

REPORTED  
IN THE COURT OF SPECIAL APPEALS  
OF MARYLAND

No. 00600

September Term, 2014

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DANIEL S. YUAN

v.

JOHNS HOPKINS UNIVERSITY

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\*Zarnoch,  
Friedman,  
Thieme, Raymond G., Jr.  
(Retired, Specially Assigned),

JJ.

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Opinion by Zarnoch, J.

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Filed: April 27, 2016

\* Zarnoch, Robert A., J., participated in the conference of this case while an active member of this Court; he participated in the adoption of this opinion as a retired, specially assigned member of this Court.

The key issue in this case is whether appellant Dr. Daniel S. Yuan has clearly identified a state public policy mandate for his common law wrongful discharge claim for damages against appellee Johns Hopkins University (JHU or Hopkins). The premise of Yuan’s claim is that he was discharged for reporting “research misconduct”—reporting protected from retaliation by 42 U.S.C. § 289b and 42 C.F.R. Part 93. For reasons more fully set forth below, we conclude that the broad language and complex nature of these federal provisions, their deference to institutions, such as Hopkins, for the prevention and detection of research misconduct, and the difficult line they draw between scientific errors and wrongdoing and between falsity and fraud, make this a poor State public policy vehicle to carry a wrongful discharge action. Because the Circuit Court for Baltimore City did not err in rejecting this claim and others advanced by Yuan, we affirm.

### **FACTS AND PROCEEDINGS**

Yuan’s 149-paragraph amended complaint sets forth a complicated tale of an employee who refused to be ignored. The following represents an abridgment of Yuan’s many allegations.

Board-certified in both General Pediatrics and Pediatric Gastroenterology, Yuan was a researcher at the JHU School of Medicine. After clinical training and a research stint at the National Institutes of Health (NIH), he joined the Pediatrics Faculty at JHU School of Medicine. Having worked extensively in the field of yeast research since 1993, he eventually joined the lab of Dr. Jef Boeke, a Professor in the Department of Molecular Biology and Genetics, in 2001.

Boeke's lab received most of its funding through the NIH. From February 2002 through June 2011, the NIH gave over \$11.8 million to the lab for research on "SLAM," "an ambitious yeast genetics research project using a novel methodology."<sup>1</sup> The NIH also provided a \$34 million grant to fund a separate project related to the SLAM research. From July 2001, Yuan worked in Boeke's lab, where his initial responsibility in the SLAM project was to develop the computational infrastructure to manage the massive datasets that SLAM would generate.

Yuan expressed to the team his concern that contaminating traces of DNA from preceding SLAM experiments had led to false positive results. They, however, resisted Yuan's suggestions for addressing this problem and began to withhold data files from him.

Yuan stated that from 2005 through 2011, he "repeatedly reported research misconduct with the yeast genetics research that was caused by falsification of the research results." On November 28, 2005, Yuan wrote to Boeke about problems he identified in research performed by Xuewen Pan, a post-doctoral fellow in Boeke's lab. In an email exchange, Yuan complained about the research, stating that Pan's "genes are preselected," and that continuing with those research projects "will only generate more useless data." He also stated that the SLAM team had already established that "most of the [matches] being identified are bogus."

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<sup>1</sup> SLAM stands for Synthetic Lethality Analyzed by Microarray. Among the goals of the SLAM project were to study the genetic interactions of mutations and to extend this methodology from yeast to higher organisms.

In early 2006, Pan's research was published in *Cell*, a biomedical journal, with Boeke as the senior author. Boeke cited Pan's research when he applied for grant renewals through the NIH. Later in 2006, after the NIH renewed funding for the SLAM project, Boeke issued a new organizational chart "which had the effect of excluding Dr. Yuan from extensive involvement with the SLAM research." Yuan states that he "protested his lack of a definite professional role in the SLAM Project" and "found himself increasingly marginalized and excluded from the data management."

From 2006 to 2008, Boeke's SLAM research was not successful. Boeke asked a colleague to perform a large retrospective analysis of the production data, which showed an extraordinarily high "False Discovery Rate." In the summer of 2008, Boeke decided not to renew his NIH grant for SLAM, although funding for prior grants would continue into 2010.

In a 2009 analysis of Pan's microarray data, Yuan found that Pan could not have obtained the results he claimed, but that his "conclusion was not that Dr. Pan fabricated the results; instead, Dr. Pan likely conducted the experiment with preconceptions of the results he wanted to find – and then managed to find those results." Yuan reached a similar conclusion with respect to a paper published by Dr. Yu-yi Lin in *Genes & Development*. In January 2009, Yuan notified Boeke and SLAM's project manager of these problems with the Pan 2006 and Lin 2008 papers.

In December 2009, Boeke informed Yuan that he would not be renewing his faculty contract for 2011, unless he secured self-sustaining funding within the next year.

Although Boeke claimed this was due to a lack of funding, at the same time, Boeke established positions for three other individuals who had worked on SLAM full-time.

On January 15, 2010, at a seminar in the Boeke lab, Yuan said that ten months earlier, he had discovered “bizarre zigzag patterns after plotting data for individual genes in SLAM’s Production data in chronological order.” He concluded that these changes “were both non-random and unpredictable” and that the “zigzags were also large enough to masquerade as the genetic interactions SLAM was looking for.”

On June 29, 2010, in the last week of the NIH funding of SLAM, Yuan wrote to Boeke that he had analyzed the production team’s last 118 experiments, finding that about 10 percent had “noise” (bad data) with no apparent cause and only about 10 percent “looked pretty good.”

