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FOURTH AMENDMENT RESTRICTIONS ON SCIENTIFIC MISCONDUCT PROCEEDINGS AT PUBLIC UNIVERSITIES

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John J. Marchalonis^{††}

“THIS IS THE REAL WORLD, not a constitutional law classroom,” the General Counsel of our university bitterly complained when one of us suggested that the United States Constitution, and specifically the Fourth Amendment,¹ might place limitations on searches and seizures of public university professors’ offices and materials therein.² The context was a meeting

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¹ The Fourth Amendment states: “The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.” U.S. CONST. amend. IV.

² It is beyond the scope of this article to consider the private university context. There, certain interaction with governmental officials in the course of a scientific misconduct proceeding might constitute state action and thereby bring the Fourth Amendment into play. *See, e.g.,* Schowengerdt v. General Dynamics Corp., 823 F.2d 1328, 1338-39 (9th Cir. 1987) (stating that existence of governmental action is a question of fact and that various tests may be used to determine the existence of state action with private parties). Moreover, there are several other sources of law that might protect professors’ offices and materials therein even in the wholly private context. Those, too, are beyond the scope of this article. On the latter topic, see, for example, S. Elizabeth Wilborn, *Revisiting the Public/Private Distinction: Employee Monitoring in the Workplace*, 32 GA. L. REV. 825 (1998). It is also likely that private universities will feel pressured to offer their professors protections similar to those afforded to public university professors.

of the University of Arizona Research Policy Committee, which was charged with drafting a scientific misconduct document that would comply with federal requirements.³

Counsel's impatience is not an aberration; there is good reason to believe that most personnel within the scientific misconduct bureaucracy—lawyers included—have little sensitivity to possible Fourth Amendment—or other constitutional⁴—restraints on scientific misconduct processes.

The first part of the article will explore bureaucratic attitudes and practices concerning the applicability of Fourth Amendment protections to scientific misconduct searches and seizures at public research universities, both generally and in the specific high-profile, ongoing case of Marguerite Kay, an eminent physician-scientist who has been accused of scientific misconduct and barred (for a period of over two years to date) from the University of Arizona pending a hearing on whether

³ The requirements for Public Health Service funded research are currently set forth in 42 C.F.R. § 50, Subpart A (1999). The Federal Policy on Research Misconduct that applies to all federally funded research and is designed to harmonize federal agency substantive and procedural rules became effective December 6, 2000. *See* 65 Fed. Reg. 76,260 (2000) [hereinafter Federal Policy on Research Misconduct]. The federal agencies that fund scientific research have up to one year from December 6, 2000 to implement the policy, and an "interagency research misconduct policy implementation group has been established to help achieve uniformity across the Federal agencies in implementation of the research misconduct policy." *Id.* at 76,260. Footnote one to the policy states: "No rights, privileges, benefits or obligations are created or abridged by issuance of this policy alone. The creation or abridgement of rights, privileges, benefits or obligations, if any, shall occur only upon implementation of this policy by the Federal agencies." *Id.* at 76,262 n.1; *see also* text, *infra*, at notes 11-18.

⁴ We hope to address other constitutional issues raised in scientific misconduct proceedings in subsequent pieces. One crucial issue addressed previously, but not analyzed completely, is the burden of proof used in scientific misconduct proceedings. The existing rules and the federal policy only provide for a preponderance of the evidence standard. *See, e.g.*, Elizabeth Howard, Note, *Science Misconduct and Due Process: A Case of Process Due*, 45 HASTINGS L.J. 309, 337-49 (1994) (identifying due process protections that are necessary in scientific misconduct investigations). Since a finding of scientific misconduct is likely equivalent to an academic death sentence, we favor a beyond a reasonable doubt standard. One point that needs to be emphasized is that professors should not receive less protection than other professionals. Indeed, given the importance of academic freedom, they should probably receive greater protection. Yet other professionals, such as doctors and dentists, are often protected by the clear and convincing standard that we contend is constitutionally mandated in administrative disciplinary proceedings and scientific misconduct proceedings. *See, e.g.*, *Painter v. Abels*, 998 P.2d 931, 940-41 (Wyo. 2000) (ruling the clear and convincing evidence standard is the constitutionally mandated minimum protection required in physician disciplinary hearings).

she is guilty of misconduct. It will also discuss the broad existing and soon to be effective definitions of "scientific misconduct" and how these definitions invite abusive search and seizure practices. The second part of the article will then analyze the law concerning searches and seizures in the public workplace generally. Finally, the third part of the article will further analyze and apply the law explored in part two to the context of scientific misconduct proceedings at public research universities explored in part one (including Dr. Kay's case as an example).⁵

I. BUREAUCRATIC ATTITUDES AND PRACTICES CONCERNING THE APPLICABILITY OF FOURTH AMENDMENT PROTECTIONS TO PUBLIC WORKPLACES

The statement above that scientific misconduct bureaucrats are insensitive to Fourth Amendment concerns is evidenced by a March 24, 2000, educational workshop conducted by the federal Office of Research Integrity⁶ ("ORI") and the National Council of University Research Administrators, entitled, *Making the Right Moves in Research Misconduct Investigations*.⁷ Therein it was recommended that "[a]nything that may be relevant" should be seized immediately upon notification to a professor that she has been accused of scientific misconduct, that this should be done privately in collaboration with the accused and in that professor's laboratory or office after business hours, and should include materials or information, if any, contained at

⁵ See Eliot Marshall, *Fired Researcher is Rehired and Refired*, 287 SCI. 1183 (2000) (discussing aspects of litigation stemming from Dr. Kay's alleged scientific misconduct); Eliot Marshall, *The Misconduct Case That Won't Go Away*, 286 SCI. 1076 (1999) (discussing the case against Dr. Kay); Tinker Ready, *University of Arizona Misconduct Investigation Ruled Improper*, 6 NATURE MED. 120 (2000) (discussing the controversy over Dr. Kay's scientific misconduct proceeding); John MacNeil & David Malakoff, *Science Scope: In or Out?*, 289 SCI. 847 (2000) (reviewing the processes used to terminate Dr. Kay).

⁶ The authority of ORI is set forth in 42 U.S.C.A. §289b (West Supp. 2000). Currently, the ORI is primarily responsible for overseeing the scientific misconduct bureaucracy. The ORI's role will change under the new policy referred in *supra* note 3. For an explanation of the complete bureaucratic apparatus prior to adoption of the new policy, see Jesse A. Goldner, *The Unending Saga of Legal Control Over Scientific Misconduct: A Clash Of Cultures Needing Resolution*, 24 AM. J.L. & MED. 293 (1998).

⁷ Video tapes on file with the Research Integrity Officer ("RIO") of the University of Arizona, and written materials available from the authors.

the professor's home. Items mentioned among those that "may be relevant" include "grant applications (all drafts)," "correspondence" and "email" (including trash and network) with co-authors and witnesses inside and outside the university, "pharmacy records," "laboratory records," all iterations of manuscripts, "pertinent research materials" (including anti-sera, cells, and biologicals), progress reports, experimental data, instrument use logs, supply purchase records, records of laboratory support, computer files (including erased materials that can be retrieved), files of collaborators or co-authors, computer hard drives, and "other related records." The possibilities for egregious abuse are obvious.

One of the more thoughtful presenters, Dr. Robert Rich of the Emory University Medical School, did note that the goal should not be to "clean out a laboratory," but to obtain materials that might be relevant to the allegations made *as determined upon advice of one or more persons with sufficient scientific expertise to decide what data would be needed to substantiate the allegations*. He observed that additional material can be obtained, if necessary, as the proceedings advance. However, Dr. Alan Price, the head of ORI's investigations unit, quickly interjected that it is best to obtain everything possible "up front." He pointed out that professors often do not realize that, as to federal grants, the federal government and university own all research data and *anything related thereto*. This statement is also clearly subject to abuse because, for example, "anything related thereto" could sweep in proprietary information adduced in industry-funded research similar to, but distinct from, the accused's federal government-funded research that is the subject of an investigation. Dr. Price also pointed out that in one case he needed to seize and copy thirteen file cabinets full of documents at a cost of \$13,000. The message, again, was: make sure you do not miss anything in the initial search and seizure.⁸ Dr. Price also emphasized that ORI is ready with technical assistance—such as computer expertise in searching hard drives even for erased files—to institutional officials who wish to undertake thorough searches and seizures.

⁸ This sentence is not intended to imply that all gatherings of materials entail either a "search" or "seizure" within the meaning of the Fourth Amendment. These are terms of art that apply only in given circumstances, as will be discussed below.

Alarmed by the offhand advice during the workshop that accused researchers' homes be searched, one of us asked whether a search warrant might be needed to undertake such intrusive investigations. C.K. Gunsalus, who was responsible for scientific misconduct proceedings at the University of Illinois, Urbana-Champaign from the mid-80's through the mid-90's (and who now holds a different position at that university), answered: "Absolutely not, it is university property; if you go to the home, that might be more dicey." She also articulated criteria to guide university personnel when they determine whether to accept an allegation of scientific misconduct and to proceed with an inquiry and any concomitant search and seizure: (1) If the allegation were true, would there be scientific misconduct?; (2) Have there been multiple complaints about the accused?; (3) Are "volatile personalities" involved?; and (4) Is there a large disparity in power between the complainant and the accused? She further specifically cautioned that one should *not* consider the complainant's motives at this point. Motives and conflicts of interest should, according to her, only be considered during the conduct of an inquiry or investigation.⁹

The foregoing discussion, along with analysis of various definitions of scientific misconduct and brief consideration of how scientific misconduct proceedings are supposed to unfold, demonstrates that there is a virtual invitation to public university administrators to mount massive intrusions on professors' privacy under the current system. As we argue below, a university's global claim of ownership of anything and everything arguably related to professors' professional mental lives does not authorize such invasions.

One of the primary issues addressed in early debates over the definition of scientific misconduct was whether such misconduct should be interpreted to be criminal or tort-like in nature. (Of course, it can be defined to be both criminal and tort-like.) Many authors presented and debated notions of "deliberate intent" versus "mere sloppiness" or "negligence" of varying

⁹ The authors must note their possible conflicts of interest. Professor Spece has an ongoing dispute (not related to scientific misconduct) with the University of Arizona. Professor Marchalonis is Dr. Kay's Department Head, and has consistently agreed with departmental peer review committees that have given her outstanding evaluations. He also has refused, along with the Dean of the College, to sign a dismissal letter directed to Dr. Kay.

degrees as thresholds of culpability.¹⁰ There was and continues to be much debate regarding the definition of scientific misconduct. This is no doubt due, in part, to the varying customs and practices among various types of researchers. For example, basic scientists who experiment primarily with materials and chemicals, on the one hand, and clinicians who participate mainly in large studies involving human subjects, on the other hand, might not understand the realities of feasible or reasonably expected quality control measures in their respective enterprises.

