CITATION: Asa v. University Health Network, 2017 ONSC 4287
DIVISIONAL COURT FILE NO. : 018/17
DATE : 20170713

ONTARIO
SUPERIOR COURT OF JUSTICE

DIVISIONAL COURT

NORDHEIMER, R. SMITH & WILTON-SIEGEL JJ.

BETWEEN:	)	
	)	
SYLVIA ASA and SHEREEN EZZAT	)	*M. Fraleigh & M. Garland*, for the applicants
Applicants	)	
	)	
– and –	)	
	)	
UNIVERSITY HEALTH NETWORK	)	*E. Hoaken & L. Moscu*, for the respondent
Respondent	)	
	)	
	)	**HEARD at Toronto:** May 25, 2017

NORDHEIMER J.:

[1] This is an application for judicial review of two decisions by the respondent affecting the applicants, who are cancer researchers. One decision relates to the reconsidered sanction, applied by the respondent to the applicants, regarding research misconduct in which they engaged as found by an earlier investigation committee. The need to reconsider the sanction, in that matter, resulted from an earlier decision of this court, as I shall explain.[1] The other decision relates to further findings of research misconduct resulting from a second investigation committee.

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[1] *Asa v. University Health Network* (2016), 129 O.R. (3d) 94 (Div. Ct.)

I: Background

[2] The respondent is a multi-site public hospital which exists pursuant to the provisions of the *University Health Network Act, 1997*, S.O. 1997, c. 45 and which is subject to the provisions of the *Public Hospitals Act*, R.S.O. 1990, c. P.40. It is led by a President and Chief Executive Officer who, since January 5, 2015, has been Dr. Peter Pisters.

[3] The respondent currently operates five research institutes across the City of Toronto. The applicants are world renowned cancer researchers who have been engaged in research at the respondent for many years.

[4] In November of 2012, as a result of anonymous information, the respondent's attention was drawn to six scientific publications of which the applicants were senior authors. Generally, the concerns were that figures and images in these publications had been modified or enhanced in contravention of journal policies and generally accepted standards of the scientific community. Subsequent additional anonymous information led to concerns regarding irregularities in other papers authored by the applicants. By December 2012, at least thirty-nine images in twenty-four papers were impugned.

[5] On December 5, 2012, Dr. Christopher Paige, the respondent's Vice President, Research, and Dr. Charles Chan, its Vice President, Medical Affairs and Quality (and currently its Executive Vice-President and Chief Medical Officer), wrote to the applicants to formally advise them that an internal investigation committee had been struck (the "First IC"). The applicants were told that the First IC would be comprised of three scientists and they were given the names of those scientists.

[6] In addition, the applicants were advised of the nature of the allegations against them and advised of which specific images in which specific papers would be the subject of the investigation. The applicants were also advised that the investigation would be conducted in keeping with the respondent's research misconduct policy entitled "Research – Responsible Conduct of Research" (the "Policy") that had been implemented in 2011. The applicants were reminded of their rights

as part of this process, including their right to present their case to the First IC and to access supporting documents relied on by the First IC.

[7] The First IC completed and issued its final report on October 15, 2014. The First IC found that the applicants had engaged in "research misconduct", specifically, "material non-compliance with accepted standards", contrary to the Policy. The First IC also found that "falsification" and "fabrication" had occurred in the applicants' laboratory, but it noted that the evidence did not permit it to make a finding about who committed those acts.

[8] In accordance with the Policy, on October 22, 2014, Dr. Paige and Dr. Chan wrote to the applicants to advise of the sanction they had decided was appropriate in light of the report and findings of the First IC. The sanction imposed was a suspension of the applicants' research activities pending the outcome of the ongoing investigation (the "First Sanction"). In this letter, the applicants were also advised that, pursuant to the Policy, they could appeal the application of the Policy, and/or the appropriateness of the First Sanction, to the Chief Executive Officer of the respondent.

[9] On January 30, 2015, the applicants did exercise their right under the Policy to appeal the decision of the First IC and the First Sanction to Dr. Pisters. On March 3, 2015, after receiving and considering the appeal submissions of the applicants, as well as responding submissions from Dr. Paige and Dr. Chan, and further reply submissions from the applicants, Dr. Pisters determined that the Policy had been properly applied and that both the decision of the First IC and the First Sanction were reasonable.

[10] The applicants brought an application for judicial review of the decision of the First IC and the First Sanction to the Divisional Court. The application was heard on December 1, 2015. On January 20, 2016, the court released its decision on the judicial review application. The court first found that the applicants were awarded the procedural fairness to which they were entitled and, more specifically, that they were not entitled to an oral hearing. The Court then turned to the challenge to the decision and sanction. The court found that to the extent that there had been findings made that the applicants had committed research misconduct in the form of fabrication and falsification, that finding was an unreasonable one. However, the court also found that it was

reasonable for the First IC to find that the applicants had committed research misconduct in the form of material non-compliance.

