously with their attempted publication. Respondent has offered no evidence to rebut what ORI offered. Furthermore, it is unclear to me why Respondent's assertion would be relevant even assuming it to be true. Respondent is equally responsible for truthfully representing images that were created years prior to their publication as he is for images that were created close to the date of their publication.

Respondent takes issue with an assertion by ORI that he disseminated false information and data to individuals who trusted him. Opposing brief at 6. "[Y]et ORI offers no explanation why these same friends and colleagues continue to support Respondent." *Id.* This argument raises no disputed issue of fact. Whether individuals who Respondent may have deceived continue to support him is not relevant to the issue of whether Respondent provided them with false information. If the information that Respondent provided was false, and Respondent deliberately provided it, then he is culpable for research misconduct even if his friends continue to support him.

I turn now to the specific allegations of research misconduct and to the undisputed material facts established by ORI.

a. ORI finding #1

At issue here is a figure identified as Figure 1 which Respondent included in: three manuscripts that he submitted for publication as journal articles; PowerPoint presentations; and at a scientific conference. January 29 ruling at 9. The alleged purpose of the figure was to demonstrate how HIV RNA, representing a newly replicated virus, can be detected in a cell negative (non-stained) for Ki-67, an antibody that detects activated and dividing cells. *Id.* Respondent submitted a manuscript containing this figure to the *Journal of Experimental Medicine (JEM)* on March 25, 2002. ORI Ex. 2; ORI Ex. 46, at 3. He also submitted the manuscript on two occasions, on May 30, 2002 and on August 23, 2002, to the *Journal of Virology (JV)*. ORI Ex. 46, at 4-5. He presented the figure at a conference in Antwerp, Belgium, on May 13, 2002. *Id.* at 21. On March 20 and June 12, 2002, he presented the figure in PowerPoint presentations. *Id.* at 20-23.

The figure constitutes a merger and manipulation of at least two separate figures. ORI Ex. 46, at 3, 9-15. It is false and it is material. Respondent admitted that he intentionally added the figure to his submissions in order to visually demonstrate HIV replication in lymphoid cells. ORI Ex. 6, at 12-13.

ORI presented evidence showing that figures on Respondent's home computer were altered in order to generate Figure 1. It also presented undisputed facts showing that Respondent repeatedly changed his description of the figure, depending on the audience he presented it to. The inescapable inferences that I draw from these facts are either that Respondent intentionally manipulated images to create false data or that he utilized such images without verifying their truth and accuracy.

ORI presented facts which show that the images that Respondent manipulated were saved on a laboratory computer on March 18, 2002, seven days before Respondent submitted his *JEM* manuscript. ORI Ex. 46, at 16-17. They were also saved on Respondent's *home* computer and were modified on that computer on March 25, 2002, the same date that Respondent submitted his *JEM* manuscript for publication. *Id.* at 18-19. The figures that were used to generate Figure 1 and other similar figures were saved again on Respondent's home computer on May 1, 2002, shortly prior to his two manuscript submissions to *JV. Id.* at 18-19.

Moreover, ORI has offered facts showing that Respondent repeatedly changed his description of the image in various attempted publications and presentations, thus further misrepresenting what the figure depicted. In his March 20, 2002 PowerPoint presentation, Respondent asserted that the figure represented lymph node cells. ORI Ex. 46, at 20. In his March 25, 2002 *JEM* manuscript, he again asserted that the figure depicted lymph node cells. *Id.* at 3. On May 13, 2002, at a scientific conference, he described the figure as having rectal origin. *Id.* at 21-23. Then, on May 30, 2002, he

again described the figure as depicting lymph node cells in the manuscript he submitted to *JV*. *Id*. at 5. But, on June 12, 2002, in a second PowerPoint presentation, he described the figure as depicting rectal mucosal leukocytes. *Id*. at 22. He once again referred to the figure as lymph node cells in a second submission to *JV* that he made on August 23, 2002. However, he changed the description yet again in another PowerPoint presentation that he made on September 17, 2002, referring to it this time as depicting tissue of rectal origin. *Id*. at 23.

Respondent has offered no facts that call into meaningful dispute any of the facts offered by ORI concerning his falsification or fabrication of Figure 1. Indeed, Respondent does not directly deny the facts that ORI presented. He asserts that submission of an article to multiple journals is no evidence of misrepresentation. Opposing brief at 10. I do not disagree with that assertion but, on the other hand, I am not inferring that Respondent did anything improper by submitting an article to more than one publication.

Respondent argues that Figure 1 was included in the article submitted by Respondent at the insistence of co-authors. Opposing brief at 10. I will accept this assertion as true for purposes of this decision. But, the fact that co-authors wanted the figure included in the article is no defense here, because it is Respondent who caused the falsified or fabricated figure to be submitted.