Nonetheless, a definition was finally promulgated and published in what has become the main source of substantive law for misconduct cases, Section 50, Subpart A of Volume 42 of the Code of Federal Regulations. These regulations attempt to both define scientific misconduct and to establish baseline procedures for reporting, investigating, and adjudicating allegations. The definition of scientific misconduct appears to incorporate both traditional notions of dishonest data presentation with unspecified breaches of ethical standards:

[F]abrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data.¹¹

Institutions receiving Public Health Service ("PHS") funding are required to investigate all allegations of misconduct according to this definition. On the other hand, another major federal science agency, the National Science Foundation ("NSF"), has a slightly different definition:

Misconduct means (1) Fabrication, falsification . . . ; or (2) Retaliation of any kind against a person who reported or provided information about suspected or alleged misconduct and who has not acted in bad faith.¹²

¹⁰ Compare Susan M. Kuzma, *Criminal Liability for Misconduct in Scientific Research*, 25 U. MICH. J.L. REFORM 357 (1992) with Paul J. Friedman, *Mistakes and Fraud in Medical Records*, 20 L. MED. & HEALTHCARE 17 (1992).

¹¹ 42 C.F.R. § 50.102 (1999).

¹² Misconduct in Science and Engineering, 45 C.F.R. § 689.1(a) (2000).

Note that the NSF definition does not make reference to “commonly accepted practices,” but, rather, to those that are simply accepted. While this difference may appear to be a trivial matter of labeling, it could be important when trying to arrive at a standard of behavior against which one must judge acts constituting “other serious deviations.”

In fact, the “other serious deviations” clause has turned out to be one of the most problematic aspects of the definition.¹³ As noted above, the new policy, which will become effective upon implementation by the various federal agencies, has as a major goal the clarification and harmonization of federal agency definitions. The new policy defines research misconduct as “fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.”¹⁴ Thus, it would seem to be clear what one would be looking for during a search pursuant to a misconduct investigation: evidence of fabrication, falsification, or plagiarism.

However, there is at least one problem with such a straightforward use of the new definition to inform the scope of related searches. Although the new definition deletes the “other deviations” clause, there is still some text that indicates other factors may be determined to establish culpability for misconduct.¹⁵ Specifically, after the new definition explicitly lists only fabrication, falsification, or plagiarism as “misconduct,” the new policy goes on to say:

A finding of research misconduct requires that [1] There be significant departure from accepted practices of the relevant research community; ... [2] The misconduct be committed intentionally, or knowingly, or recklessly; and [3] The allegation be proven by a preponderance of evidence.¹⁶

Arguably, there is a community standard that works to broaden what might, on its face, have been considered a definition of misconduct that was tightly defined as only plagiarism

¹³ See Karen A. Goldman & Montgomery K. Fisher, *The Constitutionality of the “Other Serious Deviation from Accepted Practices” Clause*, 37 JURIMETRICS 149 (1997) (evaluating case law and concluding that the “other serious deviation” language meets constitutional due process requirements).

¹⁴ Federal Policy on Research Misconduct, *supra* note 3, at 76, 262.

¹⁵ See *id.* (explaining factors required to state a claim of misconduct).

¹⁶ *Id.*

or some type of falsification.¹⁷ The argument would be that the reference to a “significant departure from accepted” in the new policy’s definition is an independent description of “scientific misconduct” and is just as broad, or even broader, than the references to “other practices that seriously deviate” and “other serious deviation from accepted practices” in the existing PHS and NSF definitions. Moreover, although neither of the already existing federal regulatory definitions of scientific misconduct quoted above explicitly incorporates a mental state requirement, they can be argued to require intentional wrongdoing.¹⁸ The new policy explicitly includes reckless as well as intentional misbehavior. The comments issued with the policy explain, moreover, that a phrase in the policy stating that “[r]esearch misconduct does not include honest error or differences of opinion”¹⁹ “does not create a separate element of proof[;] [i]nstitutions and agencies are not required to disprove possible ‘honest error or difference of opinion.’”²⁰

This explicit renunciation of an intent requirement could herald a substantial expansion of target behaviors. A comparison of the existing and new definitions thus reveals that there will continue to be uncertainty over what may be considered to be scientific misconduct. The likely response of bureaucratic officials to this uncertainty is to err in favor of a broad definition and to undertake commensurately capacious searches and seizures. In other words, enforcement personnel are likely to reason that the broader the feasible definition of targeted misconduct becomes, the wider is the set of relevant, seizeable material.

Turning from the definition of scientific misconduct to the actual processing of allegations concerning them, both the existing Public Health Service regulations and the new policy contemplate at least a three-step process. The PHS regulations call for: (1) a preliminary assessment “to determine whether there is sufficient evidence to warrant an inquiry, whether PHS

¹⁷ Of course, the quoted language could be read to require that there be a finding of “fabrication, falsification, or plagiarism” only if that particular conduct deviates from “accepted practices of the relevant research community.”

¹⁸ See Rebecca Dresser, *Defining Scientific Misconduct: The Relevance of Mental State*, 269 JAMA 895 (1993) (exploring the concept of intent in definitions of scientific misconduct).

¹⁹ Federal Policy on Research Misconduct, *supra* note 3, at 76,262.

²⁰ *Id.* at 76,260.

support or PHS applications for funding are involved, and whether the allegation falls under the PHS definition of scientific misconduct[;]" (2) an inquiry "to make a preliminary evaluation of the available evidence and testimony of the respondent, whistleblower, and key witnesses to determine whether there is sufficient evidence of possible scientific misconduct to warrant an investigation[;]" and (3) an investigation "to explore in detail the allegations, to examine the evidence in depth, and to determine specifically whether misconduct has been committed, by whom, and to what extent."²¹ The new policy states:

A response to an allegation of research misconduct will usually consist of several phases, including: (1) an *inquiry*—the assessment of whether the allegation has substance and if an investigation is warranted; (2) an *investigation*—the formal development of a factual record, and the examination of that record leading to dismissal of the case or to a recommendation for a finding of research misconduct or other appropriate remedies; [and] (3) *adjudication*—during which recommendations are reviewed and appropriate corrective actions determined.²²

Although, as pointed out above, Dr. Rich has recommended that appropriate scientific expertise inform the scope of any search and seizure, it will be shown below that this alone is not adequate to prevent abuse. Moreover, it is not even likely to occur given the presently recommended procedures. (Nor is there any wording in the new policy or the comments thereto that gives reason for optimism on this point.) Specifically, the ORI Model Policy recommends that "sequestration of research records" occur simultaneously with the notification to an accused that an inquiry will be conducted, while it also states that the inquiry committee should be appointed within ten days of this time.²³ At this point, there is little reason to be confident that sufficient scientific expertise will be utilized to determine precisely what data might be needed to prove the allegations. In-

²¹ Office of Research Integrity, *Model Policy for Responding to Allegations of Scientific Misconduct*, §§ IV.E, V.A. & VII.A. (visited Jan. 29, 2001) <http://ori.dhhs.gov/html/misconduct/model.asp>.

²² Federal Policy on Research Misconduct, *supra* note 3, at 76,263.

²³ See Office of Research Integrity, *supra* note 21, §§ V.B., V.C.

deed, the only person required to be involved in the preliminary assessment is the RIO. This person might not have any scientific expertise whatsoever. Even if the RIO is a solid scientist, moreover, the array of scientific questions that can arise is beyond the comprehension of any single individual. What is likely to happen, therefore, is a broad sweep that will make sure nothing could possibly be left out. As also indicated above, moreover, according to "the experts," there is no reason to be concerned about possible Fourth Amendment limitations, except perhaps if the accused's home is searched.

In the current system, then, all incentives and advice point toward swift, decisive, and complete action. Consider, again, the criteria attorney Gunsalus proffers to judge whether to proceed. If a "lowly", but volatile laboratory assistant makes what seems like blanket and grandiose charges against an eminent chaired professor, who is also short-tempered, and these charges would constitute scientific misconduct, three of the four Gunsalus criteria would be met, and presumably an inquiry should commence. If there had been any similar charges in the past, the conclusion to proceed would be ineluctable. And with such broad and serious charges, obviously the empowered administrators will need to "clean out the laboratory" and everything else.

Indeed, a situation similar to the hypothetical in the preceding paragraph has occurred at the University of Arizona. Specifically, on January 23, 1997, Cathleen Cover, a research/laboratory assistant without even a bachelor's degree, resigned from employment in Dr. Marguerite Kay's laboratory. Dr. Kay was the first woman in Arizona to be awarded the state's highest academic honor, a Regent's Professorship. One of Ms. Cover's concerns was a reduction in her work hours and resulting loss of compensation. Although the Kay case primarily implicates broader issues of due process and fair procedure that we hope to address in future publications, we use it as an example here because it conveys a flavor of the prosecutorial zeal that can affect both scientific misconduct proceedings, generally, and gathering of materials and data within those proceedings specifically.

On February 18, 1997, Ms. Cover submitted a "to whom it may concern" memorandum of allegations against Dr. Kay to Charles Geoffrion, Associate Vice President for Research and RIO at the University of Arizona. She then signed this memo-

randum in his presence on March 3, 1997. Based upon this memorandum and an interview on the same date, RIO Geoffrion, and Ms. Alice Langen, also from the office of the Vice President for Research, on March 6, 1997, presented allegations against Dr. Kay to the University of Arizona Committee on Ethics and Commitment ("UCEC"). Among the allegations was that Dr. Kay had been responsible for unplugging a freezer (that was vulnerable to destruction by quick changes in temperature) in her laboratory so as to profit by subsequently filing an insurance claim. This was a clearly false allegation because the freezer contained irreplaceable research samples. These items could not be valued and collected upon, and so Dr. Kay could have destroyed them only at her own peril. Moreover, in no way would Dr. Kay profit personally from any insurance money because the same would go to the funding agency, in this case the Veteran's Administration. The Veteran's Administration would then use the funds to purchase a new freezer and any replaceable items damaged in the incident. Furthermore, Ms. Cover had previously accused other persons of harassing herself and other of Dr. Kay's employees out of their alleged hatred for Dr. Kay. Finally, Ms. Cover had filed a claim against the university, which later matured into a lawsuit, claiming that Risk Management had required her to clean out the disputed freezer after the unplugging incident even though she was not given adequate training or protective equipment to safely complete the task. Included in her allegations were that the freezer had contained Polio J virus, which is, in fact, a fictitious microbe.