[11] In light of the fact that the findings of fabrication and falsification as connected to the applicants were set aside, the court remitted the issue of sanction back to the respondent. As the court said, at para. 69:

> It is not possible to know whether, absent the findings of falsification and fabrication, Drs. Chan and Paige would have imposed the same sanction. Therefore, the question of sanction should be remitted to them for reconsideration in light of the findings of this court.

[12] Following the court's decision, Drs. Chan and Paige reconsidered the First Sanction. They confirmed that their decision was not influenced by any belief on their part that the applicants had been found to have personally falsified or fabricated images. Consequently, they concluded that the sanction of a suspension, that they had originally imposed, continued to be appropriate (the "Reconsidered Sanction").

[13] On February 22, 2016, the Applicants appealed the Reconsidered Sanction to Dr. Pisters, which they were entitled to do under the provisions of the Policy. Again, the procedure followed was that Drs. Paige and Chan delivered responding submissions, and the applicants replied to those submissions. On March 18, 2016, Dr. Pisters dismissed the applicants' appeal of the Reconsidered Sanction.

[14] I should make it clear that the investigation into the allegations of research misconduct had proceeded in stages. The First IC dealt with certain publications that were of concern. In May, 2015, a second investigation committee (the "Second IC") was formed to continue the next phase of the investigation. By letter dated May 27, 2015, Drs. Chan and Paige advised the applicants of the process by which the respondent would complete the review of the remaining publications under investigation and advised the applicants of the composition of the Second IC.

[15] At this time, Drs. Chan and Paige also advised the applicants that, in addition to the seventeen outstanding publications, allegations of image irregularities had been received with respect to additional publications. As well, an allegation had also been received that one article

published in Molecular Endocrinology contained statistical irregularities (as opposed to image irregularities). Thus, given the number of outstanding publications requiring investigation, Drs. Chan and Paige further advised the applicants that the Second IC would be continuing the staged investigation. The applicants were represented by legal counsel with respect to the Second IC, as they had been with respect to the First IC.

[16] The Second IC met on six occasions throughout 2015 to review the multiple images at issue and the alleged statistical irregularities in the five publications it was reviewing. On May 25, 2016, the Second IC provided its draft report to counsel for the applicants. Although finding there to be appropriate explanations for some of the alleged irregularities, the draft report concluded that the applicants had, in relation to a number of the specific papers under review, engaged in material non-compliance with accepted research standards.

[17] Exercising their rights under the Policy, on July 29, 2016, the applicants provided, through their counsel, a response to the draft report. Included in this response were letters written by what was referred to as three "independent reviewers". Two of these reviewers referred, in their respective letters, to having reviewed various materials, and provided certain opinions on the matters that the Second IC was considering. The third reviewer provided some technical information regarding image processing that related to certain of the issues that arose from the images that were of concern.

[18] On September 26, 2016, after receipt and consideration of the applicants' response to the draft report, the Second IC delivered its final report setting out its decision. In its decision, the Second IC concluded that the applicants committed research misconduct within the meaning of the Policy, on the grounds of material non-compliance with accepted standards and regulations. More specifically, the Second IC said:

> Specifically, the Committee has concluded that Drs. Asa and Ezzat have failed, over a period of eight years, as principal investigators, senior authors and research leaders, to ensure that the work produced by their laboratory, under their leadership, meets the standards accepted and expected at UHN and within the larger research community.

[19] The Second IC then set out three specific failings, namely, that the applicants:

(i) Failed to comply with the standards for manuscript preparation according to journal authorship policies and those standards generally accepted by the research community;

(ii) Failed in lab oversight, including a lack of accountability for primary data; and

(iii) Failed to acknowledge and adequately address concerns raised regarding published material identified by the Committee to contain improperly manipulated figures.

[20] As had been the case with the decision of the First IC, the decision of the Second IC found that they were unable to determine the identity of the person or persons who had caused the irregularities in the publications and thus they could not conclude, "one way or another, whether the applicants had any direct or indirect personal involvement in the falsification or fabrication of the images".

[21] Pursuant to the Policy, on September 28, 2016, after reviewing the decision of the Second IC, Drs. Paige and Chan issued their decision regarding an appropriate sanction. Based on the outcome of the second stage of the investigation, they concluded that the temporary suspension of the applicants' research activities, as principal investigators at the Research Institute, should be converted into a permanent closure of the applicants' research laboratory. Put simply, they concluded that the temporary laboratory closure imposed by the First Sanction should be made permanent.

[22] The applicants appealed the decision of the Second IC to Dr. Pisters. Because their laboratory privileges had also been terminated, the applicants also separately appealed the second sanction decision to the Health Professions Appeal and Review Board. In their material on the appeal to Dr. Pisters, the applicants also alleged that Dr. Pisters was biased as a result of having decided the appeal of the decision of the First IC.