On December 14, 2010, Dr. Carol Greider, the director of the Department of Molecular Biology and Genetics, offered Yuan a part-time support staff position for the 2011 year, at a salary of \$24,800, well below his salary as a researcher. Yuan accepted the position. However, from January 2011 on, Boeke excluded Yuan from activities in the lab.

On April 29, 2011, Dr. Lin, now at National Taiwan University, conducted a seminar in Dr. Boeke’s lab. Yuan asked Lin a number of questions to which Lin and Boeke did not provide adequate responses.

On June 29, 2011, Yuan submitted a manuscript for publication in which he listed himself as the sole author. Greider issued a written reprimand to Yuan for failing to offer Boeke shared authorship of the manuscript. On July 8, 2011, Yuan met with Joan

Johnson, a Human Resources representative for JHU School of Medicine to discuss his concerns about Greider's reprimand. He explained that his employment problems arose in the context of the lack of results produced in the lab, despite over \$12 million in NIH funding and the "inexplicable vehemence" that Boeke and Greider exhibited towards him. On December 22, 2011, JHU denied Yuan's grievance appeal.

Yuan's employment was scheduled to end on December 31, 2011. Prior to this date, he requested a property pass from Boeke, so he could move his research collection of archived cells out of the lab. Boeke refused to grant him the property pass until the two had "come to an understanding of all the issues" relating to which files and materials Yuan could remove. On November 29, 2011, JHU, through an attorney, informed Yuan that he could remove "biological samples and data" without prior permission. Yuan had in his archives, prior to his departure, about 2,000 samples, occupying less than two cubic feet of freezer space.

On November 30, 2011, Yuan requested an affidavit or other confirmation that Boeke would give Yuan free access to Yuan's archived cells for a period of five years. Although Boeke initially accepted this modified request, JHU did not provide access.

On December 14, 2011, Boeke notified Yuan that his office had been emptied and his possessions had been locked. On December 15, 2011, Yuan, after seeking access to his materials, was escorted from the workplace by JHU Security Officers.

Subsequent to his departure from JHU, Yuan interviewed for other positions at JHU, but was not hired. Beginning in September 2011, Yuan looked for employment outside JHU. Soon after, Yuan was invited to interview for a position at ComputerCraft.

He was told that his *curriculum vitae* had been received favorably by other employees and that he was invited to prepare a brief talk and to stay for a few hours to interview. On December 18, Yuan asked, through an e-mail, for Dr. Beverly Wendland from JHU to speak as a reference on his behalf; he never received a response. Yuan stated that upon “information and belief, after ComputerCraft contacted Dr. Wendland (and possibly others at JHU),” they “provided a negative reference for him.”

Early in 2012, a “Letter” (equivalent to a research paper) was published in the journal *Nature*, listing Lin and Boeke as the authors. After reviewing the paper, Yuan believed that there were serious conceptual errors in it. Specifically, he concluded that the data underlying the paper was not reproducible.

On May 14, 2012, Yuan, through counsel, informed Ronald J. Daniels, the president of JHU, and Edward D. Miller, the president of the School of Medicine, about “serious scientific problems” in the paper, including

a near-total lack of correspondence between the genetic interactions identified in this paper and the raw datafiles from which those genetic interactions were supposedly derived. The assertions made in this paper, that its new microarray methodology provided data for the “genome-wide” identification of genetic interaction, *appears to be false*. Significantly, this is the same type of problem that has beset the SLAM project for the entire duration of its production phase.

(Emphasis added).

On May 21, 2012, Patricia L. McClean, JHU senior associate general counsel, responded, “[t]he School of Medicine is looking into the allegations of research misconduct made in your letter under its Procedures for Dealing with Issues of Research

Misconduct.” No one from JHU sought to interview Yuan or obtain further information from him.<sup>2</sup>

On July 24, 2012, Yuan forwarded a “Communication Arising” (*i.e.*, a rebuttal) to Lin and Boeke’s *Nature* article. Neither doctor responded to Yuan. On August 8, 2012, Yuan received an email sent from Lin’s email account stating, “Dr. Yuan, Yu-yi [Lin] passed away this morning. Now you must be very satisfied with your success. Congratulations[.]” Lin had died from an apparently self-administered overdose of sedatives. In previous days, he had attempted to jump off a building and his wife stated that he was concerned about a “conduct-of-research” case.

On February 11, 2013, Yuan received an email from Boeke asking if he would be willing to sign a “correction” to the 2006 *Cell* paper, which stated that “the fraction of genetic interactions that could be traced back to the paper’s SLAM-based microarray data was 75 percent, not 90 percent as originally stated.” The next day, Yuan informed Boeke that he would not sign the proposed corrections, but Boeke submitted them. The paper was submitted to *Cell*, which published it as an “Erratum” on May 23, 2013.

On November 6, 2013, the *Nature* paper was also retracted, without a “correction.” Boeke admitted that “the Methods section in our Letter is inaccurate, and that for 38% of the interactions found by the primary screen there was discordance in sign,” which confirmed Yuan’s findings.

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<sup>2</sup> The record does not disclose the result of JHU’s inquiry, although our assumption is that Hopkins rejected Yuan’s contentions.