Other allegations were lack of authorship credit to laboratory workers,²⁴ lack of standards and training regarding radioactive and biohazardous materials, misuse of grant money to benefit Dr. Kay's own real and personal property, horses and dogs as well as her employees and friends, and lack of commitment. The one allegation presented by RIO Geoffrion that related to scientific misconduct was that: "Respondent [Dr. Kay] fabricated data in a study involving 19 Alzheimer patients by using a graph originally plotted (duration of years versus time postmortem) by Complainant [Ms. Cover] for three patients. These data may have been the basis for a published article." This allegation is meaningless scientifically. It makes no sense

²⁴ It was never contended that these alleged omissions of authorship credit amounted to plagiarism.

to consider any analyses of "duration of years versus time postmortem." Furthermore, the statement was made that these data "*may have* been the basis for a published article." No such data were ever published or relied on in any published article.

We submit that, given the obvious scientific absurdity of the scientific misconduct allegation, it should have been dismissed summarily. The most any reasonable person would have done would have been to ask Ms. Cover to show the publication, including the suggested figure, and to ask Dr. Kay for the same information. Since no such information existed, the scientific misconduct part of any proceedings would have been over with no need for interpretation.

What actually happened, however, is that on March 13, 1997, Dr. Thomas P. Davis, Professor of Pharmacology and Neuroscience and Chairman of the UCEC, wrote to Dr. Kay informing her that the UCEC intended to review four allegations against her, Ms. Cover's allegations about misuse of funds not being within the committee's jurisdiction. The first was the scientific misconduct charge mentioned above repeated verbatim. The second allegation was the supposed "fabrication of peripheral blood data for 19 patients where only 12 patients were ever drawn for blood samples." Two other allegations were vaguely stated and dealt with "safety standards and staff training," and with "commitment and effort," respectively. As will become evident below, it is important to note that the day before Dr. Davis' letter was authored, Ms. Cover complained to the University of Arizona Police Department that her car had been stolen and that Dr. Kay might have been involved "due to another matter being investigated by her department and the University of Arizona Police Department." Ms. Cover also told the police that "she had a box of work related paperwork in the back seat and additional papers in the trunk."²⁵ The same day the police recovered the car and wrote a report that it was found running and unoccupied after apparently being taken by "Hispanic male juveniles with shaved heads."²⁶ There is a very strong implication from these reports that the work-related documents referred to by Ms. Cover were laboratory notebooks pertaining to her work for Dr. Kay. There is no documentation or information,

²⁵ Basic Report, The University of Arizona Police Department, Mar. 12, 1997, #U97002000.

²⁶ Police Report, Tucson Police Department, Mar. 12, 1997, #9703120487.

however, indicating that the disputed material was ever returned to Dr. Kay or the University of Arizona.

The UCEC reported to the Vice President for Research, Dr. Michael Cusanovich, on April 15, 1997, with respect to the two scientific misconduct allegations as follows: (1) "The inquiry team was unable to find/obtain evidence required to support this allegation," and (2) "The inquiry team was presented with no data to support this allegation." The UCEC commented further with respect to allegation (1) that "[t]he lack of evidence is due to the fact that all 'raw' data books required to support this allegation are missing." Based on these findings, on April 23, 1997, Dr. Cusanovich notified Dr. Kay as follows: "I regret to inform you that the University Committee on Ethics and Commitment (UCEC) has found cause to believe that scientific misconduct may have occurred in your laboratory I am pleased to report that allegations of research fraud or data fabrication against you have not been substantiated."

This communication is very curious because the UCEC had not concluded that any further inquiry was necessary regarding scientific misconduct. Indeed, on November 6, 2000, Dr. Samuel James, a member of the UCEC panel that conducted the inquiry into the allegations against Dr. Kay, reported to the University of Arizona Faculty Senate that: (1) he had complained to the Faculty Chair, Dr. Jerald Hogle, that scientific misconduct charges were inappropriately pressed against Dr. Kay after she had been exonerated by the UCEC panel; and (2) there was and is a conflict of interest in the process because the Vice President for Research supervises it.²⁷

Giving Dr. Cusanovich the benefit of the doubt, he might have mistakenly believed that the issues of safety, training, and commitment referred to by UCEC fell within the "other practices that seriously deviate" part of the definition of scientific misconduct discussed above.²⁸ He also could conceivably have

²⁷ Copies of any of the communications referred to here or above, including unpublished opinions of the Arizona courts, can be obtained from the authors, and any events discussed above or below based on other than written communications can be verified by discussion with one or both of the authors. Dr. Marchalonis has knowledge regarding the interacting among Dr. Kay, Dr. Cusanovich, and Ms. Cover because he was Dr. Kay's Department Head at all relevant times. As to the particular statement in the text made by Dr. James, both authors witnessed him making it in their capacities as faculty senators.

²⁸ See *supra* note 11 and accompanying text.

believed both that the missing notebooks were attributable to Dr. Kay and that this justified scientific misconduct proceedings against her. In any event, he wrote to Dr. Mary Wetzel, Chairman of the Committee on Academic Freedom and Tenure, on the same day, informing her of the lack of evidence for research fraud or data fabrication, but requesting a full investigation by that committee. It is important to point out that, long before the allegations by Ms. Cover against Dr. Kay, Dr. Kay and Dr. Cusanovich had a history of mutual antagonism. Dr. Kay had accused Dr. Cusanovich of mishandling grant monies, ignoring complaints about harassment of her laboratory staff, and unjustifiably removing space from her team, while Dr. Cusanovich had characterized her charges against him as unethical and irresponsible.

In any event, one specious scientific misconduct allegation (fabrication of "data in a study involving 19 Alzheimer patients by using a graph originally plotted (duration of years versus time postmortem")) had been morphed into two (the one just stated *and* "fabrication of peripheral blood data for 19 patients where only 12 patients were ever drawn for blood samples") that could not be substantiated. The accuser was either unwilling or unable to provide documentation that supported her allegations against Dr. Kay, claiming that her notebooks were missing. This is where the above-referenced police reports become relevant. Recall that they report Ms. Cover as stating that she had work-related material in her car, which might have given Dr. Kay an incentive to steal that vehicle. Were these the missing notebooks? It seems highly likely that they were. Dr. Kay had hired a private attorney to attempt to have the University of Arizona legal office recover missing laboratory notebooks from Ms. Cover in February 1997 after Ms. Cover left Dr. Kay's laboratory without turning in her notebooks.²⁹ University attorney Nick Goodman did write two letters to Ms. Cover asking that she return the missing materials. Ms. Cover did not return any materials.³⁰

In any case, the two scientific misconduct allegations were clearly without merit as demonstrated by inspection of published work. The first allegation, as explained above, made no

²⁹ See Letter from Dr. Kay's attorney, Jonathan Rothschild, to University counsel, Nick Goodman (Feb. 11, 1997).

³⁰ See Letters from Nick Goodman to Cathleen C. Cover (Feb. 11, 1997 & Mar. 10, 1997).

scientific sense whatsoever. The second allegation related to patients "drawn for blood samples." There may have been confusion because a figure in a review paper in *Cellular and Molecular Biology*³¹ refers to 19 Alzheimer's Disease (AD) patients, but the assay involved binding of a monoclonal antibody to brain tissue, not to peripheral blood cells. No such study was ever performed with peripheral blood involving 19 samples.

Nevertheless, on September 11, 1997, Dr. Thomas C. Cetas, the new Chairman of CAFT, asked for, and received from the Biomedical Communication Unit within the College of Medicine, "all the slides and charts, autorads, graphs, and anything else from 1992 through 1997, which has been submitted by Dr. Marguerite M.B. Kay of the University of Arizona College of Medicine, Department of Microbiology and Immunology, and her former graduate student, Timothy L. Wyant." Biomedical Communications is an internal entity that prepares slides, graphs, charts, and other materials for University of Arizona faculty members. These can be for purposes of teaching, research, or outside consulting work, and faculty are charged for the work according to its nature and scope. All such materials were confiscated, without an inventory. The purpose of the seizure was explained to be "an investigation by the Committee on Academic Freedom and Tenure."

Having explored scientific misconduct proceedings generally, and the specific incident regarding Dr. Kay, we will turn to the law on public workplace searches and seizures. After an analysis of that body of law, we will further analyze and apply it to the facts set forth in this first part of the article. We will also offer additional facts about the Kay case. The Kay case is a particularly complex one insofar as Fourth Amendment law is concerned. We will not attempt to work out all the details here, but will highlight the most pertinent issues and venture some thoughts on how they might be resolved. These issues concern third party standing and the proper role of the warrant and probable cause requirements in public workplace "searches" and "seizures."³²

³¹ M.M. Kay et al., *Posttranslational Modifications of Brain and Erythrocyte Band 3 During Aging and Disease*, 42 *CELLULAR & MOLECULAR BIOLOGY* 919 (1996).

³² Another issue concerns the application of the exclusionary rule in administrative proceedings, generally, and scientific misconduct cases specifically. This issue would be analyzed similarly to the issues concerning the application of the warrant

II. THE LAW APPLICABLE TO PUBLIC WORKPLACE SEARCHES AND SEIZURES

Part of the lack of bureaucratic concern for Fourth Amendment problems in scientific misconduct searches and seizures could stem from the fairly weak protections that might be suggested by a quick review of the precedents. Nevertheless, those precedents indicate greater protections than might be thought at first blush, and they make it indisputable that, at the very least, professors in public research universities will usually be held to have a reasonable expectation of privacy, and consequent Fourth Amendment protection, as to their private offices, desks, file cabinets, and personal materials therein.³³ They will have an even greater interest in briefcases, luggage, carrying cases, or the like, that they might bring to the workplace.

The seminal precedent is *O'Connor v. Ortega*,³⁴ a plurality opinion authored by Justice O'Connor and joined by Chief Justice Rehnquist and Justices White and Powell. Justice Scalia wrote an opinion concurring in the judgment of the Court. Justice Blackmun authored a dissent, which was joined by Justices

and probable cause requirements in the administrative and scientific misconduct contexts. See 1 WAYNE R. LAFAYE, *SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT* § 1.7, at 184-216 (3d ed. 1996). This article does not address the exclusionary rule or other possible remedies—such as damages, attorneys' fees, and injunctive relief—although the remedial question is a very important one in any Fourth Amendment case. The assumption here is that universities will be deterred from unconstitutional searches and seizures by the possibility of any relief being entered against them involving a finding of unconstitutional action. This might be an overly optimistic perspective, and we encourage others to address the important remedial questions, which themselves could fill an entire article. We similarly call on others to analyze any or all of the issues we address here because there is a dearth of consideration about the subject in the published literature. On remedial questions in Fourth Amendment cases, see generally *id.* §§ 1.1-1.13.

³³ We are not unconcerned with intrusion on other public university employees. Here we address only searches and seizures directed at faculty members. The expectations of graduate students, adjunct lecturers, and the like depend upon a case-by-case analysis. See *People v. Powell*, 599 N.W.2d 499, 503 (Mich. Ct. App. 1999) (explaining that graduate student did not have reasonable expectation of privacy in a "cell" where he was assigned to work with an employee of the university; this employee and several others had keys, but the defendant did not). Nevertheless, the discussion in this article should be useful to such personnel in attempting to discern their own rights and obligations. As to searches and seizures concerning students, see generally 4 WAYNE R. LAFAYE, *SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT* § 10.11 (3d ed. 1996); 2 JOHN WESLEY HALL, JR., *SEARCH AND SEIZURE* §§ 38.6-38.24 (3d ed. 2000).