[23] On October 25, 2016, Dr. Chan and Dr. Brad Wouters (who had replaced Dr. Paige), responded to the applicants' appeal of the Second IC's findings of research misconduct. The applicants replied to Drs. Chan and Wouters' submissions on November 2, 2016. Dr. Pisters reviewed the submissions and, in a decision dated January 4, 2017, Dr. Pisters dismissed the applicants' appeal. In doing so, Dr. Pisters advised that he had reviewed the applicants' allegation and decided that he was not biased as a result of having decided the appeal of the decision of the

First IC, or of the Reconsidered Sanction. Dr. Pisters also advised that he had engaged the Honourable Stephen Goudge, Q.C. as independent legal counsel to provide an opinion to him about the allegation of bias.

[24] The applicants now seek judicial review of the dismissal of their appeals from the Reconsidered Sanction and from the findings of research misconduct made by the Second IC.

II: The Policy

[25] Before turning to the issues raised on this application, I should set out some portions of the Policy that govern the investigations and determinations made with respect to research misconduct.

[26] The Policy codifies existing standards in the international research community and sets out a two-step process to address allegations of research misconduct. First, an inquiry is initiated to ascertain whether there are reasonable grounds to proceed to an investigation. The inquiry panel (which can consist of one or more persons) makes certain threshold determinations: for example, it decides whether the allegations, if proven, would constitute research misconduct, or if the complaint is frivolous or vexatious. The researcher is notified of the allegations made against him or her and informed of the outcome of the inquiry.

[27] If recommended by the inquiry panel, the second step is an investigation into the alleged research misconduct. The investigation is conducted by an independent investigation committee appointed by the Vice President, Research, and is usually comprised of three scientists, including at least one with no affiliation to the respondent. No person with a direct interest in the research or with a personal connection to the complainant or the respondent may serve on the committee.

[28] The Policy defines "research misconduct" as "[a]ny research practice that deviates materially from the commonly accepted ethics/integrity standards or practices of the relevant research community and includes, but is not limited to, intentional fabrication, falsification, plagiarism, and material non-compliance with accepted standards and regulations".

[29] Falsification, fabrication and material non-compliance are also defined in the Policy:

- Fabrication - making up data, source material, methodologies, findings or results, including graphs or images, and recording or reporting them.
- Falsification - manipulating, changing or omitting research materials, equipment, processes, data or results, including graphs or images, without proper acknowledgment such that the research is not accurately represented in the research findings, conclusions or records.
- Material non-compliance with accepted standards and regulations is the:

  ...

  (c) material failure to conform with accepted professional and academic standards and practices with respect to scientific rigour, accountability, honesty, fairness and professional integrity.

III: Justicability/Standard of review

[30] The applicants made submissions in their factum regarding whether the decisions in question can be judicially reviewed. The applicants submit that they can be based on s. 2(1) of the *Judicial Review Procedure Act*, R.S.O. 1990, c. J.1 and the fact that this court found, in its decision on the first judicial review, that the decisions were properly the subject of judicial review. The respondent accepted in its factum, based on the Divisional Court's earlier decision, that the decisions are subject to judicial review. Given that, there is no need to further address the question here.

[31] The parties also appear to be in agreement that the standard of review applicable to the decisions is that of reasonableness. Insofar as procedural fairness or natural justice issues are raised, the applicants say that the standard of review is correctness. The respondent addresses that issue in part by saying that any issue regarding bias is reviewable on the correctness standard.

[32] I accept that the standard of review for natural justice issues and procedural fairness issues (which include allegations of bias) is correctness: *Mission Institution v. Khela*, [2014] 1 S.C.R. 502 at para. 79.

IV: The Reconsidered Sanction

[33] I now turn to the first of the two decisions that are challenged, that is, the Reconsidered Sanction that arose from the decisions of the First IC as amended by the Divisional Court's earlier decision.

[34] The applicants say that the Reconsidered Sanction is unreasonable and excessive or, put another way, disproportionate to the misconduct found. Two main issues are raised. One is that the applicants say that the Reconsidered Sanction failed to properly apply the earlier decision of the Divisional Court. In my view, this submission finds no traction in the record. The concern of the Divisional Court in sending the sanction back for reconsideration was that the court could not determine whether the sanction would have been the same if the issues of fabrication and falsification by the applicants were, in essence, removed from the equation. In the decision on the Reconsidered Sanction, Drs. Paige and Chan make it clear that they did not reach their decision on sanction based on the applicants having been personally involved in the fabrication and falsification. Rather, they said that they faulted the applicants for failing to "control publication quality, which subsequently led to fabricated and falsified images being included as part of published research".