On December 13, 2013, Yuan filed a complaint for damages against JHU in the Circuit Court for Baltimore City, alleging wrongful termination in violation of public policy. Yuan based his wrongful discharge action on 42 C.F.R. § 93.100 et seq., which establishes a federal administrative mechanism to police intentional, knowing, or reckless “research misconduct” that represents “a significant departure from accepted practices of the relevant research community.” *Id.* at § 93.104.<sup>3</sup> He also asserted claims for conversion, and tortious interference with prospective economic advantage. On March 14, 2014, JHU filed a motion to dismiss or, in the alternative, motion for summary judgment and request for a hearing. On May 12, 2014, the court held a hearing and then, dismissed Yuan’s claim. Judge Lawrence Fletcher-Hill concluded:

Dr. Yuan has failed to allege with sufficient specificity either that he objected to research misconduct or that even if he had that those particular objections in the context of this case would amount to a violation of a clearly established public policy. There are two issues with the complaint. There certainly are ample allegations that Dr. Yuan raised and continued to raise issues within his lab with Dr. Boeke and with others about the conclusion being reached by the research, [and] the manner in which the research was conducted. But the allegations very carefully skirt the line of fraud, falsification of data or manipulation of data.

And it is a good illustration of why this tort needs to be drawn narrowly [so] that it does not amount to the opportunity for courts to litigate debates, intellectual debates within the scientific community about methodology or research methods or conclusions. Based on the allegations, even giving them full credit, until after Dr. Yuan was fired, his objections amounted to those types of intellectual debates and challenges within the lab.

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<sup>3</sup> This regulation is authorized by a 1993 federal statute. *See* 42 U.S.C. § 289b; and p.15, *infra*.

Relying on the Court of Appeals’s decision in *Parks v. Alpharma, Inc.*, 421 Md. 59 (2011), Judge Fletcher-Hill stated:

[W]hile there’s no question that academic integrity and research integrity is an important value, I conclude that it does not rise to the level that the Court of Appeals would recognize as the clear public policy necessary to support [a] cause of action for the tort of wrongful discharge in Maryland.<sup>[4]</sup>

The circuit court rejected Yuan’s conversion claim:

[A]lthough it may be that there is a policy at Johns Hopkins University to on a case-by-case basis allow research material or research data to be released for the individual or non-Hopkins use by researchers who have developed it at Hopkins, the basic policy, which is clearly stated and has not been challenged here, is that Hopkins asserts its ownership of all research material and all research data that has been developed within labs of the University.

Judge Fletcher-Hill added: “Hopkins could not have converted what it in fact had ownership of.”

Finally, turning to the tortious interference count, the court said:

[T]he plaintiff has agreed that that count is limited to the fourth job, the one in private industry, that Dr. Yuan alleges he did not get. However, he has not alleged any specific facts to establish who at Hopkins said what to whom or how that affected his chances to get that job; and therefore, the allegations are insufficient to sustain that cause of action.

From the judgment of the circuit court, Yuan filed a timely notice of appeal.

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<sup>4</sup> The trial court granted the motion to dismiss Yuan’s wrongful discharge claim on two grounds: (1) that he failed to identify a public policy exception to the at-will employment doctrine; and (2) that even if he had identified a public policy exception, he failed to sufficiently plead it. Because of our resolution of the first, we need not reach the second.

## QUESTIONS PRESENTED

Yuan presents the following questions:

1. Did the Circuit Court err in dismissing Dr. Yuan's wrongful termination in violation of public policy claim by deciding facts and inferences against the plaintiff, but in favor of defendant, in concluding that his reports of research misconduct did not rise to the level of reporting falsification or fabrication, contrary to the well-pled allegations of his complaint?
2. Did the Circuit Court err in dismissing Dr. Yuan's wrongful termination in violation of public policy claim by refusing to recognize the federal statute and regulations prohibiting research misconduct as sources of public policy?
3. Did the Circuit Court err in dismissing Dr. Yuan's conversion claim where JHU's policy governing research materials expressly recognized that research materials belong to the researcher, not the university, given that the only other Maryland court to decide this issue recently ruled to the contrary?
4. Did the Circuit Court err in dismissing Dr. Yuan's tortious interference claim, where the court improperly assumed all reasonable inferences against Dr. Yuan rather than draw reasonable inferences from the well-pled allegations of his complaint, *i.e.*, that his former supervisor and other JHU administrators had the opportunity and motivation to interfere with his prospective employment opportunities?

JHU poses the questions as:

1. Did the court err in dismissing Yuan's wrongful termination claim by concluding that his complaint failed to establish that he had reported falsification or fabrication, and that his complaint failed to establish that his termination violated public policy?
2. Did the court err in dismissing Yuan's conversion claim given that Hopkins' policy recognized that researchers owned their research materials?
3. Did the court err in dismissing Yuan's tortious interference with contract claim, when the court refused to accept Yuan's allegations that Hopkins

had the opportunity and motivation to interfere with his prospective employment opportunities?

## **DISCUSSION**

### **STANDARD OF REVIEW**

On appeal from a dismissal for failure to state a claim, we must assume the truth of, and view in a light most favorable to the non-moving party, all well-pleaded facts and allegations contained in the complaint, as well as all inferences that may reasonably be drawn from them, and order dismissal only if the allegations and permissible inferences, if true, would not afford relief to the plaintiff, *i.e.*, the allegations do not state a cause of action for which relief may be granted. We must confine our review of the universe of “facts” pertinent to the court’s analysis of the motion to the four corners of the complaint and its incorporated supporting exhibits, if any. The well-pleaded facts setting forth the cause of action must be pleaded with sufficient specificity; bald assertions and conclusory statements by the pleader will not suffice. Our goal, in reviewing the trial court’s grant of dismissal, is to determine whether the court was legally correct.

*Parks*, 421 Md. at 72 (Internal quotations marks and citations omitted).

Legal questions, such as whether a law creates a clear public policy mandate for the purpose of a wrongful discharge action, are reviewed *de novo*. *McCrimmon v. State*, 225 Md. App. 301, 306 (2015) (citing *Maryland-Nat'l Capital Park & Planning Comm'n v. Anderson*, 395 Md. 172, 181 (2006)).