³⁴ 480 U.S. 709 (1987).

Brennan, Marshall, and Stevens. Each of these opinions and the entire litigation preceding and following them must be closely analyzed to understand the current state of the law and possible future rulings. There are significant protections clearly embedded in *Ortega*, and courts could and should grant additional protections in the context of scientific misconduct searches and seizures in public research universities. This is especially true given that the plurality opinion was on very weak ground when it limited the Fourth Amendment protections available to public employees generally. The application of *Ortega* to the scientific misconduct context will be developed in Part III of this article.

Dr. Magno Ortega, a psychiatrist, was the chief of Professional Education at Napa State Hospital for seventeen years. According to the plurality opinion, in July 1981 officials of the hospital, including its Executive Director Dr. Dennis O'Connor, became concerned about alleged improprieties of Dr. Ortega: (1) possibly coercing residents to contribute to the purchase of a computer for use in the residency program; (2) allegedly sexually harassing two female hospital employees; and (3) taking inappropriate disciplinary action against a resident. On July 30, 1981, Dr. O'Connor placed Dr. Ortega on administrative leave, and he subsequently appointed an investigative team to study the allegations. The team decided to enter Dr. Ortega's office. Initially, the petitioners alleged that the search was pursuant to a hospital policy of conducting a routine inventory of state property in the office of a fired employee. It is not the case that one forfeits all reasonable expectations of privacy simply because she has been terminated. Once terminated, however, one can be expected to, in a reasonable amount of time, retrieve from the workplace any private materials and vacate a former office or like space.

This was all moot in *Ortega*, however, because at the time of the search, Dr. Ortega had not been terminated. The hospital's argument that it was acting pursuant to a policy applicable to terminated employees was therefore clearly a pretext. Dr. Ortega contended that the search was intended to obtain incriminatory evidence for dismissal proceedings against him. The plurality described the search and seizure as follows:

The resulting search of Dr. Ortega's office was quite thorough. The investigators entered the office a number of times and seized several items from Dr. Ortega's

desk and file cabinets, including a Valentine's Day card, a photograph, and a book of poetry all sent to Dr. Ortega by a former resident physician. These items were later used in a proceeding before a hearing officer of the California State Personnel Board to impeach the credibility of the former resident, who testified on Dr. Ortega's behalf. The investigators also seized billing documentation of one of Dr. Ortega's private patients under the California Medicaid program. The investigators did not otherwise separate Dr. Ortega's property from state property because, as one investigator testified, "[t]rying to sort State from non-State, it was too much to do, so I gave it up and boxed it up."... Thus, no formal inventory of the property in the office was ever made. Instead, all the papers in Dr. Ortega's office were merely placed in boxes, and put in storage for Dr. Ortega to retrieve.³⁵

Dr. Ortega sued in federal court under 42 U.S.C. § 1983 and various state law theories. The U.S. District Court granted summary judgment for the petitioners on the ground that the search was justified to secure state property, but the United States Court of Appeals for the Ninth Circuit found that the search was unconstitutional and remanded the case for a determination of damages.³⁶ The Supreme Court then granted certiorari.

The Court was *unanimous* in rejecting the petitioner's position, supported by an amicus brief filed by the Solicitor General, that public employees generally have no reasonable expectation of privacy in the workplace. The plurality also concluded that the reasonableness of an expectation of privacy as well as the appropriate standard for a search is determined, in part, by considering whether the workplace is involved. It defined the workplace as follows:

The workplace includes those areas and items that are related to work and are generally within the employer's control. At a hospital, for example, the hallways, cafeteria, offices, desks, and file cabinets, among other areas, are all part of the workplace. These areas

³⁵ *Id.* at 713-14.

³⁶ 764 F.2d 703 (9th Cir. 1985).

remain part of the workplace context even if the employee has placed personal items in them, such as a photograph placed in a desk or a letter posted on an employee bulletin board.

Not everything that passes through the confines of the business address can be considered part of the workplace context, however. An employee may bring closed luggage to the office prior to leaving on a trip, or a handbag or briefcase each workday. While whatever expectation of privacy the employee has in the existence and the outward appearance of the luggage is affected by its presence in the workplace, the employee's expectation of privacy in the *contents* of the luggage is not affected in the same way. The appropriate standard for a workplace search does not necessarily apply to a piece of closed personal luggage, a handbag, or a briefcase that happens to be within the employer's business address.³⁷

The plurality went on to observe, and all the other Justices seemed to agree, that when a reasonable expectation of workplace privacy exists, the *police* must obtain a warrant before breaching that privacy.³⁸ The plurality, further reasoned that supervisors and other personnel, on the other hand, might or might not, depending on the circumstances, have a right to enter an employee's office, desk, file cabinets, or other spaces without the employee having any reasonable expectation of privacy. This, the plurality said, must be determined case-by-case, depending on factors such as customs and practices within the particular workplace, regulations explicitly allowing and warning about random searches or entries, and the general openness or insularity of the workplace.³⁹

Justice Scalia and the four dissenters reasoned that Dr. Ortega had a reasonable expectation of privacy in his *office*. The plurality reasoned, however, that the Court of Appeals should have remanded for a determination on this issue. Nevertheless, the Court was unanimous in its conclusion that Dr. Ortega had a

³⁷ *O'Connor*, 480 U.S. at 715-16.

³⁸ *See id.* at 718-20.

³⁹ *See id.* at 718.

reasonable expectation of privacy in his *desk and file cabinets*, reasoning:

The undisputed evidence discloses that Dr. Ortega did not share his desk or file cabinets with any other employees. Dr. Ortega had occupied the office for 17 years and he kept materials in his office, which included personal correspondence, medical files, correspondence from private patients unconnected to the Hospital, personal financial records, teaching aids and notes, and personal gifts and mementos...The files on physicians in residency training were kept outside Dr. Ortega's office... Indeed, the only items found by the investigators were apparently personal items because, with the exception of the items seized for use in the administrative hearings, all the papers and effects found in the office were simply placed in boxes and made available to Dr. Ortega... Finally, we note that there was no evidence that the Hospital had established any reasonable regulation or policy discouraging employees such as Dr. Ortega from storing personal papers and effects in their desks or file cabinets,... although the absence of such a policy does not create an expectation of privacy where it would not otherwise exist.⁴⁰

Before moving to a discussion of the plurality's approach to defining the reasonableness of a search once it has been determined that there was a protected expectation of privacy, we wish to reiterate and emphasize that the Court unanimously rejected the Solicitor General's argument for the government, as *amicus curiae*, that there is never a reasonable expectation of privacy in the public workplace. The government's view was no doubt predicated on the notion that public employers generally "own" buildings, offices, desks, and file cabinets. As Justice Blackmun pointed out in his dissent, however:

This Court...has made it clear that privacy interests protected by the Fourth Amendment do not turn on ownership of particular premises. *See, e.g., Rakas v. Illinois*, 439 U.S. 128, 143 (1978) ("T]he protection of the Fourth Amendment depends not upon a property

⁴⁰ *Id.* at 718-19.

right in the invaded place but upon whether the person who claims the protection of the Amendment has a legitimate expectation of privacy in the invaded place”); *Katz v. United States*, 389 U.S. 347, 353 (1967) (Fourth Amendment protects people and not simply “areas”).⁴¹

Turning to the plurality’s discussion of the proper test to determine whether a search is reasonable once it has been determined that there is a protected expectation of privacy, it stated that “determination of the standard of reasonableness applicable to a particular class of searches requires ‘balanc[ing] the nature and quality of the intrusion on the individual’s Fourth Amendment interests against the importance of the governmental interests alleged to justify the intrusion.’”⁴² In the context of public employer searches, the plurality identified the respective interests to be weighed as the “employees’ legitimate expectations of privacy” and “the government’s need for supervision, control, and the efficient operation of the workplace.”⁴³

The plurality went on to state that although the reasonableness rule usually requires a valid search warrant, this was not so as to most workplace searches. However, the plurality’s reasoning on this point is important because, as will be developed in section III of this article, it rests upon distinctions and a balancing of interests that, when applied to the scientific misconduct setting, support a conclusion that search warrants are required. The plurality’s reasoning on the warrant requirement is as follows:

While police, and even administrative enforcement personnel, conduct searches for the primary purpose of obtaining evidence for use in criminal or other enforcement proceedings, employers most frequently need to enter the offices and desks of their employees for legitimate work-related reasons wholly unrelated to illegal conduct. Employers and supervisors are focused primarily on the need to complete the government agency’s work in a prompt and efficient manner. An employer may have need for correspondence, or a file or report

⁴¹ *Id.* at 740 n.7 (Blackmun, J., dissenting).

⁴² *Id.* at 719 (quoting *United States v. Place*, 462 U.S. 696 (1983)) (citations omitted).

⁴³ *Id.* at 719-20.

available only in an employee's office while the employee is away from the office. Or, as is alleged to have been the case here, employers may need to safeguard or identify state property or records in an office in connection with a pending investigation into suspected employee misfeasance.

In our view, requiring an employer to obtain a warrant whenever the employer wished to enter an employee's office, desk, or file cabinets for a work-related purpose would seriously disrupt the routine conduct of business and would be unduly burdensome. Imposing unwieldy warrant procedures in such cases upon supervisors, who would otherwise have no reason to be familiar with such procedures, is simply unreasonable. In contrast to other circumstances in which we have required warrants, supervisors in offices such as at the Hospital are hardly in the business of investigating the violation of criminal laws. Rather, work-related searches are merely incident to the primary business of the agency. Under these circumstances, the imposition of a warrant requirement would conflict with "the common-sense realization that government offices could not function if every employment decision became a constitutional matter."⁴⁴

After discussing the warrant requirement, the *Ortega* plurality then moved to a discussion whether "probable cause" should be required even in contexts where a warrant is not. A warrant must be based on probable cause, but it does not follow that an exception to the warrant requirement connotes an exemption from the probable cause mandate.⁴⁵ The plurality went on to reason that probable cause should not be required for either searches for evidence of suspected work-related employee misconduct or noninvestigatory intrusions such as those to secure government property. As to the former, the plurality reasoned that the "delay in correcting the employee misconduct

⁴⁴ *Id.* at 721-22 (quoting *Connick v. Myers*, 461 U.S. 138, 143 (1983)).