Respondent argues also that ORI produced an image of Figure 1 that does not identify the author and which predates the purchase of Respondent's home computer. Opposing brief at 10. It is unclear to me what Respondent intends by this assertion. However, even if it is true, it does not derogate from the fact that Respondent saved Figure 1 to his home computer shortly prior his submission of journal articles and that the figure was modified on his home computer.

b. ORI finding #2

ORI finding # 2 involves a figure described as a "three paneled figure" and "Panel A" that Respondent included in manuscripts, grant applications, and PowerPoint presentations. January 29 ruling at 11; ORI Ex. 47, at 7-8, 46. ORI offered evidence to show that this figure was revised and changed on Respondent's home computer on several occasions. *Id.* at 92, 98, 98a, 99, 99a.

In various submissions Respondent changed his description of the figure. In a manuscript that Respondent submitted to *Nature Medicine* in April 2001 he described the figure as "Activated memory CD4+ T cells" with an asserted purity level of 97.7%. *Id.* at 7-8, 46. The manuscript was rejected on June 20, 2001. *Id.* at 93. Respondent received the rejection letter by e-mail on June 20, 2001, and, the next day, the figure was changed on Respondent's home computer. *Id.* at 93, 98, 98a. The figure was changed again on Respondent's home computer only a few days later. *Id.* at 99, 99a. Respondent

resubmitted the manuscript to *Nature Medicine* on October 23, 2001. *Id.* at 102. In describing Panel A, Respondent now contended that the purity level of the data depicted was 99.7%, a two percent increase from his previous submission. In the middle panel of the figure data points were moved from the top left quadrant to the lower right quadrant. And, a graph was added to the panel. *Compare* ORI Ex. 47, at 136, *with* ORI Ex. 47, at 46 and 92.

Panel A is false and materially so. January 29 ruling at 11-12. The multiple alterations that were made to the panel on Respondent's home computer in close proximity to Respondent's submission of the figure in different attempts at having it published lead to only one reasonable inference. That is that the panel was altered (both the image and his description of it) in order to make it more persuasive to editors of the various journals to whom he submitted for publication the article containing the panel, and to others to whom he presented the panel. Either Respondent personally altered the figure, or he submitted the figure without verifying its truthfulness.

Respondent has offered nothing that calls the facts offered by ORI into legitimate dispute. He asserts that image manipulation is not necessarily falsification of the image, citing to a statement made by a representative of ORI. Opposing brief at 11; *see* R. Ex. 4.B [at pages 2-145]. However, what is at issue here is not mere "manipulation" of an image. Respondent either altered Panel A and changed his assertions as to what the panel represented or he published it with indifference to its truthfulness. As I discuss above, in submissions subsequent to his original submission of the panel he asserted that the purity of the sample depicted was higher than he originally represented it to be.

Respondent suggests that he was deprived of access to the original data from which the panel was constructed. Opposing brief at 11. However, Respondent does not suggest that this data would justify the manipulations and alterations that he made to the panel.

Respondent also alleges that various individuals either constructed or contributed to the creation of a figure he describes as "Figure 2." Opposing brief at 11. It is unclear what Respondent is referring to. ORI did not refer to Panel A in its submissions as "Figure 2" (although there is a "Figure 1" in Panel A that ORI contends was misrepresented by Respondent). Thus, it is unclear to me whether Respondent's assertions even address the allegations made by ORI. But, assuming that they do, the fact that others may have contributed to the creation of Panel A – an assertion which I accept solely for purposes of deciding this case – does not excuse Respondent from liability for submitting a figure that was altered and falsified. It was Respondent who ultimately bore responsibility for submitting honest research results. He cannot hide behind the assertion that others may have assisted him, even if they may have contributed to the falsification of results.

c. ORI finding #3

ORI's allegations relate to a figure that Respondent first submitted in an article to the *American Journal of Pathology (AJP)* in May 1999. That article contained a figure which Respondent described as lymphoid tissue from pediatric lung. ORI Ex. 48, at 3. In December 2001, however, Respondent submitted the figure as part of a grant application, 1 R01 DE 014827-01, in which he was principal investigator. In the grant application he described the figure as comprising lingual tonsil. *Id.* at 6; ORI Ex. 30.1, at 2-3. Respondent offered no explanation in the grant application for the changed description of the figure. Additionally, the figure that Respondent resubmitted was altered in size, and rotated so that it appeared at first glance to be different from that which he presented in the *AJP* article. *Id.* at 7.

The original image from the *AJP* article was present on an Apple computer used by Respondent. The altered image, used in the grant application, was present on Respondent's home computer and it was dated December 7, 2001, just four days prior the submission date of the grant application. ORI Ex. 48, at 10-10a.