[35] On appeal, Dr. Pisters found that the Reconsidered Sanction was reasonable. He specifically noted that, had findings of fabrication or falsification directly by the applicants been made, a more serious sanction would have been called for. At the same time, he said that the Reconsidered Sanction struck "an appropriate balance in the circumstances". Dr. Pisters found that the Reconsidered Sanction was necessary to convey to the applicants and to "the larger UHN research community" the seriousness of the misconduct.

[36] I am unable to find that the conclusion reached by Dr. Pisters upholding the Reconsidered Sanction is an unreasonable one. It falls within "a range of possible, acceptable outcomes which are defensible in respect of the facts and law": *Dunsmuir v. New Brunswick*, [2008] 1 S.C.R. 190 at para. 47. The findings of research misconduct were serious, especially within the scientific research community. The respondent would have a legitimate interest in protecting its reputation and in being seen as treating the findings with the seriousness that they deserved. Further, given that there were other allegations outstanding that needed to be investigated and determined, the respondent was required to take action that would preclude any repetition of the conduct pending the results of that further inquiry. Suspending the actions of the applicants' laboratory, in the interim period, was a reasonable response to the situation. I would also note, on this point, that the applicants did not suggest what lesser penalty would have been more appropriate.

[37] Lastly on this issue, the applicants assert that the Reconsidered Sanction improperly considered the fact that the applicants had failed to express remorse and acknowledge wrongdoing. I do not agree. The applicants reliance on cases that establish that a person charged with an offence is entitled to make full answer and defence, without that being used against them on penalty, conflates too different concepts. It is true that the fact that a person mounts a vigorous defence cannot be used to increase the penalty that is applied. However, it is also well recognized that a person cannot expect to have the penalty reduced when no remorse is expressed or acknowledgment of wrongdoing made. It is not that the lack of remorse is an aggravating factor but rather that it represents the absence of a mitigating factor. In my view, it is clear that it was in this respect that the lack of remorse was used in the Reconsidered Sanction.

V: The decision of the Second IC

[38] I now turn to the challenge to the decision of the Second IC which is the more complicated of the two issues before this court.

[39] The applicants challenge the decision of the Second IC on a number of grounds, which I would summarize as follows: (i) the Second IC improperly dismissed or failed to consider the three expert reviews that the applicants provided in response to the draft report; (ii) inadequate reasons were provided by the Second IC and by Dr. Pisters on the appeal; (iii) the findings of fabrication and falsification are unreasonable; and (iv) there was a reasonable apprehension of bias on the part of Dr. Pisters.

A. The expert reviews

[40] The applicants' main complaint on this ground appears to be that the Second IC did not address, in detail, the observations that the three reviewers made on the findings that were set out in the draft report. More particularly, it appears that it is the views of the two physician reviewers, and not so much the reviewer who dealt with the technicalities of image processing, that are at the heart of this complaint.

[41] First, there was no obligation on the Second IC to set out in great detail why it concluded that the views of the reviewers did not change their preliminary conclusions. There is no rule that

any adjudicator must deal with every aspect of the evidence that s/he hears. It is sufficient if it is clear that the evidence was considered and addressed. As Abella J. said in *Newfoundland and Labrador Nurses' Union v. Newfoundland and Labrador (Treasury Board),* [2011] 3 S.C.R. 708 at para. 16:

> Reasons may not include all the arguments, statutory provisions, jurisprudence or other details the reviewing judge would have preferred, but that does not impugn the validity of either the reasons or the result under a reasonableness analysis. A decision-maker is not required to make an explicit finding on each constituent element, however subordinate, leading to its final conclusion [citation omitted].

[42] The Second IC responded to the comments made by the applicants in response to the draft report, in its Addendum III. In that Addendum, the Second IC expressly states:

> The Committee acknowledges the observations and opinions expressed by the reviewers, but nevertheless stands behind its finding of research misconduct on the grounds of material non-compliance with accepted standards.

The Second IC makes other references to the views of the reviewers in later portions of Addendum III. Consequently, I am satisfied that the Second IC considered those views.

[43] It should also be remembered, in considering this issue, that the Second IC was comprised of persons who were as expert in the matters being considered as were the two reviewers whose views were put forward by the applicants. In other words, this was not a situation where one side put forward expert opinions and the other side did not. The whole point of the composition of these investigative committees is to have people with the necessary expertise investigating the issues raised. I note in that regard that the applicants were told of the persons who would form the Second IC and did not pursue any issue as to their qualifications.[2]

[44] Dr. Pisters, in dismissing the appeal from the decision of the Second IC, made this very same point. He said, in part:

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[2] I am aware that the applicants raised some issue regarding bias respecting one member of the Second IC, Dr. Greenberg, but that complaint did not go to the qualifications of the person. Further, the applicants did not, at any time prior to the release of the decision of the Second IC, provide any further substantiation of their allegation of conflict on Dr. Greenberg's part.