⁴⁵ Some administrative systems provide for "administrative" rather than judicial warrants, and it is theoretically possible to retain the warrant requirement without the probable cause requirement. Nevertheless, the cases discussed in this article assume that probable cause will be required whenever a warrant is required.

caused by the need for probable cause rather than reasonable suspicion will be translated into tangible and often irreparable damage to the agency's work, and ultimately to the public interest."⁴⁶

Given that it will be established below that both the warrant and the probable cause requirements should be retained in the scientific misconduct context, it is important to pause here to say a few words about the purpose and meaning of the warrant and "probable cause" requirements. As to the warrant requirement, it involves obtaining a judicial order allowing a search of specified places for particular items or persons to be seized. The requirement is intended to protect against unjustified invasions of privacy that would occur if governmental personnel with a stake in successful searches and seizures were allowed to decide for themselves when and what aggressive actions are justified.⁴⁷ In other words, the warrant requirement is to prevent the inevitable unjustified invasions of privacy that would result from governmental authorities' conflicts of interest in making decisions about when they can visit searches and seizures upon persons they wish to control for one reason or another.

Turning to "probable cause," its function is to protect the privacy and liberty of citizens from arbitrary governmental intrusions. More specifically, "[i]ts function is to guarantee a substantial probability that the invasions involved in [a] search will be justified by discovery of offending items."⁴⁸ This entails two requirements: the items sought are subject to seizure and the items will be found in the place to be searched.⁴⁹ In *Carroll v. United States*⁵⁰ the Supreme Court defined the concept as follows:

This is to say that the facts and circumstances within their knowledge and of which they had reasonably trustworthy information were sufficient in themselves to warrant a man of reasonable caution in the belief that

⁴⁶ *O'Connor*, 480 U.S. at 724.

⁴⁷ See 2 WAYNE R. LAFAVE, SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT § 4.1(a), at 395-401 (3d ed. 1996) (citing several U.S. Supreme Court cases and also mentioning avoidance of "hurried actions" by governmental authorities as a purpose of the warrant requirement; the "hurried actions" rationale seems to be a makeweight at best).

⁴⁸ *Id.* § 3.1(b), at 7.

⁴⁹ *See id.*

⁵⁰ 267 U.S. 132 (1925).

intoxicating liquor was being transported in the automobile which they stopped and searched.⁵¹

There is a plethora of cases and authorities that attempt to fill out this definition.⁵² One point that is indisputable is that the test is an objective one, applied from the perspective of a reasonable, prudent enforcement person. Another important concept is somewhat disputed: what quantum of probability is necessary to establish probable cause. One answer to this question is that it is not appropriate to quantify such concepts. Another answer is that "probable" itself connotes a more likely than not standard. On the other hand, there are cases in some contexts that indicate that there is not a more likely than not requirement. Nevertheless, one of the two leading authorities on search and seizure, Wayne R. LaFave, asserts that although there is no definitive answer to the quantum of probability question, there is good reason to adopt a more likely than not standard for at least the question whether a wrong has been committed that might justify an arrest or search.⁵³

Finally, LaFave explains that just because there is probable cause to believe that a particular person has committed a wrong as to which he likely has evidence, that does not give the authorities probable cause to search every place over which the accused has control. For example, he discusses *State v. Joseph*,⁵⁴ where the police attempted to justify a search of the defendant's home because he had been caught attempting to sell counterfeit money out of a box in his car a few hours earlier. There were no factual data indicating that there was bogus cash in the home, and so the court held that probable cause did not exist. This case reflects the proper *spirit* of application of the probable cause test.

The plurality next elucidated the reasonableness requirement that it substituted for probable cause in Dr. Ortega's circumstances, stating that a search must be justified at its inception *and* in its execution. As to the former: "Ordinarily, a search of an employee's office by a supervisor will be 'justified at its

⁵¹ *Carroll*, 267 U.S. at 162; see also *California v. Carney*, 471 U.S. 386, 392 (1985) (holding that a warrantless search of a motor home did not violate the Fourth Amendment).

⁵² For a discussion of these authorities, see LAFAVE, *supra* note 47, § 3.2.

⁵³ See *id.* § 3.2(e), at 70 n.196.

⁵⁴ 337 A.2d 523 (R.I. 1975).

inception' when there are reasonable grounds for suspecting that the search will turn up evidence that the employee is guilty of work-related misconduct, or that the search is necessary for a noninvestigatory work-related purpose such as to retrieve a needed file."⁵⁵ As to the execution of the search, the plurality stated that the measures adopted must reasonably relate to the objectives of the search and not be excessive in light of the nature of the misconduct.⁵⁶ Finally, the plurality explicitly refused to consider the appropriate standard by which to judge the *seizure* of Dr. Ortega's personal materials found within his office, desk, and filing cabinets because "[n]either the District Court nor the Court of Appeals addressed this issue, and the *amicus curiae* brief filed on behalf of respondent did not discuss the legality of the seizure separate from that of the search."⁵⁷

As to the particular search and seizure before it, the Court remanded to the District Court for an evidentiary hearing regarding the purpose of the search and seizure and the reasonableness of both their initiation and execution in light of that purpose.⁵⁸

Justice Scalia's concurring opinion added very little. Once again, he reasoned that employees have reasonable expectations of privacy in their offices as a general matter. On the other hand, he reasoned that all public employer searches will be reasonable if "of the sort that are regarded as reasonable and normal in the private-employer context."⁵⁹

Justice Blackmun's dissent was most insightful and thus merits extensive quotation. He captured the problems with the plurality's opinion in the following statements:

The facts of this case are simple and straightforward. Dr. Ortega had an expectation of privacy in his office, desk, and file cabinets, which were the target of a search by petitioners that can be characterized only as investigatory in nature....

The problems in the plurality's opinion all arise from its failure or unwillingness to realize that the facts here are

⁵⁵ O'Connor v. Ortega, 480 U.S. 709, 726 (1987).

⁵⁶ See *id.*

⁵⁷ *Id.* at 729, n.*.

⁵⁸ See *id.* at 729.

⁵⁹ *Id.* at 732 (Scalia, J., concurring).

clear. The plurality, however, discovers what it feels is a factual dispute: the plurality is not certain whether the search was routine or investigatory. Accordingly, it concludes that a remand is the appropriate course of action. Despite the remand, the plurality assumes it must announce a standard concerning the reasonableness of a public employer's search of the workplace. Because the plurality treats the facts as in dispute, it formulates this standard at a distance from the situation presented by this case.

This does not seem to me to be the way to undertake Fourth Amendment analysis, especially in an area with which the Court is relatively unfamiliar. Because this analysis, when conducted properly, is always fact specific to an extent, it is inappropriate that the plurality's formulation of a standard does not arise from a sustained consideration of a particular factual situation. Moreover, given that *any* standard ultimately rests on judgements about factual situations, it is apparent that the plurality has assumed the existence of hypothetical facts from which its standard follows. These "assumed" facts are weighted in favor of the public employer, and, as a result, the standard that emerges makes reasonable almost any workplace search by a public employer....

At the onset of its analysis, the plurality observes that an appropriate standard of reasonableness to be applied to a public employer's search of the employee's workplace is arrived at from "balancing" the privacy interests of the employee against the public employer's interests justifying the intrusion.... Under traditional Fourth Amendment jurisprudence, however, courts abandon the warrant and probable-cause requirements, which constitute the standard of reasonableness for a government search that the Framers established, "[o]nly in those exceptional circumstances in which special needs, beyond the normal need for law enforcement, make the warrant and probable-cause requirement impracticable...."

A careful balancing with respect to the warrant requirement is absent from the plurality's opinion, an absence

that is inevitable in light of the gulf between the plurality's analysis and any concrete factual setting. It is certainly correct that a public employer cannot be expected to obtain a warrant for every routine entry into an employee's workplace. This situation, however, should not justify dispensing with a warrant in *all* searches by the employer. The warrant requirement is perfectly suited for many work-related searches, including the instant one.⁶⁰

The dissent also pointed out that the plurality opinion ignored that, especially with so many women entering the work force, it "is, unfortunately, all too true that the workplace has become another home for most working Americans." As a consequence, "the tidy distinctions (to which the plurality alludes...) between the workplace and professional affairs, on the one hand, and personal possessions and private activities, on the other, do not exist in reality."⁶¹

Even if it were concluded that neither the warrant nor the probable cause requirement applies to public research university scientific misconduct searches and seizures, there would still be significant restraints even based on a direct and sole application of the limitations actually applied to the conduct at issue in *Ortega*. Indeed, Dr. Ortega ultimately won a jury verdict for \$436,000 based on the illegal search and seizure inflicted upon him. The course of Dr. Ortega's litigation following the Supreme Court's opinion gives an insight into how far out of line bureaucracies can go, and how important is the need for Fourth Amendment protections.

Upon remand, Dr. Ortega represented himself at a jury trial in 1992. The judge granted a directed verdict for all the defendants at the close of the evidence. The Court of Appeals reversed because the trial judge had improperly excluded most of Dr. Ortega's witnesses for failing to serve a witness list on opposing counsel.⁶² Upon the second remand, the defendants retreated from their general assertion before the Supreme Court that they invaded Dr. Ortega's office because of their need to secure state property. They contended, instead, that they were

⁶⁰ *Id.* at 732-34, 741, 745 (Blackmun, J., dissenting) (citations omitted).

⁶¹ *Id.* at 739 (Blackmun, J., dissenting); *see also id.* at 739-40 n.6.

⁶² *See Ortega v. O'Connor*, 146 F.3d 1149, 1153 (9th Cir. 1998) (describing prior procedural history of case).

investigating improper management of the Department of Professional Education and alleged sexual harassment. Dr. Ortega continued to argue that defendants were just on a fishing expedition to find evidence to justify dismissal without any specific allegation of wrongdoing or expectation of finding any particular evidence, and that the scope and length of the search and seizure were unreasonable.⁶³

This time a new trial judge ruled, during a pre-trial hearing, that the evidence of alleged "sexual harassment" could not have reasonably supported the search or any part of it, and that the seizure of certain materials (the "Sutton materials" referred to below) violated Dr. Ortega's rights as a matter of law.⁶⁴ Stripped of the sexual harassment pretext at trial, the hospital went back to the excuse that the search was simply part of an established procedure to inventory property within offices of departing, terminated, or separated employees. The Court of Appeals elaborated upon the nature and scope of the search and seizure:

The search was extremely thorough and highly intrusive. The investigative team entered Dr. Ortega's office on several occasions and repeatedly searched his office, his desk, and his private file cabinets. In his desk drawers, the investigators examined and, according to Dr. Laskay's report, read "numerous personal letters from friends, one of his ex-wives, a daughter, as well as many sexually explicit letters from several women over the years." The investigators removed the checks and correspondence regarding Dr. Ortega's acquisition of the computer. They then reviewed and boxed up the remaining state property along with Dr. Ortega's personal possessions—lecture notes and numerous teaching aids, framed artwork, photographs from students, letters from family members, copies of published and unpublished articles, rejection letters from medical journals, a manuscript for a new book, desk accessories, and confidential medical files of patients not connected with the Hospital—and placed everything in a special locked storage area to which Dr. Ortega did not have access. At no time did anyone ever inventory any of the state's items from

⁶³ *See id.*

⁶⁴ *See id.* at 1154 (describing the trial court's holding).

the office; nor did anyone ever separate the state's property from Dr. Ortega's personal property. Everything was simply boxed up and kept together in the state's possession for a lengthy period.