#### **I. Wrongful Termination**

In limited circumstances, an at-will employee can challenge his or her termination when the basis for the employer’s action would contravene “some clear mandate of public policy, and there [is] a nexus between the employee’s conduct and the employer’s decision to fire the employee.” *Wholey v. Sears Roebuck*, 370 Md. 38, 50-51 (2002) (Citations omitted).

## A. The Scope and Limitations of Wrongful Discharge Actions

There are many public policies implicated in the employer-employee relationship, but few of them can form the basis for a wrongful discharge tort. As the Court of Appeals observed in *Adler v. American Standard Corp.*:

The truth is that the theory of public policy embodies a doctrine of vague and variable quality, and, unless deducible in the given circumstances from constitutional or statutory provisions, should be accepted as the basis of a judicial determination, if at all, *only with the utmost circumspection*. The public policy of one generation may not, under changed conditions, be the public policy of another.

291 Md. 31, 46 (1981) (Emphasis added) (quoting *Patton v. United States*, 281 U.S. 276 (1930)). As a general matter, courts can rely on “legislative enactments, prior judicial decisions[, and] administrative regulations” as the chief sources of public policy. *Id.* at 45.

In some cases, an employee who is fired in retaliation for reporting the violation of a state or federal law may have an actionable wrongful discharge claim. Yet that alone is insufficient. In *Parks, supra*, the Court of Appeals adopted the reasoning of *Szaller v. American Nat’l Red Cross*, 293 F.3d 148 (4th Cir. 2002), explaining that violation of the Food and Drug Administration’s regulations alone was insufficient to establish the “public policy” prong of the wrongful termination tort. The Maryland Court observed:

[If a court] were to announce that [the FDA’s regulations] were all sources of Maryland public policy, an employee could immunize himself against adverse employment action *simply by reporting an alleged violation of any regulation*. And the narrow wrongful discharge exception, carefully carved out by the Maryland courts, would then supplant the general at will employment rule.

*Parks*, 421 Md. at 86-87 (Emphasis added) (quoting *Szaller*, 293 F.3d at 152).

The Court of Appeals has articulated two “limitations on a court’s ability to articulate a new public policy mandate” to establish wrongful termination. *Id.* at 79. First, a court must look to the “accepted *purpose* behind recognizing the tort in the first place: to provide a remedy for an otherwise unremedied violation of policy.” *Id.* (Quotation omitted). Second, the policy at issue “should be reasonably discernible from prescribed constitutional or statutory mandates.” *Id.* (Quotation omitted).

In *Makovi v. Sherwin-Williams Co.*, 316 Md. 603 (1989), the Court of Appeals observed that “the generally accepted reason for recognizing the tort” of wrongful discharge is “vindicating an otherwise civilly unremedied public policy violation.” *Id.* at 626. Where a statute already provides its own remedy, “allowing full tort damages to be claimed in the name of vindicating the statutory public policy goals upsets the balance between right and remedy struck by the Legislature in establishing the very policy relied upon.” *Id.* Hopkins has not urged this Court to apply this limitation here. JHU has not argued that 42 U.S.C. § 289b or 42 C.F.R. Part 93, provide an exclusive remedy for Yuan’s complaints. In addition, Yuan’s counsel has correctly conceded that federal law does not implicitly authorize a damage action against JHU.

Even in the case of an unremedied violation of public policy, however, a second limitation applies: the subject policy must “be reasonably discernible from prescribed constitutional or statutory mandates.” *Wholey*, 370 Md. at 53 (Citations omitted). The circuit court relied on the *Parks* case, as do we, as controlling this determination. There, the Court held that overly broad federal regulations could not form the basis for a wrongful discharge claim, because specificity is important when relying on a statute or

regulation. Although accepting as a general matter that federal law and regulation could form the basis for the tort in Maryland, the Court found that Federal Trade Commission (FTC) and Federal Drug Administration (FDA) regulations lacked “the specificity of public policy that we have required to support a wrongful discharge claim.” 421 Md. at 83.<sup>5</sup> The Court noted the “extensiveness” of 15 U.S.C. § 45(a)(2), which vested in the FTC the exclusive power to determine the unfairness of a business practice based on a consideration of its value versus its harm to consumers. This determination, vested exclusively with the FTC, was indiscernible for a Maryland court and thus “undermine[d] its utility as a basis for a wrongful discharge claim, because a specific public policy mandate is not discernible.” *Id.* at 84-85. The Court reached a similar finding with regard to the FDA regulations. *See id.* at 86 (“The regulation at issue provides the FDA’s standard for what details must be included on a prescription drug label if there is ‘reasonable evidence’ that a particular drug has a ‘clinically significant hazard.’ What is not clear from the regulation is the specific public policy mandate that Alpharma allegedly violated to support the instant wrongful discharge claim”).

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<sup>5</sup> Parks argued that her subsequent termination contravened public policy, relying on federal regulations regarding the marketing of pharmaceuticals. *Id.* at 70 (citing 21 C.F.R. § 201.57(c)(6)(i) (a prescription drug label must “be revised to include a warning about a clinically significant hazard as soon as there is reasonable evidence of a causal association with a drug; a causal relationship need not have been definitely established”)); *see* 15 U.S.C. § 45(a)(1) (Federal Trade Commission regulations imposing a duty on manufacturers to refrain from engaging in “unfair or deceptive acts or practices”). Parks also cited Maryland’s Consumer Protection Act, Maryland Code (1975, Repl. Vol. 2013) Commercial Law Article (CL), §§ 13-301 - 13-303 (prohibiting unfair or deceptive trade practices). Parks also said that there was no civil remedy for violation of these statutes under federal or state law. *Id.* The Court of Appeals held that none of the provisions could form the basis of a wrongful discharge action in Maryland.