> In particular, there is nothing in the materials that would establish that either Dr. Ho or Dr. Poussier was in any better position than were any of the members of the IC to review and consider the evidence, and to make findings based on that evidence.

[45] Also on this point, it is important to know that these two reviewers largely agreed with the concerns that the Second IC identified in the figures and images that were the subject of the investigation. Where the two parted company was with respect to their opinions on the seriousness of the concerns. For example, Dr. Ho said in his July 21, 2016 letter:

> In closing, while I agree with most of the observations of this Committee report, for the difference in opinions on the issues listed above, I have arrived at very different conclusions than that of the committee.

[46] Differences of opinion do not constitute one opinion reasonable and the other unreasonable. They simply represent different views. The Second IC was entitled to take the view that they did and not substitute the view that these two reviewers had for their own. It is well-established that on judicial review, it is not sufficient to simply establish that another reasonable view was open to the adjudicator. Rather, the applicants must show that the view adopted by the adjudicator was an unreasonable one: *McLean v. British Columbia (Securities Commission)*, [2013] 3 S.C.R. 895 at para. 41.

[47] On this point, I accept that the statement in Addendum III that the Second IC "has no knowledge of what information was before the independent reviewers when they prepared their respective reports" is not an entirely accurate one. While Dr. Ho does not expressly set out what material he reviewed, Dr. Proussier does set out in his report the material that he reviewed. That misstatement is not fatal to the result reached by the Second IC, however. The difference in opinion between the Second IC and the applicant's experts is evident on the record. The report of the Second IC also makes it clear why it reached the conclusions that it did.

[48] The applicants also contend that the Second IC "ignored" the applicants' response to the draft report. I do not see the basis upon which the applicants advance that contention. Addendum III is a direct response to the applicant's comments on the draft report. It succinctly responds to the applicants' positions under six different headings. It concludes by saying:

> In summary, after fulsome examination of the examples that were brought to the attention of the Committee, there is no basis for altering the Committee's conclusion.

[49] What appears to underlie the applicant's contention is the fact that Addendum III did not address item by item, detail by detail, the applicants' response. As I set out above, the Second IC was not required to do so. All that the Second IC was required to do was to take the applicant's responses into consideration. A fair reading of the final report clearly establishes that that was done. I would note, in that regard, that the final report, with appendices, is over five hundred pages in length.

[50] In my view, the applicants have failed to establish that the views of their experts were not given proper consideration. The further assertion that there was some procedural unfairness in the manner in which the Second IC dealt with this evidence does not find any support in the record.

B. Adequacy of reasons

[51] The applicants submit that the reasons of the Second IC, and the related appeal decision, are "wholly inadequate". To a large degree, this complaint repeats the essence of the complaint made regarding the treatment of the letters from the applicants' experts and the applicants' response to the draft report, that I have just finished addressing.

[52] On this point, the applicants place primary reliance on the decision of this court in *Fanshawe College of Applied Arts and Technology v. Ontario Public Service Employees Union*, [2013] O.J. No. 391 (Div. Ct.). In my view, the two cases are not comparable. In *Fanshawe*, this court described the reasons of the arbitrator as "unintelligible on their face". The court later referred to the reasons as "incomprehensible". The reasons in this case cannot be even remotely so characterized. The report of the Second IC is detailed and extensive and thoroughly reviews the issues that were before it. The appeal reasons are similarly thorough.

[53] Further, as noted in *Fanshawe*, the adequacy of reasons is not a stand-alone basis for quashing a decision. Rather, the reasons must be read with the result, supplemented as necessary from the record, to determine the reasonableness of the result. Again I quote from Abella J. in

Newfoundland and Labrador Nurses' Union v. Newfoundland and Labrador (Treasury Board) at para. 14:

> It is a more organic exercise - the reasons must be read together with the outcome and serve the purpose of showing whether the result falls within a range of possible outcomes.

[54] Finally, the applicants' submission that the court cannot supplement the reasons to assess their reasonableness is directly contrary to the authority set out in *Newfoundland and Labrador Nurses' Union v. Newfoundland and Labrador (Treasury Board* at para. 12, that a reviewing court must first seek to supplement the reasons "before it seeks to subvert them".

C. The findings of fabrication and falsification are unreasonable

[55] The Second IC found instances of what it characterized as fabrication and instances of falsification. The Second IC expressly said that it could not determine who had committed these instances of falsification and fabrication. The Second IC also expressly said that it was could not conclude whether the applicants had any direct or indirect personal involvement in those actions. However, the Second IC concluded that the applicants ultimately bore responsibility for what had occurred because they were "principal investigators, senior authors and research leaders". The Second IC consequently concluded that the applicants had committed research misconduct within the meaning of the Policy "on the grounds of Material Non-Compliance with accepted standards and regulations".