The figure submitted in the grant application was false and materially so. January 29 ruling at 12-14. The only reasonable inferences that I can draw from the facts now submitted by ORI are either that the falsifications were done deliberately by Respondent in order to provide support for his grant application, or that he submitted altered data without caring whether or not it was accurate. These inferences are inescapable given that the image was altered on Respondent's home computer just four days prior to its submission as part of the grant application.

Respondent has offered nothing that materially rebuts ORI's allegations. In opposing them he asserts that he had no office and that all computers were "community-used" in the laboratory that he directed. Opposing brief at 12. However, ORI's allegations are not based on images that were found on "community-used" computers at the laboratory but on Respondent's *home* computer. Respondent also alleges, without elaboration, that the image was "produced by a collaborator." *Id.* He has offered no evidence to support that assertion, but, assuming that to be true, it does not excuse Respondent's use of it in his grant application.

d. ORI finding #4

This allegation involves an image that Respondent first published as an insert in Panel K of Figure 1 in his 1999 *AJP* paper. ORI Ex. 49, at 7; *see* subpart c. of this Finding. On April 7, 2001, various altered versions of this image were saved on Respondent's home computer. *Id.* at 9-12a. Respondent included the image as Figure 5A of the grant application 1 R01 DE 014827-01 which he submitted in December 2001. That image is labeled as "lingual tonsil." *Id.* at 6. However, in the same grant application Respondent

included an image identified as Figure 9D. *Id.* at 5. That image is the *same image* as in Figure 5A except that it is labeled as "rectal mucosa", it is inverted, and some data is removed from it. Subsequently, Respondent used the falsified Figure 9D in several PowerPoint presentations and supplied it to colleagues for use in their grant applications. *Id.* at 17-19, 21-22, 26-27, 28-35.

Figure 9D is materially false. January 29 ruling at 14. I can find no reasonable explanations for the falsification other than that Respondent either deliberately created it in order to provide support for his grant application or that he submitted it without caring whether or not it was true.

Respondent alleges that it would be "physically impossible" that the figure would have been altered on his home computer due to "the same dates and time stamps." Opposing brief at 13. However, that assertion does not gainsay the fact that the images comprising the figure were found on Respondent's home computer nor does it rebut the facts showing that altered images were present on that computer.

Respondent also asserts that the terms "rectal mucosa" and "rectal tissue" mean the same thing and that there would be nothing improper using slides – presumably labeled either as "rectal mucosa" or "rectal tissue" in different presentations. But, that argument does not address the fact that Respondent changed the labeling of the figure from its original label of "*lingual tonsil*" to "rectal mucosa" nor does it explain the inversion of the image in order to create two different looking images in the same grant application.

Finally, Respondent asserts again that others were responsible for either creating the original image or making the alterations. As I have done previously, I am assuming these assertions to be true solely for purposes of deciding the motion. They do not in any respect justify Respondent's use of the altered image in his grant application or elsewhere. As the principal author of the research, Respondent is responsible for the truth of its contents. And, here, the "error" is such an obvious fabrication that Respondent could only have made it deliberately or used the falsified image with reckless disregard for the truth or falseness of what he published.

e. ORI finding #5

At issue here is an image containing green fluorescent cells. ORI offered evidence to show that Respondent represented these cells as showing different things. At times, the images were altered, sometimes to depict separate cells (labeled separately), and sometimes to show them as a composite image. The manipulated image is false and was material to the grant application that Respondent filed. January 29 ruling at 14-15.

Respondent published a paper in *Nature Medicine* in January 1999 in which he presented the cells as a single image. ORI Ex. 50, at 2. In August 2000, in a grant application, 1 R01 DE 014149-01, he presented the same image as a panel of four *individual cells*, which he labeled as having been treated differently. *Id.* at 3. An image on Respondent's home computer, saved on August 2, 2000, resembles the image published in *Nature Medicine*. *Id.* at 10, 10a. Another image on Respondent's home computer, saved on August 12, 2000, is identical to that which appeared in the grant application. *Id.* at 3, 11, 11a.

The only reasonable inferences that I can draw here are either that Respondent deliberately falsified images of cells in order to support a grant application or that he made use of falsified information without caring whether it was true. These inferences are driven by the undisputed fact that the altered images were saved to Respondent's home computer at about the same time that he filed the grant application.