## **B. Federal Research Misconduct**

We now examine in detail the statute and regulations that Yuan asserts are the source of a specific public policy mandate.<sup>6</sup> In 1993, Congress amended 42 U.S.C. § 289b to create the federal Office of Research Integrity (ORI); it required entities that apply for or receive public health service (PHS) funds to establish an administrative process to review reports of research misconduct in connection with sponsored biomedical and behavioral research, and directed ORI to monitor administrative processes and investigations. Section 289b(e) requires the promulgation of regulations to deter “research misconduct” and to protect whistleblowers from retaliation if they have “made an allegation that the entity, its officials or agents, [have] engaged in or failed to adequately respond to an allegation of research misconduct.” Regulations were also required to establish remedies for retaliation, which may include termination of funding, recovery of funding, “or other actions as appropriate.” § 289b(e).

The regulations adopted by the Secretary of Health and Human Services declare that “[r]esearch misconduct involving PHS support is contrary to the interests of the PHS and the Federal government and to the health and safety of the public, to the integrity of research, and to the conservation of public funds.” 42 C.F.R. § 93.100(a).<sup>7</sup>

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<sup>6</sup> See also Chris B. Pascal, *The Office of Research Integrity: Experience and Authorities*, 35 Hofstra L. Rev. 795 (2006).

<sup>7</sup> When research misconduct is at issue, “[i]nstitutions and institutional members have an affirmative duty to protect PHS funds from misuse by ensuring the integrity of all PHS supported work, and primary responsibility for responding to and reporting allegations of research misconduct, as provided in this part.” 42 C.F.R. § 93.100(b).



Most importantly for this case, these regulations define “research misconduct” as “fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.” 42 C.F.R. § 93.103.

- (a) Fabrication is making up data or results and recording or reporting them.
- (b) Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.
- (c) Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.
- (d) Research misconduct does not include honest error or differences of opinion.

*Id.* However, before a finding of research misconduct can be made, federal regulations require that

- (a) There be a significant departure from accepted practices of the relevant research community; and
- (b) The misconduct be committed intentionally, knowingly, or recklessly; and
- (c) The allegation be proven by a preponderance of the evidence.<sup>[8]</sup>

42 C.F.R. § 93.104.

One legal commentator has noted the limited scope of the definition:

The narrow definition that was finally adopted was the product of a prolonged battle over . . . broader proposals, in which scientists and their professional organizations fought hard to keep open-ended definitions out.

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<sup>8</sup> In *U.S. ex rel. Milam v. Regents of Univ. of California*, 912 F. Supp. 868, 880 (D. Md. 1995), the U.S. District Court noted that the “level of intent required for ORI to proceed with an administrative action is intentional falsification, a higher level of intent than that required under the False Claims Act.”

The final policy reflects the scientists' success: it prohibits only the most blatant forms of misconduct and plagiarism, which the scientific community has a strong, self-motivated interest in preventing. The effect is that merely careless or sloppy researchers are very rarely guilty of misconduct in a formal sense, notwithstanding the damage they may cause to the scientific record and the limited resources they may squander. Meanwhile, research institutions are left to set their own policies for, and conduct their own investigations of, the wide-ranging category of "questionable research practices" and all cases of negligent misconduct. This deference to self-enforcement, embedded in the federal definition of research misconduct, is a defining trait of the oversight scheme for federally funded research generally . . .

Patrick O'Leary, *Policing Research Misconduct*, 25 Alb. L.J. Sci. & Tech. 39, 49-50 (2015) (Footnotes omitted). The author also observed: "As for defining research misconduct as a significant departure from accepted practices of the relevant research community, this presents both difficult line drawing problems and . . . the possibility of holding similarly situated individuals to disparate standards." *Id.* at 79.

Even ORI has noted the difficulties in the regulation's definition of research misconduct. In a January 31, 2013 letter to Yuan, ORI Director David Wright said:

We have noted over the 20 plus years of evaluating allegations that complainants often confuse the reporting of false information with research misconduct. This does not take into account factors such as honest error, poor choice of techniques, and other factors that can lead to inadvertent publication of erroneous information.<sup>[9]</sup>

Although ORI appears to have the authority to conduct its own assessment of research misconduct, O'Leary, *supra*, 25 Alb. L.J. Sci. & Tech. at 59, this is a rare

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<sup>9</sup> Yuan included this letter in the record.

occurrence.<sup>10</sup> *Id.* Rather, research institutions bear the primary responsibility for preventing and detecting research misconduct. *Id.* at 51.<sup>11</sup>

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<sup>10</sup> In its January 31, 2013 letter to Yuan, ORI stated:

ORI lacks the authority to directly investigate allegations of research misconduct, so in fact we had not been investigating your allegations at any time. ORI's primary responsibility is to conduct oversight review of inquiries and investigations carried out by institutions once their process has been completed.

<sup>11</sup> The federal administrative regulations for research misconduct set forth a variety of remedies, none of which include damages. These include:

- (1) Clarification, correction, or retraction of the research record.
- (2) Letters of reprimand.
- (3) Imposition of special certification or assurance requirements to ensure compliance with applicable regulations or terms of PHS grants, contracts, or cooperative agreements.
- (4) Suspension or termination of a PHS grant, contract, or cooperative agreement.
- (5) Restriction on specific activities or expenditures under an active PHS grant, contract, or cooperative agreement.
- (6) Special review of all requests for PHS funding.
- (7) Imposition of supervision requirements on a PHS grant, contract, or cooperative agreement.
- (8) Certification of attribution or authenticity in all requests for support and reports to the PHS.
- (9) No participation in any advisory capacity to the PHS.
- (10) Adverse personnel action if the respondent is a Federal employee, in compliance with relevant Federal personnel policies and laws.
- (11) Suspension or debarment under 45 CFR Part 76, 48 CFR Subparts 9.4 and 309.4, or both.