[56] The applicants challenge the falsification findings on the basis that the figures and images were, in fact, supported by the primary data. With respect, that is not the test under the Policy. The test under the Policy is whether the research results are accurately represented in the research findings, conclusions or records as portrayed in the publication. The applicants' submissions in this regard appear to mirror the submissions that they made in their challenge to the decision of the First IC, which this court also rejected. In *Asa v. University Health Network* (2016), 129 O.R. (3d) 94 (Div. Ct.), Sachs J. said, at para. 52:

> With respect to the Applicants' submission that to be guilty of falsification or fabrication the discrepancies must be shown to have changed the results or

> conclusions, the Committee quite properly found that the Research Policy does not contain this requirement.

[57] There does not appear to be any serious dispute that some of the images, at least, were manipulated. The applicants own experts acknowledge that fact. For example, Dr. Poussier referred to some of the figures being "embellished for publication". The applicants themselves acknowledged problems with some of the images. In their response to the draft report, the applicants said that:

> ... they recognize and acknowledge that errors are present in several of the images.

[58] The Second IC concluded on the issue of falsification, as follows;

> Based on these definitions, and on the contents of the applicable policies, it is the view of the Committee that any form of enhancement and/or manipulation that removes, obstructs or adds data, as well as inaccurate labeling of images, results in the misrepresentation of the primary data and would constitute Falsification. Specifically, Falsification includes the creation of any irregularity that prohibits the primary data from being accurately represented.

[59] In light of the acknowledgement that some of the images were manipulated, it is difficult to see how that conclusion could be seen as being anything other than a reasonable one.

[60] On the issue of fabrication, the applicants contend that for fabrication to be found, the Second IC had to determine how the changes to the images were made and whether they were made intentionally. The applicants further contend that if the changes were the result of the image preparation process, those changes would fall under the honest errors/differences exception in the Policy.[3]

[61] There are two difficulties with the applicants' contentions in this respect. One is that it is difficult as a general proposition to conclude that the types of changes found by the Second IC to have been made to the images could have been made other than intentionally. The other is that the contention that the image preparation process was the source of the changes was expressly considered and rejected by the Second IC.

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[3] Applicants' factum, para. 143

[62] On this latter point, the applicants place almost exclusive reliance on the opinions offered by their third expert, Mr. Lo. However, the opinion of Mr. Lo does not establish issues with the image preparation process as the explanation for the image manipulations. All that Mr. Lo says throughout his report is that differences in the images "could" be the result of differences in equipment and software. Mr. Lo acknowledges in his report that when he was asked to look at the equipment that was actually used, he was told that most of the equipment belonged to other persons and "many of the devices are no longer available" for him to examine. Consequently, Mr. Lo was not in a position to test his theory that the equipment or software caused the manipulation of the images.

[63] The Second IC considered Mr. Lo's proffered explanation for the differences in the images and rejected it. In that regard, it is important to know that the Second IC had its own technical expert available to it on these matters – an expert whose qualifications the applicants had earlier stated that they had no issue with. The Second IC rejected the equipment/software explanation, in part, because:

> ... the changes identified were not homogeneous within and among figures. Non-homogenous changes would not be expected if the irregularities had been caused by these different image processing software platforms.

[64] The Second IC considered this possible explanation for the differences in the images. They rejected the explanation on a basis that was responsive and reasonable. The applicants cannot undermine that conclusion based on an alternative explanation that is unproven and speculative.

[65] The central finding by the Second IC was that the applicants had engaged in research misconduct as the result of material non-compliance with accepted standards. I set out the actual finding of the Second IC as follows:

> The committee has determined that Drs. Asa and Ezzat have failed, over a period of 8 years, to comply with standards accepted by the scientific community and as outlined by journal policies, as well as to provide lab oversight including accountability for primary data. Each of these failures constitute research misconduct on the grounds of material non-compliance with accepted standards.

[66] The applicants challenge this core conclusion of the Second IC on essentially two bases. One is the contention that the Second IC did not set out or enunciate the standards that it said that

the applicants failed to comply with. The other is that the applicants were entitled to rely on their research staff to ensure that the figures and images were properly prepared and the applicants are not responsible if their research staff failed in those duties.