Respondent has not provided anything that rebuts ORI's allegations. He asserts that the "files ORI refers to were uploaded to [Respondent's home] computer from another unidentified computer on April 30, 2002 and May 1, 2002." Opposing brief at 14. That assertion is irrelevant. Whether the material was uploaded at a date after a particular image was last modified, or appeared on Respondent's home computer in 2000, does not change the fact that the images appeared in Respondent's publication and grant application. Respondent also asserts that a witness admitted that the images would have been prepared by someone working with Respondent in his laboratory. Opposing brief at 13. However, even if that is so, the assertion says nothing to derogate from ORI's evidence. The possibility that Respondent may have had collaborators does not diminish his liability in any respect.

f. ORI finding # 6

ORI's allegations of research misconduct in this finding center around a unique butterfly-shaped cell that first appeared in an article published in *The Journal of Clinical Investigation (JCI)* in May 2000 with Respondent as one of the authors. ORI Ex. 51, at 3. An electronic version of the figure dated July 26, 1999, was found on Respondent's office computer. *Id.* at 4-4a. In March 2001, Respondent submitted a proposed article to *Nature Medicine*, containing the figure with the butterfly shaped cell as Figure D5. *Id.* at 5. This image was saved to Respondent's home computer. *Id.* at 5, 6-7a; *see also Id.* at 8-9a. In the *Nature Medicine* submission the figure was described completely differently than in the *JCI* article. The figure on Respondent's home computer was modified, most recently on October 10, 2001, and appears in various grant applications and PowerPoint presentations. *Id.* at 8a, 9a, 11, 13-16a.

The modified images are false and were material, not only to articles submitted by Repondent, but to articles and grant applications filed by individuals to whom Respondent gave the images. The fact that the modifications appear on Respondent's home computer can only support findings that either he was responsible for altering the images and submitting them knowing that they were false or that he submitted them with reckless disregard for the truth of their contents.

Respondent has not provided facts that derogate from those presented by ORI. He asserts that another individual admitted to altering fluorescent images. That is the same argument that Respondent makes repeatedly, that others, and not he, may have made the falsified images. But, that assertion – even if it is true – does not detract at all from the fact that it was Respondent who *presented* images in journal articles and in grant applications that were palpably false. As I have stated repeatedly in this decision, Respondent is as liable for images that others may have fabricated, but which he presented or attempted to publish, with reckless disregard to their truth, as he is for images that he personally falsified.

g. ORI finding #7

This allegation relates to an image that Respondent described differently on different occasions. It appears first as an image that Respondent provided to another individual and which was included in that individual's May 2001 grant application. ORI Ex. 52, at 3. On that occasion, the image (Panel III D in the application) was described as ovine lentivirus infection of cloned sheep. *Id.* However, in a manuscript submitted to the journal *Science*, of which Respondent was the second author, the same figure (Panel III A insert in the manuscript) was described as pediatric lung tissue. *Id.* at 4. Then, in a December 2001 grant application filed by Respondent, he described the same figure as being derived from lingual tonsil tissue. *Id.* at 5. In a PowerPoint presentation Respondent offered the identical image more than once and described it in different parts of his presentation as lingual tonsil and lung tissue. *Id.* at 12-13.

The image which appears in the various articles and the presentation was present on Respondent's home computer. ORI Ex. 52, at 9, 9a, 10, 10a, 11, 11a. The image was material to the documents in which it was used and the varying descriptions of it are false. January 29 ruling at 16.

I can only conclude that Respondent's repeated labeling changes of the image were either deliberate falsehoods or done with reckless disregard to what he purported to present. Respondent cannot credibly contend that he relied on descriptions provided by other individuals given that the image was saved to his home computer more than once and that he was the author of the image's changed descriptions. Respondent has provided no explanation for the changes. Opposing brief at 14-15.

h. ORI finding #8

This allegation address images of red and green fluorescent cells that first appeared as an image of red cells in Figure 5 of Respondent's May 2000 *JCI* article. ORI Ex. 53, at 3. This image was later presented in a colleague's grant application, except that the cells were rotated and spaced further apart. They were represented to be derived from sheep tissue. *Id.* at 5. The presentation of the image corresponding to the grant application was saved on October 24, 2000, on Respondent's home computer. *Id.* at 6, 6a. In June 2001, the cell image was presented in a manuscript submitted to the journal *Science* and labeled as lung tissue. *Id.* at 7. The image used in the manuscript was saved on Respondent's home computer. *Id.* at 8, 8a. In his grant application, R01 DE0104827-01, Respondent used two versions of the image, one with the cells colored red and the other with the cells colored green. *Id.* at 9, 13, 14.

I previously found the manipulations and changed labeling of the images to be false and material. January 29 ruling at 16-17. Here, I conclude that the evidence offered by ORI leads inevitably to findings that Respondent either falsified the images himself or submitted them with reckless disregard of their truth. The images were present on his home computer and changes in them correspond with modifications that show up on his computer.