During the course of the search, Friday conducted an exploration of his own one evening, without the other investigators. He found and removed from Dr. Ortega's desk drawer a suggestive photo, a Valentine, and a book of love poetry (with a short inscription) given to Dr. Ortega about ten years earlier by a former resident, Dr. Joyce Sutton. Friday recognized Dr. Sutton as a medical school classmate of Dr. O'Connor's. Friday took these items, which became known as the "Sutton materials," and promptly showed them to Dr. O'Connor. No one had then, or has ever since, alleged that Dr. Ortega sexually harassed, or behaved improperly toward Dr. Sutton. The only "official" use to which these seized materials were ever put was to attempt to impeach Dr. Sutton when she testified on Dr. Ortega's behalf at a State Personnel Board hearing.⁶⁵

The Court of Appeals rejected the defendants' contentions that they were protected by qualified immunity and that the trial court had erred by deciding the search could not have been justified by any concern over sexual harassment. As to the qualified immunity, it found that no reasonable official at the pertinent time could have found the search and seizure to be proper under facts reasonably found by the jury:

(1) that the defendants, under the pretense of conducting an "inventory" of state property in order to separate personal from official materials, conducted instead a purely indiscriminate fishing expedition through his most personal belongings in hopes of discovering some evidence that might be useful at an adversary administrative hearing;

(2) that the repeated intrusions and examinations of Dr. Ortega's private possessions, including his purely per-

⁶⁵ *Id.* at 1152.

sonal belongings, clearly exceeded the scope of a reasonable work-related search;

(3) that the defendants retained *all* of the property that had been in his office, both personal and official, in one undivided mass; and

(4) that when their first explanation was exposed as false, the defendants then offered other equally untruthful rationales for their conduct.⁶⁶

As to the issue of sexual harassment, the court reasoned:

First, two complaints of improper conduct by Dr. Ortega over a seventeen-year period did not warrant a reasonable suspicion that the doctor was sexually harassing residents. The stronger of the two complaints was ten years old, rendering that evidence “stale” by any standard. It was also wholly uncorroborated. The more current complaint—the one that alleged specifically only that Dr. Ortega had appeared at an unidentified resident's home on a Saturday morning—was far too vague and unsubstantiated to serve as a basis for reasonable suspicion warranting any search of an employee's private office, let alone so intrusive a search and seizure of his most personal possessions. “Reasonableness” must be viewed in the context of the nature of the intrusion involved.

We need not rest our decision solely on this ground, however, for even if the evidence were sufficient to warrant reasonable suspicion necessary for such a search, the defendants had *no* grounds to suspect that any evidence of sexual harassment would be found in Dr. Ortega's office. Indeed, Dr. O'Connor testified expressly that he had no reason to suspect that any such “specific” evidence might be found there, and that he did not tell the investigators to look for anything in particular. Moreover, neither of the alleged incidents involved the sending of any letters by (or even to) Dr.

⁶⁶ *Id.* at 1159.

Ortega or in any way involved any type of physical evidence that might be found amongst his private possessions. The search was, at best, a general and unbounded pursuit of anything that might tend to indicate any sort of malfeasance—a search that is almost by definition, unreasonable. *See Stanford* [v. Texas (1986)] 379 U.S. [476] at 486, (holding that the “history” and the “meaning” of the Fourth Amendment mandate that a warrant allowing an “indiscriminate sweep” by the government through a person’s “books, records,... pictures, recordings, and other written instruments... is constitutionally intolerable”) (internal quotation omitted).⁶⁷

The court further observed:

We note that we seriously doubt that the seizure of the Sutton materials would be reasonable in any event. The materials consisted of a picture, a valentine, and a book of poetry given to Dr. Ortega by a former resident. The receipt of such gifts by him would not appear to constitute evidence that he engaged in any act of sexual harassment.⁶⁸

The court finally summarized the standard to be used in judging the reasonableness of investigatory searches:

[A]ny search of private areas for evidence of such activities must at a minimum be based on a specific reason to suspect that particular evidence exists and that it will be found in the place to be searched; moreover, such a search must be carefully limited in scope, not only because of an historic respect for fundamental privacy but because of the need to insure that the search will not be “excessively intrusive.” *O’Connor*, 480 U.S. at 726 (plurality opinion).... The rule we apply in this case is not, contrary to the defendants’ assertion, a probable cause rule; it simply reflects a proper definition of what constitutes an unreasonable intrusion under all the circumstances.⁶⁹

⁶⁷ *Id.* at 1162-63 (citation omitted).

⁶⁸ *Id.* at 1162 n.18.

⁶⁹ *Id.* at 1163-64.

It should be helpful, at this point, to summarize the guidance offered by the authorities involving searches and seizures in the public workplace. After that brief summary, the article will, in the next section, apply the general body of public workplace law to scientific misconduct proceedings involving public research university professors.

The following propositions are contained in the foregoing analysis:

- (1) The Fourth Amendment protects people and their reasonable expectations of privacy, not simply places or property interests therein;
- (2) The warrant requirement is intended to prevent unjustified invasions of privacy that would otherwise flow from governmental officials' conflicts of interest in determining for themselves when they should be allowed to direct searches and seizures against persons they seek to control in one way or another;
- (3) The probable cause requirement is intended to protect liberty and privacy by demanding a substantial probability that the items sought are subject to seizure and that they are located in the place to be searched;
- (4) On most issues, *Ortega* is merely a plurality opinion, and it therefore does not have binding authority. The plurality opinion is poorly reasoned, leading, as the dissent pointed out, to too ready exceptions to the warrant and probable cause requirements. As such, the plurality opinion should be read to establish a baseline of minimal protection that should be recognized in the public workplace setting generally. At the same time, the plurality opinion should not be construed to prevent substantial protections beyond this minimal baseline;
- (5) Five members of the Supreme Court agreed in *Ortega* that public employees generally have a reasonable expectation of privacy in their offices, desks, file cabinets, like spaces, and personal materials therein;
- (6) All members of the Supreme Court agreed that Dr. Ortega had a reasonable expectation of privacy in his desk, file cabinets, and personal materials therein, and the plurality opinion indicated that this reasonable expectation of privacy flowed in part from the fact that "the Hospital had [not] established any reasonable

regulation or policy discouraging employees such as Dr. Ortega from storing personal papers and effects in their desks or file cabinets;⁷⁰

- (7) Even the *Ortega* plurality implied, by language indicating that there is a greater expectation of privacy in briefcases, luggage, or carrying cases brought to the workplace than there is in, say, desks or filing cabinets within the workplace, that public employees will generally have sufficiently enhanced expectations of privacy to require warrants and probable cause when the government seeks to search or seize items such as, or within, briefcases, luggage, or carrying cases brought to the workplace, and the four dissenters would probably agree with this given their clear intent to extend greater protections in the public workplace;
- (8) All members of the Supreme Court seemed to agree in *Ortega* that the warrant and probable cause requirements will apply to police searches and seizures directed at public employees;
- (9) The *Ortega* plurality reasoned that neither the warrant nor the probable cause requirement should generally apply to the public workplace setting because employees' expectations of privacy are usually outweighed by the interference with efficiency and the impracticability that would be caused by those requirements, but this reasoning has been forcefully and persuasively attacked by the dissenting opinion as well as by commentators who have analyzed public workplace searches and seizures;
- (10) The *Ortega* plurality also entertained the possibility that, in some public workplace scenarios, the balancing process it adopts might dictate that the probable cause requirement be retained even if the warrant requirement is found unnecessary;

⁷⁰ O'Connor v. Ortega, 480 U.S. 709, 719 (1987). The dissenting opinion also observed that some courts had held that reasonable expectations of privacy are negated by the existence of regulations purporting to give the public employer the right to conduct searches. See *id.* at 738 n.5 (Blackmun, J., dissenting). It is unlikely that public universities would attempt to adopt and sufficiently publicize, or that their professors would tolerate, regulations explicitly denying Fourth Amendment protections. To the contrary, their policies and procedures usually refer to maximum protection of academic freedom.

- (11) Even if the case-by-case balancing called for by the *Ortega* minority is accepted as appropriate and it is determined under that test that the warrant and probable cause requirements do not apply, governmental personnel must still show that there is reasonable cause to believe that scientific misconduct has occurred and that there are items subject to seizure in the particular areas of the workplace they intend to search;
- (12) Upon remand, the Ninth Circuit found that there was no reasonable cause to believe either that Dr. Ortega was guilty of any wrongdoing or that any evidence of any wrongdoing would be found in his private office, and it also reasoned that the search “was, at best, a general and unbounded pursuit of anything that might tend to indicate any sort of malfeasance—a search that is almost by definition, unreasonable;”⁷¹
- (13) Upon remand, the Ninth Circuit also noted that the *seizure* of Dr. Ortega’s personal materials would have been improper even if there had been reasonable cause to believe that he committed sexual harassment and that there was evidence of the same in his office, desk, or file cabinets; and
- (14) Upon remand, the Ninth Circuit pointed out, quoting from the Supreme Court’s plurality opinion, that a search must be “carefully limited in scope” and not “excessively intrusive.”

The foregoing propositions will now be applied and analyzed further in the scientific misconduct setting.

⁷¹ *Ortega*, 146 F.3d at 1163. As indicated above, the court also stated that “we seriously doubt that the seizure of the Sutton materials would be reasonable in any event.” *Id.* at 1162 n.18.

III. APPLICATION OF PUBLIC WORKPLACE AUTHORITIES TO SCIENTIFIC MISCONDUCT PROCEEDINGS INVOLVING PUBLIC RESEARCH UNIVERSITY PROFESSORS (INCLUDING THE CASE OF DR. KAY)

The first issue we will address in this section of the article is when the warrant and probable cause requirements will apply. As pointed out above, even the plurality opinion in *Ortega* indicates that the warrant and probable cause requirements will apply to closed luggage, briefcases, carrying cases, and other personal property a public employee takes to the workplace. Even more clearly, moreover, a warrant and probable cause will be required whenever the employer proposes to search an employee's home.⁷² It might be argued that the employer can merely request that the employee consent to a search of his home, with the understanding that he will be considered an uncooperative employee subject to discipline if he does not cooperate. Any such argument must be rejected. A consent must be voluntary, and no negative consequences can be attached to the refusal of consent.⁷³ There are many factors that might influence the finding of voluntariness,⁷⁴ but one factor most likely to produce a finding of involuntariness is an express or implied claim that the employer can proceed to make the search in any event.⁷⁵

An issue that is likely to arise, given the importance of computers in current research endeavors and the ORI's obvious

⁷² See *Serpas v. Schmidt*, 827 F.2d 23 (7th Cir. 1987) (finding that a dormitory is a "home" and that a search of the dormitory requires probable cause and a warrant or consent); *Los Angeles Police Protective League v. Gates*, 907 F.2d 879 (9th Cir. 1990) (holding administrative warrant not sufficient to search police officer's garage and automobiles therein, and officer could not properly be charged with insubordination for refusing to honor the administrative warrant). "Nowhere is the protective force of the fourth amendment more powerful than it is when the sanctity of the home is involved." *Id.* at 884.