[67] The first challenge to the finding of the Second IC is refuted by the contents of the report itself. The report refers to the standards. Indeed, it outlines the concerns that have been raised about image preparation since the late 1990's. By way of example, the Second IC made the following observations:

> (a) By 2005/06, many journals had legitimate concerns that the prevalence of image processing would creep into scientific imaging and this was a significant threat to the scientific integrity that needed to be addressed.... [guidelines] generally required that authors disclose all electronic image processing done to a particular image, and avoid any non-linear image manipulations, whether the changes alter the final conclusions or not.
>
> (b) As such, the prevalence of electronic image processing in the early 2000's and its threat to scientific integrity, the existence of several full and frank editorials and consultations, as well as significant changes to journal authorship guidelines to address these concerns leads the Committee to believe a reasonable scientist in the field should have been well aware that image processing guidelines were either going to be implemented or already in effect in many key journals.
>
> (c) The applicable standards and policies require that images published must be actual images of the experiments as performed, with any alterations being disclosed in the figure legend. The applicable standards and policies also require that any alterations be limited to those accepted by the journal publication policy and are otherwise in accordance with the standard prevailing in the scientific community.

[68] The Second IC also included, as an appendix to its report, various articles that have been written on the subject of image integrity, and the risks associated with it. Indeed, one of those articles from The Journal of Cell Biology (published in July 2004) addressed a number of the problems with image manipulation of exactly the type that occurred in this case.

[69] In that article, the authors began with a warning to all research scientists. The authors said:

> It is now very simple, and thus tempting, to adjust or modify digital image files. Many such manipulations, however, constitute inappropriate changes to your original data, and making such changes can be classified as scientific misconduct.

[70] The authors then went on to give some examples of inappropriate alterations to images of the very type that occurred in this case. The authors said:

- No specific feature within an image may be enhanced, obscured, moved, removed, or introduced.
- Deleting a band from a blot, even if you believe it to be an irrelevant background band, is a misrepresentation of your data.
- While it is acceptable to adjust the overall brightness and contrast of a whole image such adjustments should not obscure or eliminate any information present in the original.

[71] The authors then concluded with another warning:

> It is very tempting to use the tool variously known as "Rubber Stamp" or "Clone Stamp" in Photoshop to clean up unwanted background in an image (Fig. 4). Don't do it. This kind of manipulation can usually be detected by someone looking carefully at the image file because it leaves telltale signs. Moreover, what may seem to be a background band or contamination may actually be real and biologically important and could be recognized as such by another scientist.

[72] The applicants contend that the Second IC did not identify the standard that it was applying to reach the conclusions that it did. That contention does not find support in the record. The report of the Second IC devotes an entire section to the issue of the standards for responsible conduct of research. It refers to the Policy, specific journal standards, to the Nature Publishing Group Standards and to the standards set by the journal, Molecular and Cellular Biology. With respect to the Nature Publishing Group, the Second IC notes that those standards "have not changed from 2006 through 2015". With respect to the Molecular and Cellular Biology, the second IC set out specific instructions it gives to authors regarding image manipulation. It is, in my view, quite clear what standards the Second IC was applying in determining whether there was research misconduct in this case.

[73] The other basis for challenging the conclusion of the Second IC is that the applicants were entitled to rely on their research staff to ensure that the images were accurate. The applicants do not refer to any authority for the proposition that the applicants, given their positions, are not to be held responsible for the work of people in their laboratory. The Second IC concluded, properly in my view, that:

> On the basis of the evidence reviewed, the Committee has concluded that Drs. Asa and Ezzat ultimately bear responsibility for the integrity of the publications emanating from their laboratory and, based on the findings of the Committee regarding the specific images at issue, for the irregularities found to exist in the images. Dr. Ezzat was an author on all five of the papers, and Dr. Asa on four of the five papers. In each of the publications in question, either Dr. Asa or Dr. Ezzat was the senior author and was therefore primarily responsible for the final review of the paper and images, and ultimately the submission of the manuscript.

[74] The Second IC was entitled to reach a conclusion that differed from Dr. Ho who said, in one of his reports, that the applicants had "struck a good balance between supervision and training" in relation to their research staff. It is worthy of note on this point that Dr. Ho did not have any actual knowledge or experience with the operation of the applicants' laboratory. Indeed, Dr. Ho himself says in his June 27, 2016 report:

> In my opinion, it is quite difficult to comment objectively on Drs. Asa's and Ezzat's roles as senior authors with respect to image preparation, staff oversight and primary data retention without actually observing the operation of their laboratory and speaking directly with their staff.

[75] I recognize that the standard applied by the Second IC with respect to the responsibility to be borne by principal investigators is a high one. However, it was entirely within the purview of the respondent and its Policy to decide on the appropriate standard. As the Second IC said in its report:

> The persistent incidence of serious irregularities (many of which appear to have been deliberately caused or created by someone working in the laboratory) over a period in excess of eight years indicates serious flaws in data scrutiny and vetting by the principle investigators, to meet their responsibility for ensuring compliance with accepted standards of published materials.

[76] I fail to see any basis upon which this court could conclude that the adoption of this high standard was unreasonable. Indeed, the determination of the standard would appear to be something that the respondent, through its processes under the Policy, is uniquely suited to determine.