In response to ORI's allegations, Respondent asserts that he was: "known to be out of town the week of Christmas [2000]." Opposing brief at 15. However, he has not explained how this absence from his work corresponds with any of the modifications or alterations of images alleged by ORI and it certainly does not account for his submission of palpably false images. Respondent also asserts, without any explanation of the relevance of his assertion, that all files were uploaded to his home and office computer on April 30, 2002, and later. *Id.* I have no clue as to what Respondent is alluding to here. In any event, he does not deny any of the facts relied on by ORI.

i. ORI finding #9

ORI's allegations address panels consisting of five and ten images. The five panel version was contained in a grant application that Respondent submitted in December 2001 and in grant applications by two of his colleagues, submitted in November 2001 and January 2002. *Id.* at 3-5. The ten panel version was contained in grant applications by two of his colleagues, submitted in April 2002. *Id.* at 6-7.

Images A in the two panels were modified by adding dark spots to the images. Three cells were added to panel D in the ten panel version as compared to the same image in panel E of the five panel version. *Id.* at 11, 12. In my January 29 ruling I found the

manipulations to be significant in that they allowed Respondent to use a smaller area of the original figures – but in higher magnification – to show a meaningful number of cells that were positive for HIV RNA. January 29 ruling at 17. That conclusion was not challenged by Respondent in either his hearing request or subsequently.

Respondent was the common source for the falsified images. Respondent's colleagues asserted that he gave them the figures containing the manipulated composites. ORI Ex. 43, at 2; ORI Ex. 44, at 1. Respondent used both the manipulated five and ten panel figures in PowerPoint presentations. ORI Ex. 54, at 22-26. The modified figures were found on Respondent's office computer and on his home computer as well. *Id.* at 13-20a. Moreover, the images appearing on Respondent's home computer contain the additional cells that appear in the images. *Id.* at 16.

This evidence supports a conclusion that Respondent was the source of falsified images. The falsifications appear in images that Respondent submitted directly and in images that Respondent gave to others. And, they appear on his home computer.

Respondent asserts that others acquired the images in question without his knowledge. Opposing brief at 16. That is a bald assertion without supporting proof. The unrefuted evidence is that Respondent gave the images to others. However, assuming Respondent's contention to be true, it does not relieve him of liability for falsifying the images. He also asserts that not all of the images in question were on his home computer and that those that were predated the computer purchase. This is also an assertion that is made without support. The fact is that these images were on his home computer when it was sequestered by UW in response to allegations that Respondent had committed research misconduct. Respondent has offered no cogent explanation of how the files could have found their way onto the computer prior to his obtaining it.

j. ORI finding # 10

ORI's allegations relate to an image of a cell that appeared twice in an NIH grant application. The presentation of the image made it appear as if it represented two images from a culture treatment that had been obtained at two and 12-hour intervals. January 29 ruling at 18.

ORI offered evidence showing that the author of the grant application, a colleague of Respondent, received the images that were used in the application from Respondent. ORI Ex. 44; *see* ORI Ex. 44, at 1. Figures with the falsely labeled cells were found on Respondent's office computer. ORI Ex. 55, at 2a, 3a.

The only reasonable evidence that I can make from these facts is that Respondent either created the falsified images or distributed them with reckless disregard of their truth.

Respondent asserts that the colleague who received the images from Respondent made contradictory statements by asserting that he received them from Respondent and by stating the final grant application was actually produced on his, and not Respondent's, computer. Opposing brief at 16. I find no contradiction in these statements. The grant application was, after all, produced and submitted by Respondent's colleague, and one would expect that the colleague would produce the final product. What is at issue is not the final product but what was supplied to the colleague by Respondent. It is perfectly consistent with the colleague's testimony that he received images from Respondent which he incorporated into his application. To read that testimony to mean otherwise makes no sense.

Respondent argues also that the images in dispute were "simple and routine for the lab and were used as illustrations for a technique." Opposing brief at 17. He contends that ORI has offered no plausible explanation why Respondent would knowingly misrepresent the facts.

I find this assertion to be unpersuasive for two reasons. First, Respondent has offered no support for his assertion that the images were "simple and routine." His statement is essentially an unadorned contention. But, even if it were true, it does not derogate from the fact that Respondent at least recklessly provided a colleague with images that were palpably false.

The many examples of such falsification established by the record of this case establish a pattern of occasions on which Respondent either manipulated data and images to suit his purposes or submitted images and data without regard for their truth. Some of his manipulations may well have been more serious than others in the sense that they contained misrepresentations of greater significance than were made in other false statements and images. But, the overall picture – which I discuss at more length below – is of an individual who simply did not care whether his research results were honest. It is consistent with this indifference to the veracity of results that Respondent would submit false images at times that may not have been as significant as at other times. That does not detract from the overwhelming evidence of dishonesty that is portrayed by the undisputed facts.