⁷³ The seminal precedent regarding voluntariness is *Schneekloth v. Bustamonte*, 412 U.S. 218 (1973) (holding that consent must be voluntary, not coerced by explicit or implicit means, threat, or force). As to the impropriety of threatening or implementing negative consequences, see *Jackson v. Gates*, 975 F.2d 648 (9th Cir. 1992) (finding it improper for the city to fire police officer for exercising his Fourth Amendment right to refuse to submit to an unconstitutional search).

⁷⁴ For discussion of this issue, see 3 WAYNE LAFAVE, *SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT* §§ 8.1 & 8.2 (3d ed. 1996).

⁷⁵ See generally *Bumper v. North Carolina*, 391 U.S. 543, 548 (1968) (holding that a prosecutor's burden of proving consent to a search cannot be met simply by showing acquiescence to a claim of authority).

concern with computer-based information, is a desire to search personal lap top computers that professors might carry to and from the office. Such computers, like desks and file cabinets, likely contain personal as well as work-related material. However, the same is true as to briefcases, and even the *Ortega* plurality implied that the latter are subject to the warrant and probable cause protections. It presumably gave them more protection because they are usually owned by the employee, less apt to contain as many work-related materials, and more likely to contain personal materials. The same would likely be true as to laptop computers. Even if they are on loan from the public employer, once they are taken home, they are more likely to contain greater amounts of personal items and less amounts of work-related items. They should be given commensurately greater protections than property permanently at the work place. Indeed, they might merit more protection than a personal desk taken to the workplace for indefinite use in the ordinary course of business. This is because the desk is likely to contain more work-related materials by its very presence at the work place.⁷⁶

It would seem permissible for the employer to request prompt production of a copy of files from such a laptop computer if the files are reasonably related to a specific claim of scientific misconduct in federally or locally funded research. However, a command that a professor sit down at any given moment and immediately peruse the personal computer's files, especially with another employee looking over his shoulder, would constitute a search, and it should therefore have to be preceded by a warrant and probable cause.⁷⁷

⁷⁶ Cf. *Gossmeier v. McDonald*, 128 F.3d 481, 490 (7th Cir. 1997) (stating "[b]ut we fail to find an expectation of privacy in the cabinets simply because Gossmeier bought them herself. The cabinets were not personal containers which just happened to be in the workplace; they were containers purchased by Gossmeier primarily for the storage of work-related materials").

⁷⁷ For example, in *Rossi v. Town of Pelham*, 35 F. Supp. 2d. 58 (D.N.H. 1997), discussed in the text *infra* accompanying notes 86-93, the court held that posting a police officer inside a public official's house to ensure that she would not remove the town's financial records constituted an unreasonable search because it was not preceded by a warrant. Although there would not necessarily be a police officer involved in the situation posited in the text, the scientific misconduct enforcement personnel are similar to police in that they are seeking to uncover specific wrongdoing by invoking their authority and reason for being. Moreover, the fact that the laptop is in the indefinite or permanent possession of the researcher calls for greater protection that was allowed in *Rossi* because, in *Rossi*, there was no invasion into such "personal" property. On the other hand, the *Rossi* court held that although

Moving to areas said by the *Ortega* plurality to be subject to searches and seizures without warrants and probable cause findings, it might be thought that the opinion should be construed to extend to searches and seizures of professors' offices, desks, file cabinets, similar spaces, and materials therein.⁷⁸ There are several considerations, however, that indicate that the warrant and probable cause requirements should extend to scientific misconduct searches and seizures of professors' private materials and matters. To begin, even the *Ortega* plurality indicates that the warrant and probable cause requirements are more feasible when there is an administrative enforcement action by administrative enforcement personnel as opposed to when "ordinary" public employers or supervisors are conducting a search in connection with suspected workplace misconduct or with a need to locate certain materials necessary to the ongoing operation of the particular public entity.⁷⁹ It also appears that the four dissenters would have even applied the warrant and probable cause requirements in Dr. Ortega's circumstances. Scientific misconduct proceedings are administrative enforcement proceedings required by federal law and subject to appeal through the federal bureaucracy.⁸⁰ They are carried out by institutional officials (e.g., RIOs), and these officials must adhere to detailed regulations. The institution itself is subject to further enforcement action against it if it fails to carry out its enforcement obligations.⁸¹ The Office of Scientific Integrity (OSI) retains the authority to conduct investigations itself, and it will do so if the

there were seizures of both Rossi's person and of "property" in which she had an interest, these seizures were reasonable even though not preceded by a warrant. Once again, however, the indefinite personal possession of the laptop might distinguish the researcher's situation and lead to a finding of an unreasonable seizure as well as an unreasonable search. *Cf. Illinois v. McArthur*, 531 U.S. 326, 121 S. Ct. 946 (2001) (holding that police officer's refusal to allow defendant to enter his residence without a police escort until a search warrant could be obtained was a "reasonable seizure").

⁷⁸ Hereafter we will refer to professors' offices, desks, file cabinets, similar spaces, and materials therein as "private materials and matters."

⁷⁹ See *O'Connor v. Ortega*, 480 U.S. 709, 721-22 (1987).

⁸⁰ See 42 C.F.R. § 50, Subpart A (1999) (outlining the responsibilities of those who receive assistance under the Public Health Service Act to report scientific misconduct; see also Opportunity for a Hearing on Office of Research Integrity Scientific Misconduct Findings, 57 Fed. Reg. 53,125 (1992); Hearing Procedures for Scientific Misconduct, 59 Fed. Reg. 29,809 (1994).

⁸¹ See 42 C.F.R. § 50, Subpart A, and specifically § 50.103(a) (1999) (discussing the establishment and use of an administrative process at institutions receiving PHS funds to monitor scientific misconduct).

institution is unwilling or incapable of doing the job.⁸² Moreover, OSI can decide to impose sanctions on the convicted researcher in addition to those the institution may decide to apply.⁸³ The foregoing facts establish that scientific misconduct proceedings are administrative enforcement actions in which the warrant and probable cause requirements are quite apt.

This becomes evident upon consideration of the reasoning behind the *Ortega* plurality's distinction between administrative enforcement personnel, on the one hand, and "ordinary" public employers or supervisors, on the other hand. The plurality reasoned that: (1) employers, as opposed to enforcement personnel, are not versed in legal requirements such as warrants and probable cause; and (2) employers become involved in disciplinary proceedings collateral to their primary functions, while enforcement personnel, which the plurality mentioned in the same breath along with police, are in the business of enforcing rules and regulations. These underlying rationales indicate that personnel involved in scientific misconduct proceedings are administrative enforcement personnel who need to be, and feasibly can be, bridled by the warrant and probable cause requirements.

The institution will have at least one person, usually designated as the RIO, who will be responsible for assuring that the detailed federal regulations are enforced according to the substantive and procedural guidelines set forth therein. These persons will not be able to function without becoming familiar with legal requirements and the need to seek university counsel's advice when in doubt as to those mandates. Moreover, enforcement work is not collateral to these administrators' functioning, but, rather, is the very reason for their being. The latter statement suggests an additional reason to treat enforcement personnel like police. They are in the business of enforcing rules, and they are judged by evidence that they have successfully responded to misconduct. This can lead to over-zealous enforcement that needs to be restrained by the warrant and probable cause requirements.

The plurality also spoke of the need for quick discipline, and this implies that it considered routine, quickly resolvable

⁸² See *id.* §§ 50.104(a)(5) & (6) (describing the situations in which the OSI may choose to undertake its own investigation of possible scientific misconduct).

⁸³ See *id.* § 50.104(a)(7).

disciplinary matters as not being important enough to justify substantial procedures. However, at least certain administrative enforcement matters are grave enough to justify full warrant and probable cause protections. Of course, scientific misconduct proceedings are especially grave administrative enforcement actions. Conviction of scientific misconduct is tantamount to an academic death sentence. It is often considered worse than certain felonies. Consider, for example, an article on the topic whose title captures the idea that scientific misconduct is equivalent to crime: *Scientific Misconduct: A Form of White Coat Crime*.⁸⁴

It is helpful to consider more closely the *Ortega* plurality's statement that most public employers, including hospital personnel, have no reason to be familiar with warrant and probable cause requirements.⁸⁵ Even if the administrative officials or RIO's responsible for enforcing the federal regulations are not familiar with warrant and probable cause requirements, universities large enough to employ faculty who obtain federal grants invariably have legal staffs who might not be, but certainly should be, familiar with those mandates. Therefore, the warrant and probable cause requirements fit the context of scientific misconduct in public research universities even if they are assumed, *arguendo*, to be inappropriate in most workplace settings.

Furthermore, the language in the *Ortega* plurality that creates a special exemption from the warrant and probable cause requirements in the general public workplace setting is found in the context of the broader requirement that there be a balancing of interests. All public employees are entitled to respect of their privacy. In the public university setting, however, there is an additional interest in academic freedom. Academic freedom must be given considerable weight in any balancing process because it is an institution recognized to protect the public interest

⁸⁴ Sandy Kline, *Scientific Misconduct: A Form of White Coat Crime*, J. PHARMACY & L. 15 (1993).

⁸⁵ The plurality's point is not very strong, at least concerning hospitals. Hospitals usually have access to attorneys to advise them on multiple matters. Nevertheless, large research universities certainly have greater access to attorneys than do most hospitals. Indeed, many research universities include hospitals within their structure. The plurality also fails to explain how employers will be able to understand the alternative, reasonable cause requirement.

by assuring "the ardor and fearlessness of scholars."⁸⁶ It is denigrated if enforcement personnel can conduct intrusive searches without a search warrant. It is also true that public university professors have a heightened expectation of privacy. This is consistent with the autonomy essential to their creativity and position as unique spokespersons for the public interest and truth. This additional value should tip the scales in favor of professors' rights to privacy.

It might be argued that Dr. Ortega himself was a professor, and so one cannot suppose that the plurality's reasoning can be found inapplicable to the scientific misconduct setting. However, there is no indication that Dr. Ortega was working in a public research university setting with the expectations and protections related thereto. Indeed, there is much indication that he was little more than a civil service employee subject to dismissal on fairly thin grounds after relatively lax procedural protections.