42 C.F.R. § 93.407(a).

However, the institutions themselves must provide assurances that they will make “[a]ll reasonable and practical efforts to protect or restore the position and reputation of any complainant, witness, or committee member and to counter potential or actual

(Continued . . . )

Both courts and commenters express doubt about the ability of the judicial system to determine research misconduct. In *U.S. ex rel. Milam v. Regents of Univ. of California*, a research misconduct case brought under the False Claims Act, 31 U.S.C. § 3729, the federal district court said:

Proof of one's mistakes or inabilities is not evidence that one is a cheat... Without more, the common failings of engineers and other scientists are not culpable under the Act... The phrase “known to be false” ... does not mean “scientifically untrue”; it means “a lie.” The Act is concerned with ferreting out “wrongdoing,” not scientific errors... What is false as a matter of science is not, by that very fact, wrong as a matter of morals. The Act would not put either Ptolemy or Copernicus on trial.

912 F. Supp. 868, 886 (D. Md. 1995) (Citation omitted). The district court added that “it would be an unconscionable intrusion of law into academia” to force a jury to decide whether a researcher should have informed NIH of varying results. *Id.* at 889. Similarly, O’Leary observes:

A basic problem with resolving research misconduct allegations through the courts, whether through civil litigation or criminal prosecutions, is that determinations of misconduct in this area frequently require a sophisticated understanding of scientific methods and principles that courts and juries rarely possess and are often badly positioned to obtain, even with assistance from expert witnesses.

25 Alb. L.J. Sci. & Tech. at 71.

### **C. Analysis**

In our view, a mere recital of the very real limitations of 42 U.S.C. § 289b and 42 C.F.R. Part 93 makes it abundantly clear that, as a matter of law, these provisions do not

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(. . . continued)

retaliation against these complainants, witnesses, and committee members[.]” 42 C.F.R. § 93.304(1).

set forth the clear public policy mandate needed to support a wrongful discharge action.<sup>12</sup> The regulations police intentional, knowing, or reckless fabrication or falsification of federally funded research projects. Such language is not far afield from that found not actionable in *Park* (unfair or deceptive trade practices, false or misleading statements, deception, fraud, false pretenses) and *Adler* (corporate fraud). The generality and extensiveness of such provisions undermine their utility as a basis for wrongful discharge. *Parks*, 421 Md. at 84-85. There is no bright line between falsity and misconduct and between scientific errors and wrongdoing. As noted above, one commentator has also pointed out the difficulties in a judicial determination that the misconduct must be a significant departure from accepted practices of the relevant research community. O’Leary, *supra*, 25 Alb. L.J. Sci. & Tech. at 79. The federal provisions represent “a long tradition of government deference to the norms and integrity of the academy,” *id.* at 90, and a “deferential attitude favoring scientific self-regulation of research,” *id.* at 72. A broader remedy, such as damages, for research misconduct would invite judicial intrusion into the norms of the academy. *Milam*, *supra*, 912 F. Supp. at 889.

This may be one reason why Congress did not expressly create a damage remedy for research misconduct. Nor could one be implied under existing Supreme Court case law. *See Alexander v. Sandoval*, 532 U.S. 275, 291 (2001); *Suter v. Artist M.*, 503 U.S.

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<sup>12</sup> Thus, we need not reach the issues of whether Yuan’s reports were made to the appropriate officials, whether those statements reported falsification or fabrication, or whether any material facts are in dispute.

347, 363-64 (1992). Title 42 U.S.C. § 289b is the kind of statute where Congress carefully balanced competing values and interests, as well as duties and liabilities.<sup>13</sup> See *Universities Research Ass'n, Inc. v. Coutu*, 450 U.S. 754, 782 (1981); *Texas Indus., Inc. v. Radcliff Materials, Inc.*, 451 U.S. 630, 647 (1981) (citing *Diamond v. Chakrabarty*, 447 U.S. 303, 317 (1980)). To imply a private right of action to sue by a whistleblower “would destroy this careful balance.” *Universities Research Ass'n*, 450 U.S. at 782. Because we conclude that under state law, the federal provisions on research misconduct do not set forth a clear public policy mandate, we need not decide whether 42 U.S.C. § 289b would preempt a Maryland common law damage remedy for alleged violations of the federal statute. See *Merrell Dow Pharmaceuticals Inc. v. Thompson*, 478 U.S. 804, 816 (1986); *Schweikert v. Bank of America, N.A.*, 521 F.3d 285, 288-89 (4th Cir. 2008).

Finally, Yuan directs us to the federal False Statements Act, 18 U.S.C. § 1001(a), which provides in relevant part:

Except as otherwise provided in this section, whoever, in any matter within the jurisdiction of the executive, legislative, or judicial branch of the Government of the United States, knowingly and willfully--

- (1) falsifies, conceals, or covers up by any trick, scheme, or device a material fact;
  - (2) makes any materially false, fictitious, or fraudulent statement or representation; or
  - (3) makes or uses any false writing or document knowing the same to contain any materially false, fictitious, or fraudulent statement or entry;
- shall be fined under this title, imprisoned not more than 5 years . . . .

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<sup>13</sup> The same is true of the regulations promulgated by the Department of Health and Human Services.