k. ORI finding #11

At issue here is a figure depicting HIV decay in particular cells ("Viral Decay Figure"). The data for that figure, according to ORI, were generated originally by a researcher at the National Institutes of Health (NIH) based on measurements of viral decay in peripheral blood samples of individuals receiving a treatment known as HAART therapy. ORI Ex. 56, at 4-5. ORI asserts that a graph of this data appeared on Respondent's home computer. *Id.* at 7, 7a. It contends that a computer file on the home computer that was last modified on January 20, 2002, contained the original data. *Id.* at 8-8a. However,

according to ORI, two days later, on January 22, 2002, the data on Respondent's home computer was altered by the deletion of a data point. *Id.* at 9, 9a. On March 19, 2002, the data was altered again in a new file saved on Respondent's home computer. *Id.* at 10, 10a. ORI asserts that Respondent used the altered data at least eight times in 2002 in various grant applications and presentations. *Id.* at 11-18. Moreover, according to ORI, Respondent misrepresented the data by asserting that it represented CD4+ cells from rectal mucosal samples when the cells actually came from peripheral blood samples. *Id.*; ORI charge letter at 30.

The evidence presented by ORI, if not rebutted, proves falsification of research results by Respondent. The only reasonable inferences that I can draw from it are that Respondent either consciously altered data supplied to him by NIH and misrepresented its significance or that he presented false data without verifying or caring about its truth.

Respondent seems to contend that, if there were alterations to the data, they may have been made by another individual. Opposing brief at 17. I find that this assertion does nothing to rebut ORI's evidence. As I have stated repeatedly throughout this decision, Respondent was responsible for assuring that what he submitted was accurate and true. Even if another individual altered the data, Respondent submitted it as his own. His willful disregard of the truth of the material he submitted is research misconduct as much as if he personally falsified that material.

l. ORI finding # 12

At issue here is a figure that Respondent included in an article that was published in the *Journal of Infectious Diseases* and, subsequently, in PowerPoint presentations. The image falsely misrepresents that which it portrays. January 29 ruling at 19-20; ORI Ex. 57, at 7, 27. In the article Respondent asserted that the image was derived from lymph node cells. ORI Ex. 57, at 7. However, in other presentations and in files contained on Respondent's home computer, the images were described as being derived from rectal tissue. *Id.* at 23-24a, 30. Records from Respondent's home computer show that the labels on the rectal tissue versions of the image were altered on April 3, 2001. *Id.*

If these facts are not rebutted they lead inevitably to the conclusion that Respondent falsely stated in a journal article and in subsequent presentations that an image of tissue represented something other than what it actually depicted. I do not find that Respondent rebutted them. He contends, first, that the computer that ORI identifies as his home computer in this finding actually was a laboratory computer that was shared by many individuals. I will assume that assertion to be true solely for purposes of this decision. The conclusion that Respondent would have me draw from this is that others besides Respondent may have made the falsification that is at issue here. But, if that is so, Respondent nevertheless presented the falsely labeled research *as his own work product*.

That is, if nothing else, reckless submission of false data and Respondent is as liable for that as if he had deliberately and purposefully made the falsified statement. Second, Respondent argues that the images at issue were simple and routine and there was no reason why he would fabricate them. But, Respondent has offered no support for this contention and, moreover, he obviously thought it to be significant when he included it in his journal article and in PowerPoint presentations.

m. ORI finding # 13

ORI's allegations of deliberate falsification involve an image that was published originally in a 1987 paper by Respondent's Ph.D mentor at Colorado State University. In September 2000 Respondent published an article in the *Journal of Leukocyte Biology* (*JLB*), with himself as the sole author, which contained two panels that Respondent labeled as representing follicular dendrytic cells incapable of actively producing new HIV particles, and a macrophage cell that was producing a new virus. January 29 ruling at 20. In fact, the images were false, constituting manipulated excerpts from an image published by Respondent's Ph.D mentor. *JLB* retracted the article when the false images came to light.

ORI produced evidence obtained from Respondent's home computer showing that the images were manipulated repeatedly. ORI Ex. 58, at 7-15a. Manipulations included flipping the image, rotating it, erasing or filling in vacuoles, adding or deleting virions, and adding or deleting cellular materials. *Id*.

This evidence, if not rebutted by Respondent, leads either to the conclusion that he deliberately manipulated data on his home computer, in a particularly egregious way, in order to generate images that he used for his own advancement or that he submitted false information without regard for its truth. Respondent has not rebutted it. Much of his arguments relate to what Ms. Glazatcheff and Mr. Gademan would testify to. I have barred the admission of this testimony because Respondent filed it untimely and without justification. Respondent asserts also that the images predated the purchase of his home computer and that nothing shows who created the files and on what computer the files were first created. But, this assertion does not gainsay the fact that the images actually appearing on Respondent's home computer are contemporaneous with his publication of the *JLB* article that contained those identical images. If Respondent did not create them he certainly made use of them without caring about their provenance.

n. ORI finding # 14

This allegation relates to Panels A and B of Figure 4 in a grant application, R01 DE 014827-01. They were offered by Respondent to show the presence of HIV RNA in three sequentially sampled oropharyngeal sites. They are false in that they show a higher level of virus replication than was actually the case, thereby representing false data.