[77] I have directed most of my observations on this point to the report of the Second IC since that is where the detailed examinations and conclusions are found. In doing so, I do not ignore the appeal decision from the report of the Second IC. In his appeal decision, Dr. Pisters reviews these

same issues in some detail. He notes, as I have, that the Second IC engaged "in a lengthy and detailed discussion about appropriate standards". Dr. Pisters also concluded that it was reasonable for the Second IC to hold the applicants responsible for what occurred in their laboratory. Dr. Pisters said:

> Rather the IC has imposed on each of you an overarching responsibility, based on the research positions you occupied and the specific roles that you played in relation to the papers in question, to ensure that the practices followed in your laboratory met appropriate standards, and that the staff working under your supervision were provided with meaningful training and oversight.

[78] I cannot find anything unreasonable in the review and conclusions reached by Dr. Pisters with respect to the applicants' appeal.

[79] Finally, in this section, I should mention that the Second IC found that there were a number of instances where primary data could not be found. The failure to maintain primary data is, itself, an issue of material non-compliance. The applicants did not contest that some primary data was missing. They merely complained that trainees who had worked under them in their laboratory must have removed the primary data. Not only was there no foundation established for this assertion, the Second IC noted that that explanation did not account for the fact that the respondent's policy "required the Principal Investigators to maintain stewardship of the primary data for the duration of their employment at UHN".

D. Reasonable apprehension of bias

[80] The applicants contended, on their appeal of the report of the Second IC, that there existed a reasonable apprehension of bias with respect to Dr. Pisters dealing with the applicants' appeal. In particular, the applicants pointed to the fact that Dr. Pisters had heard and determined the appeal from the report of the First IC, and had heard and determined the appeal from the Reconsidered Sanction.

[81] When the allegation of bias was raised, Dr. Pisters sought independent advice from the Honourable Stephen Goudge, Q.C. on the issue. The Hon. Mr. Goudge expressed the opinion that no reasonable apprehension of bias arose in the circumstances. The applicants make essentially two complaints with respect to this action by Dr. Pisters. One is that Dr. Pisters basically delegated

the decision on this issue to Mr. Goudge rather than making his own decision. The other is that the applicants were excluded from the process by which this advice was obtained from Mr. Goudge and, in particular, that they were prevented from making submissions to Mr. Goudge before he gave his advice.

[82] The applicants are unable to point to any facts that would substantiate their first complaint. Dr. Pisters addressed the bias issue at the outset of his reasons dismissing the appeal. While his conclusion rejecting the bias allegation corresponds with the advice that he received from Mr. Goudge, there is nothing in the record that supports the contention that Dr. Pisters did not reach his own independent decision on the issue. The mere fact that there is a correspondence between the advice and the decision is insufficient to sustain that contention.

[83] With respect to the second complaint, I do not know of any authority that would establish that persons in the position of the applicants are entitled to be made aware of, and participate in, the process by which an adjudicator obtains advice regarding an issue such as an allegation of bias. Counsel for the applicants conceded that he could not point to any such authority. Dr. Pisters was entitled to obtain advice from whomsoever he chose. Indeed, he might well have sought advice from more than one person. For example, he might have sought advice from counsel in which case the discussions would be privileged.

[84] I see no merit in the bias allegation. Dr. Pisters is the Chief Executive Officer of the respondent. The policy expressly requires him to decide on appeals from decisions reached by investigative committees under the Policy. There is nothing in the decisions that Dr. Pisters has rendered on the appeals that suggests any animus towards the applicants or suggests that other extraneous and inappropriate considerations have motivated his conclusions. The standard for a finding of a reasonable apprehension of bias is not met: *Committee for Justice and Liberty v. National Energy Board*, [1978] 1 S.C.R. 369 at p. 394.

VI: Conclusion

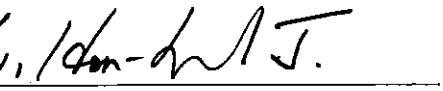
[85] The applicants have failed to identify any failings in either of the appeal decisions that would render them unreasonable. The application for judicial review must be dismissed.

[86] The respondent is entitled to its costs of this appeal fixed in the agreed amount of $30,000 inclusive of disbursements and HST payable by the applicants.

NORDHEIMER J.

I agree 

R. SMITH J.

I agree 

WILTON-SIEGEL J.

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DIVISIONAL COURT FILE NO. : 018/17

ONTARIO
SUPERIOR COURT OF JUSTICE
DIVISIONAL COURT

NORDHEIMER, R. SMITH
& WILTON-SIEGEL JJ.

BETWEEN:

SYLVIA ASA and SHEREEN EZZAT

Applicants

– and –

UNIVERSITY HEALTH NETWORK

Respondent

REASONS FOR JUDGMENT

NORDHEIMER J.

Date of Release: JUL 13 2017