He argues that this statute represents an alternative basis for the public policy mandate necessary for a wrongful discharge claim.<sup>14</sup>

Hopkins responds that the applicability of this statute was not raised in the circuit court. Yuan counters with a reference to *Weidman v. Exxon Mobil Corp.*, 776 F.3d 214 (4th Cir. 2015) *cert. denied*, 135 S. Ct. 2868 (2015), which he says holds “that it was reversible error to dismiss a complaint that did not cite a specific statute, since the complaint identified and pled illegal activities, contrary to public policy.” Our reading of *Weidman* is a little different. There, the plaintiff in a diversity action relied on a Virginia statute cited in his responsive pleadings in the district court, and the Fourth Circuit said this was sufficient notice. *Id.* at 222. Here, Yuan had provided no notice in the circuit court of this federal law, which has a different intent requirement than the research misconduct provision he did cite. Moreover, he has not generally pled a violation of any related federal statutes.

In any event, even if this law had been raised below as a source of Maryland public policy, the federal statute contains language similar to that found deficient in *Parks*.<sup>15</sup> *See* 421 Md. 82-84.

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<sup>14</sup> Most courts have concluded that there is no implied right of action for damages under this federal criminal statute. *See, e.g., Williams v. McCausland*, 791 F. Supp. 992 (S.D.N.Y. 1992).

<sup>15</sup> Yuan has not alleged a retaliation claim under the federal False Claims Act, 31 U.S.C. § 3730(h), which could be brought in state courts. *See Driscoll v. Superior Court*, 223 Cal. App. 4th 630 (2014).

For all of these reasons, the circuit court did not err in dismissing Yuan’s wrongful discharge claim.

## II. Conversion

Yuan claims that JHU converted his research materials and data, yet he fails to establish the requisite ownership of the materials in question.

Conversion is an intentional tort, consisting of two elements, a physical act combined with a certain state of mind. The physical act can be summarized as any distinct act of ownership or dominion exerted by one person over the personal property of another in denial of his right or inconsistent with it. This act of ownership for conversion can occur either by initially acquiring the property or by retaining it longer than the rightful possessor permits. . . .

[T]he gist of a conversion is not the acquisition of the property by the wrongdoer, but the wrongful deprivation of a person of property to the possession of which he is entitled.

*Darcars Motors of Silver Spring, Inc. v. Borzym*, 379 Md. 249, 261-62 (2004) (Internal quotation marks and citations omitted).

To establish the intent element,

a defendant liable of conversion must have an intent to exercise a dominion or control over the goods which is in fact inconsistent with the plaintiff’s rights. The defendant may have the requisite intent even though he or she acted in good faith and lacked any consciousness of wrongdoing, as long as there was an intent to exert control over the property.

*Id.* at 262-63 (Internal quotation marks and citations omitted).

The creator of a micro-organism, including a cell line, ordinarily possesses a property right in that creation. “[A] living cell line is a property interest capable of protection” and as such, there is “no reason why a cell line should not be considered a chattel capable of being converted.” *United States v. Arora*, 860 F. Supp. 1091, 1099 (D.



Md. 1994), *aff'd* 56 F.3d 62 (4th Cir. 1995) (per curiam), (citing *Chakrabarty*, 447 U.S. at 310 (“[T]he patentee has produced a new bacterium with markedly different characteristics from any found in nature and one having the potential for significant utility. His discovery is not nature’s handiwork, but his own; accordingly it is patentable subject matter[.]”). Furthermore, a researcher has a property right in work he or she has copyrighted. *See, e.g., U.S. ex rel. Berge v. Bd. of Trustees of the Univ. of Alabama*, 104 F.3d 1453, 1463 (4th Cir.), *cert. denied*, 522 U.S. 916 (1997). Yuan cites *Trustees of Univ. of D.C. v. Vossoughi*, 963 A.2d 1162 (D.C. 2009), in which a former researcher prevailed on conversion grounds for destruction of his research and teaching materials. There, the plaintiff’s initial employer, Catholic University, “disclaimed the equipment and intellectual property Dr. Vossoughi brought with him to UDC [the University of the District of Columbia] in 1989, and . . . Dr. Vossoughi thereafter was the rightful and sole owner of that property.” *Id.* at 1166-67. The court did not, however, discuss any property rights granted or reserved during his employment at UDC or any of UDC’s policies involving retention of property.

Yuan did not assert that he holds a patent, copyright, or other specific intellectual property interest in his research materials. Nor did he claim that Maryland law provides a separate basis for establishing a property right, and we do not find one. Instead, the core of Yuan’s argument requires a determination of his property rights in his research data and materials under JHU policy. Yuan does not challenge the validity of JHU’s “Policy on Access and Retention of Research Data and Materials” but rather argues that JHU violated this policy. The circuit court disagreed.

JHU's policy provides:

3. OWNERSHIP OF RESEARCH DATA: The University owns all Research Data generated by research projects conducted at or under the auspices of the Johns Hopkins University regardless of funding source, *unless specific terms of sponsorship, other agreements or University policy supersede these rights.*

This policy does not attempt to determine relative rights of researchers and issues surrounding collaborative efforts such as authorship.

...

5. RIGHTS TO ACCESS: . . . The University will have access to the Research Data as necessary for technology transfer, compliance and other purposes. *The University also has the option to take custody of the Research Data as determined by the appropriate University official.* Such option will not be invoked without cause and subsequent notification of the Primary Responsible Investigator. . . .