January 29 ruling at 21. They are also false in that the image deletes certain blotches and adds another that was not originally present. The images appear on Respondent's home computer in various stages of manipulation. ORI Ex. 59, at 10-11a. The evidence offered by ORI here, as with the other findings by ORI, points directly to Respondent as the source of the manipulations and false statements because the manipulated images were saved to his home computer. But, even if Respondent did not personally create the falsifications, he used them, and he did so without verifying their truth.

Respondent asserts that there is no misrepresentation in the image but, rather, "just a lack of understanding of human anatomy by ORI." Opposing brief at 20. But, human anatomy is not the issue here. Rather, it is the manipulation of images in order to show something other than that which they originally depict. Respondent also asserts that the image in dispute was a simple image, one that was routine for Respondent's laboratory. *Id.* He questions why he would knowingly use a false image when similar data and associated images had been produced in the laboratory for years. *Id.*

I make no finding here as to exactly what were Respondent's motivations. But, as I have said elsewhere, reckless disregard for the truth of the contents of scientific information is as much research misconduct as intentionally falsifying such information. Here, the unrebutted evidence shows that Respondent either manipulated the images on his home computer and then used them as if they had not been altered, or published altered information without verifying its truth. That is sufficient to establish misconduct.

o. ORI finding #15

ORI's allegations of falsification address three figures (Figures 4, 6, and 8) that are in a grant application that was submitted by Respondent and a former colleague. The undisputed facts show that Respondent supplied his colleague with the figures and that these figures are false. January 29 ruling at 22-23; ORI Ex. 60, at 5-7; 8-11.

i. Figure 4

Figure 4 is a 2 panel figure depicting six histology images and six graphs of data, purportedly representing ovine lentivirus in lymph nodes in infected sheep. ORI Ex. 60, at 2. Falsification of the figure is evident. Images F and D from the first panel of the figure (Panel 1) are identical except that either some dots have been added to image D or deleted from image F. These images appear on Respondent's home computer and were altered several times. ORI Ex. 60, at 12-15a.

Not only are some of the images falsified but graphs in the figure are false as well. The regression lines of the graphs are inconsistent with the data points. In other words, plotting the data points would yield results that are inconsistent with the regression lines on the graphs. ORI Ex. 60, at 16.

ii. Figure 6

The figure appears on Respondent's computer with a different label and description than that which is stated in the grant application. The figure is inconsistent with several other versions of the same data which appear on Respondent's home computer. ORI Ex. 60, at 18-20.

iii. Figure 8

Figure 8 is a three-panel figure that is labeled in the grant application as "Viral genetic analyses." ORI Ex. 60, at 4. The figure existed in alternate form on Respondent's computer. *Id.* at 21. In the grant application, the figure is labeled as representing ovine lentivirus in sheep, whereas the identical image on Respondent's computer is represented as HIV-1. *Id.* The computer file describes the image as being derived from human subjects whereas the grant application labels it as being of animal origin.

It is unclear from analysis of Figures 4, 6, and 8, whether the versions on Respondent's computer, those in the grant application, or all of them are false. One can only say that it is not possible for all of them to be accurate inasmuch as they are inconsistent and, in the case of Figure 4, clearly incorrect. But, the evidence offered by ORI shows that the figures originated with Respondent inasmuch as they were on his computer and that he either manipulated those figures on his computer to change their appearance and the results depicted, or obtained and used them without verifying the truth of what he was using.

Respondent has offered nothing that rebuts ORI's facts. He contends that the allegations are novel in the sense that they were not made nor investigated by UW. Assuming that to be so, it does not comprise a valid defense to the allegations. ORI is not limited by what UW may have found.

Respondent also asserts that his collaborator on the grant has, in effect, vouched for Respondent's honesty. Opposing brief at 21. But, the opinions of Respondent's colleague, no matter how heartfelt they may be, do not comprise rebuttal of the facts offered by ORI. Respondent has not provided facts that show that the manipulations came from some source other than him or that he did not pass on manipulated data and images.

Respondent also avers that he e-mailed the correct images to his collaborator. Opposing brief at 21. It is unclear what Respondent means by this assertion. However, he has not denied that the images in the grant application are false nor has he provided any facts to show that he did not supply those images to his collaborator.

4. Respondent's additional arguments do not bar entry of summary disposition.

Respondent makes additional and miscellaneous arguments which I address here. I find them to be without merit and they serve as no valid defense to ORI's motion for summary disposition.

a. Respondent has not shown that he has been denied due process nor has he established that the allegations that are the basis of this case are barred by a statute of limitations.