6. DESTRUCTION OR REMOVAL: . . . With respect to removal of the Research Data, the university recognizes the importance of Research Data to the future research and career of its faculty. Therefore, should removal of Research Data be approved, for example, because of the transfer of the investigator to another institution, the following requirements apply:

- I. Researchers *may* receive approval to remove original Research Data. The University may retain copies.
- II. Research Data generated during the Researcher's employment at the University will be maintained in accordance with Johns Hopkins policy[.]
- III. Research Data that are *integral to the ongoing research of another Johns Hopkins employee or student will continue to be made available for that purpose.*

(Emphasis added) (available at [http://web.jhu.edu/administration/provost/programs\\_services/research/Data\\_Management\\_Policy.pdf](http://web.jhu.edu/administration/provost/programs_services/research/Data_Management_Policy.pdf)) (last accessed April 14, 2016)

(<http://perma.cc/476F-Y6G5>).

Yuan claims that JHU officially initially said that he could take his research materials with him, before it prevented his access to those items. Noting the researcher's important interest in that property when transferring to another institution, JHU policy specifies that researchers "may" receive permission to remove that property. Yet where that information is "integral" to ongoing research, JHU may retain it.

It is unclear why JHU retained Yuan's research materials and data. But the policy does not provide an absolute right of a discharged researcher to have access or ownership of those items. In fact, JHU has ownership, "unless specific terms of sponsorship, other agreements, or University policy supersede" JHU's rights.

Yuan's complaint does not explain which of these materials was created prior to his employment at JHU beginning in 1993. It appears that the research data and materials were all created during his tenure at JHU; as such, their ownership is determined by JHU policy, which specifically provides that they may remain with JHU.<sup>16</sup>

### **III. Tortious Interference with Prospective Business Relations**

Turning to Yuan's final claim, we note that the elements of the tort are: "(1) intentional and wilful acts; (2) calculated to cause damage to the plaintiffs in their lawful business; (3) done with the unlawful purpose to cause such damage and loss, without

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<sup>16</sup> Yuan also asks us to consider a jury verdict in the Circuit Court for Baltimore City, *Kumar v. Johns Hopkins Univ.*, 2014 WL 7007677 (Md. Cir. Ct.), where, according to Yuan, a jury found that JHU had converted another employee's "personal website." This unreported *nisi prius* opinion is not binding on this court. Md. Rule 1-104; *A. & H. Transp., Inc. v. Save Way Stations, Inc.*, 214 Md. 325, 338 (1957). In any event, based on Yuan's description of this website, it appears that the case involved property not created under the auspices of JHU and thus, the JHU policy in play here would not apply.

right or justifiable cause on the part of the defendants (which constitutes malice); and (4) actual damage and loss resulting.” *Kaser v. Fin. Prot. Mktg., Inc.*, 376 Md. 621, 628-29 (2003) (Internal quotation marks and citation omitted).

“In applying these elements of the tort, we have held that ‘[t]ortious or deliberate intent to harm a plaintiff’s business relationship is not alone sufficient to support an intentional interference claim.’ There must also be proof that the defendant’s interference was accomplished through improper means.” *Volcjak v. Washington Cnty. Hosp. Ass’n*, 124 Md. App. 481, 512 (1999).

Here, the court held:

With respect to count three, tortious interference, the plaintiff has agreed that that is limited to the fourth job, the one in private industry [ComputerCraft], that Dr. Yuan alleges he did not get. However, he has not alleged any specific facts to establish who at Hopkins said what to whom or how that [a]ffected his chances to get that job; and therefore, the allegations are insufficient to sustain that cause of action.

JHU further explains that Yuan has failed to plead “malice” with particularity. Yuan did not specifically plead that JHU interfered with his hiring at ComputerCraft Corporation. Nor did his complaint specify whether these communications contained any information other than the fact that Yuan worked at JHU and had been discharged. He argues that the “only reasonable inference that can be drawn at this stage of pleadings . . . is that Dr. Boeke, Dr. Wendland, or others at JHU provided a negative reference to ComputerCraft, and did so with the requisite malice, in an attempt to interfere with Dr. Yuan’s prospective employment opportunities.”

This is not the “only reasonable inference.” Employers are often called to provide references for former employees. Though malice is not a necessary element of the tort, JHU points out that under Md. Code (1974, Repl. Vol. 2013) Courts & Judicial Proceedings Article (CJP) § 5-423, former employers are not liable for disclosing information about a former employee to a prospective employer. In so doing, CJP § 5-423 protects employers from liability and creates a presumption that they acted in good faith:

(a) An employer acting in good faith may not be held liable for disclosing any information about the job performance or the reason for termination of employment of an employee or former employee of the employer:

(1) To a prospective employer of the employee or former employee at the request of the prospective employer, the employee, or former employee; or

...

(b) An employer who discloses information under subsection (a) of this section shall be presumed to be acting in good faith unless it is shown by clear and convincing evidence that the employer:

(1) Acted with actual malice toward the employee or former employee; or

(2) Intentionally or recklessly disclosed false information about the employee or former employee.

Yuan has not alleged that JHU communicated false information to ComputerCraft or acted with actual malice when called to provide a reference; all that he pled was that he believed Wendland was contacted and provided a “negative reference”; from this Yuan concluded that JHU provided “false references about him” and “took these actions without right or justifiable cause.” Yet Yuan did not disclose who at JHU made the

possibly defamatory, malicious, or false statements to ComputerCraft, or what the contents of such statements was. Given the statutory presumption that JHU's reference was done in good faith, we find no error in the court's determination that JHU is not liable for this tort.

For all of these reasons, we affirm the judgment of the circuit court.

**JUDGMENT OF THE CIRCUIT  
COURT FOR BALTIMORE CITY  
AFFIRMED; COSTS TO BE PAID  
BY APPELLANT.**