Respondent complains about the protracted nature of ORI's investigation and the length of time it took for ORI to produce the allegations that are the basis for this case. He contends that he is at a "severe disadvantage" as a consequence of these time delays and what he characterizes as the overall unfairness of ORI's investigation and the process by which ORI generated its allegations of misconduct. Opposing brief at 21-22.

However, Respondent has not made any specific allegations showing how he was deprived of due process either by the delay in producing the allegations at issue here or by ORI's investigative procedures aside from making generalized complaints of unfairness. Respondent has not made any showing that there exists exculpatory evidence to which he has been denied access. As I discuss above, Respondent has complained repeatedly that he has been denied access to relevant information and evidence without ever substantiating his complaints. In fact, ORI has turned over voluminous evidence to Respondent including that data and information on which ORI bases its misconduct allegations.

Furthermore, Respondent has not shown that the allegations in this case are barred by a statute of limitations. The current regulations governing ORI's investigations do contain a six year statute of limitations. 42 C.F.R. § 93.105(a). However, this regulation plainly does not apply to allegations of misconduct that predate its publication. 42 C.F.R. § 93.105(b)(3).

b. ORI is under no obligation to obtain testimony from certain witnesses.

Respondent asserts that ORI did not produce testimony from UW investigators. He asserts also that former friends and colleagues of Respondent are reluctant to talk to him about the case. Opposing brief at 22. However, ORI is not obligated to produce testimony from any individuals. In its motion for summary disposition ORI offered facts which, if unrebutted, lead inexorably to the conclusion that Respondent committed research misconduct. That shifted the burden to Respondent to produce facts that would create a legitimate fact dispute. He has failed to do so.

5. The undisputed material facts establish a seven-year debarment to be a reasonable remedy.

ORI proposed that Respondent be debarred for a period of seven years. I have considered this proposal in light of the undisputed facts relating to the seriousness of Respondent's misconduct and the aggravating and mitigating factors governing the length of debarment that are set forth at 42 C.F.R. § 93.408. I have also considered it in light of the facts that the standard term of debarment is for three years and that this proposed debarment thus constitutes a departure from the standard. I find the proposal to be reasonable and so I recommend that Respondent be debarred for seven years.⁵

The undisputed facts establish this to be an extremely serious case of misconduct. Respondent committed research misconduct on a grand scale by publishing or attempting to publish false and fabricated images and information in numerous grant applications, journal articles, and presentations. The numerous instances of misconduct during a relatively short time frame establish a pattern of misconduct which transcends the specific instances that I discuss in this recommended decision. The magnitude of Respondent's misconduct is striking. ORI has documented numerous specific falsifications in 15 distinct allegations of misconduct that extended over a period of more than two years. These facts alone establish Respondent to be an individual who is manifestly untrustworthy to receive, utilize, or distribute federal funds.

The undisputed facts show that Respondent's misconduct had a substantial impact. Several grant applications were contaminated by it as well as journal articles. Colleagues of Respondent were compromised by their receipt of and use of false material that he had furnished to them. In at least one instance a journal found it necessary to retract an article authored by Respondent when the false statements in that article were revealed.

Furthermore, there is an evident failure by Respondent to accept his misconduct or to show remorse for it. Not only has Respondent refused to acknowledge any responsibility for the false images and data that he published or attempted to publish but he has advanced a series of explanations for those images and data that range from implausible to preposterous. Most striking is his refusal to acknowledge responsibility even for images and data that plainly were manipulated or concocted on his home computer without offering any plausible explanations, either for how those images or data could have been generated or saved, or why he would have used such palpably false materials without verifying the truth of their contents. Respondent also has attempted to hide his misconduct behind a series of irrelevant and frequently incomprehensible assertions. He

⁵ Respondent has made no challenge of ORI's proposal that he be prohibited from serving on any Public Health Service advisory committees. I therefore sustain this proposed remedy based on my findings of research misconduct committed by Respondent.

has attempted to depict himself as the innocent victim of a witchhunt by UW and ORI and as a dupe in a scheme that involved numerous researchers other than him. He has offered no evidence from which I or any reasonable fact finder could infer such allegations to be true.

I have looked closely at Respondent's submissions in order to determine whether he has offered facts which call into dispute those demonstrated by ORI and which demand further proceedings in this case to address the reasonableness of the proposed debarment. I find none. Respondent has offered statements from various individuals attesting to his personal qualities, his loyalty, and even to his honesty. But, these statements – even if heartfelt – add no facts to this case that contest those established by ORI. The misconduct committed by Respondent cannot be mitigated by evidence showing his good personal relations with other individuals or even by evidence showing that he has been trustworthy in areas other than those which are the basis of ORI's allegations.

/s/

Steven T. Kessel Administrative Law Judge