Specifically, although Dr. Ortega litigated for years over the search and seizure he was subjected to, there is not one word of any attempt by him to overturn a finding by a civil service personnel board that he was subject to dismissal. This indicates that he was little more than an "at will" employee because the only charges suggested against him were found, in the opinions discussed above, to be without enough merit to even justify the initiation of the search and seizure he was subjected to, let alone support a dismissal for reasons that would be necessary to dismiss a tenured faculty member at a public research university. Recall, moreover, that Dr. Ortega had been in his position for seventeen years. Public research universities invariably have "up and out rules" pursuant to which a *professor* must be promoted to tenured status or dismissed long before seventeen years.

Remember also that the *Ortega* plurality reasoned that there was a need for quick discipline that would be interfered with by requiring formal legal trappings in employee disciplinary proceedings. This value is simply not at stake in the public univer-

⁸⁶ *Sweezy v. New Hampshire*, 354 U.S. 234, 262 (1957) (Frankfurter, J., concurring) (speaking of the need to protect the "ardor and fearlessness of scholars"); see also, e.g., Julius G. Getman & Jacqueline W. Mintz, Foreword, *Academic Freedom in a Changing Society*, 66 TEX. L. REV. 1247 (1988) (supporting the notion that scholars/academics must be free to pursue research interests without fear of reprimand); THE CONCEPT OF ACADEMIC FREEDOM (Edmund L. Pincoffs ed., 1975).

sity setting when a tenured or tenure-track professor is accused of scientific misconduct. In that context, there will be prolonged internal proceedings before appropriate committees with a right of at least some review in the courts. Interference with swift discipline is not a value because quick discipline is deliberately considered inappropriate.

Thus far it has been argued that: (1) the *Ortega* plurality's implications that the warrant and probable cause requirements apply to administrative enforcement actions and to closed luggage, briefcases, carrying cases, and other personal property employees take to work imply broad protection in scientific misconduct proceedings; (2) the very balancing test that the *Ortega* plurality found to justify exceptions to the warrant and probable cause requirements in the setting there leads to an opposite conclusion in scientific misconduct proceedings at public research universities; (3) the alleged impracticability and inefficiency of imposing warrant and probable cause requirements in hospitals and most public employment settings does not exist at public research institutions where legal expertise is readily available; and (4) the warrant and probable cause requirements obviously apply to searches and seizures in researchers' homes. The *Ortega* plurality opinion actually provides substantial protection to researchers, and, to the extent it suggests limitations upon additional protections, it is distinguishable. It should also be added that, to the extent the *Ortega* plurality opinion is construed to bar any particular protections, it should be rejected as non-binding and inferior to the more protective approach embraced by the *Ortega* dissenters and the commentators generally.⁸⁷

Let us fill out the *Ortega* dissenters' criticism that the plurality did not anchor its reasoning in any concrete facts neces-

⁸⁷ See Heather L. Hanson, Note, *The Fourth Amendment in the Workplace: Are We Really Being Reasonable?* 79 VA. L. REV. 243 (1993) (evaluating the Supreme Court's approach to Fourth Amendment analysis in the employment context); Stephen J. Schulhofer, *On the Fourth Amendment Rights of the Law-Abiding Public*, 1989 SUP. CT. REV. 87 (discussing various courts' efforts to limit rights by expanding searches and seizures); *The Supreme Court, 1986 Term: Leading Cases*, 101 HARV. L. REV. 119, 230-40 (1987) (reviewing constitutionality of search and seizure directed at public employees). *But see* William J. Stuntz, *Implicit Bargains, Government Power, and the Fourth Amendment*, 44 STAN. L. REV. 553 (1992) (stating that if government could not search private spaces, it would strip employees of all such spaces; therefore employees benefit by a rule giving public employers wide latitude in workplace searches).

sary to craft a realistic opinion. The plurality made a large mistake by equating, in its balancing, the contexts of investigatory and non-investigatory searches. The former are hostile and target the employee himself. They are likely to entail a search for unspecified, personal items that might be used to advantage in a prosecution. Such prosecutions can involve substantial expense, stigma, and deprivation of privacy for the researcher. They are likely to be rare, and requiring a warrant or probable cause in these few instances is unlikely to disrupt the employer's functioning.

Noninvestigatory searches, on the other hand, are, by definition, aimed solely at specific employer property and are unlikely to require examination of personal items the employee has attempted to separate in the workplace. They are also more frequent. In this latter context, therefore, warrants and the probable cause requirement are arguably both more disruptive and less necessary.⁸⁸ This context might be analogized to the administrative inspection—such as housing searches—in which the courts have developed various exceptions and qualifications to the warrant and probable cause requirements.⁸⁹ Of course, scientific misconduct searches are investigatory, rather than non-investigatory, searches. They therefore merit full protections.

The *Ortega* dissent also correctly points out that, in the modern work world, and with both parents often holding jobs, the distinction between home and office has evaporated. Many personal items are inevitably brought to work. This is especially true in the scientific misconduct setting because professors not only often live at the office, but also frequently work at home. And professors do not just bring personal items to the workplace and their offices. They might even keep their files relating to counseling of students, consulting work, or intellectual endeavors performed on their own time. Their privacy and property rights, as well as those of third parties, are likely to be

⁸⁸ See *The Supreme Court, 1986 Term: Leading Cases*, *supra* note 88, at 236-37 (stating that routine searches for government files do not focus on the employee personally and therefore pose a lesser threat to privacy interests).

⁸⁹ See *LAFAYE*, *supra* note 33, §§ 10.1-10.11; *HALL*, *supra* note 33, §§ 34.1-34.38.

invaded by searches and seizures directed at their offices and the contents thereof.

Another strong indication that both the warrant and probable cause requirements should be held to apply to at least most scientific misconduct searches and seizures at public research universities is found in *Rossi v. Town of Pelham*.⁹⁰ There, the plaintiff town clerk and tax collector was ousted in an election. Pending the transition, she intended to perform an audit required by state law by taking financial records to her home. Certain town officials learned of this plan, and to prevent it they ordered her not to take the records *and* posted a police officer inside her office. She sued the officials under 42 U.S.C. § 1983 and various state law theories, claiming that the police officer's presence in her office constituted an unreasonable search of her office, an unreasonable seizure of her person, and an unreasonable seizure of her property. The defendants moved for summary judgment.⁹¹

The court first held that it was irrelevant that the purpose of the police officer's presence was to prevent removal of records as opposed to discovering evidence. There was a "search" in any event. The court next held that plaintiff had a reasonable expectation of privacy in her office. It observed that four factors—(1) whether the work area is given over to the employee's exclusive use; (2) the extent to which others have access to the workspace; (3) the nature of the employment; and (4) whether office regulations placed the employee on notice that the disputed area was subject to occasional intrusions—had been developed to guide the case-by-case determination called for by the *Ortega* plurality on this issue.⁹² Each of the factors supported a reasonable expectation of privacy here.

The court next analyzed the reasonableness of the intrusions. It pointed out that exceptions are made to the requirement of a warrant only when "the burden of obtaining a warrant is likely to frustrate the governmental purpose behind the search."⁹³ It then reasoned that this exception should only be applied when the government uses the least restrictive means to

⁹⁰ 35 F. Supp. 2d 58 (D.N.H. 1997).

⁹¹ *See id.* at 62.

⁹² *See id.* at 64 (citing *Vega-Rodriguez v. Puerto Rico Tel. Co.*, 110 F.3d 174, 179 (1st Cir. 1997)).

⁹³ *Id.* (quoting *O'Connor v. Ortega*, 480 U.S. 709, 720 (1987) (quoting *Camara v. Municipal Court*, 387 U.S. 523, 533 (1967))).

achieve its purposes. It provided an excellent review of least restrictive alternative analysis in Fourth Amendment jurisprudence that merits extensive quotation:

It is a fundamental tenet of American jurisprudence that “[i]n every case [state power] must be so exercised as not, in attaining a permissible end, unduly to infringe the protected freedom.” [Citations omitted.] “Unduly” means more than necessary, and the enunciated principle confines the government to the least intrusive means adequate to achieve its goals. “Even though the governmental purpose be legitimate and substantial, that purpose cannot be pursued by means that broadly stifle fundamental personal liberties when the end can be more narrowly achieved.” The least intrusive means test has been held to govern some aspects of Fourth Amendment jurisprudence. *See Florida v. Royer*, 460 U.S. 491, 490-500[sic], 103 S. Ct. 1319, 75 L.Ed.2d 299 (1983) (“the investigative methods employed [by an officer conducting a Terry stop] should be the least intrusive means reasonably available to verify or dispel the officer’s suspicion in a short period of time... The scope of the detention must be carefully tailored to its underlying justification.”)[citation omitted.]

Even though the extent to which the least intrusive means requirement is appropriate in Fourth Amendment jurisprudence is unsettled, this court believes that a warrantless search should not be upheld as constitutional unless it was the least intrusive means to achieve the governmental purpose. The well-established test for an exception to the warrant requirement is “whether the burden of obtaining a warrant is likely to frustrate the governmental purpose behind the search.” This test implies a least intrusive means inquiry. The burden of obtaining a warrant would not frustrate the governmental purpose behind the search if an alternate, less intrusive means than the search will nonetheless fully realize the governmental purpose, stripping away the necessity of a warrantless search. Thus, the test for a warrant exception is not met when a less intrusive means than the

warrantless search will fully realize the governmental purpose.⁹⁴

The court then made the obvious observation that a less restrictive alternative to posting a police officer in plaintiff's office was to have a supervisor there, and it therefore concluded that a warrant was required. It reasoned that the *Ortega* plurality's exceptions to the warrant and probable cause requirements do not hold in cases where the government's actions obviously are not the least restrictive alternative available to it.⁹⁵ It therefore denied the defendants' motion for summary judgment on this issue of the validity of the search of plaintiff's office, and actually found the search unconstitutional as a matter of law.⁹⁶

Finally, the court rejected plaintiff's claims of unlawful seizure of her property and her person and granted summary judgment for defendants on these issues. The court held there were sufficient intrusions on both to constitute seizures, but also concluded that the seizures were reasonable given the defendants' interests in protecting the town's financial records.⁹⁷

The *Rossi* court recognized and discussed the uncertain state of the law concerning application of the least restrictive alternative principle in Fourth Amendment analyses. The court's limited use of the principle to require a warrant and probable cause in the situation before it was nevertheless on firm ground. Its reasoning is, in part, equivalent to that of the *Ortega* dissenters. Specifically, both reason that the Supreme Court early held that exceptions to the warrant and probable cause requirement are to be made only when those mandates are not feasible. This, in turn, is an application of the least restrictive alternative principle, the reasoning being that the more restrictive alternatives to warrants and probable cause are permissible only when the less intrusive alternatives of warrants and probable cause are not feasible.⁹⁸

⁹⁴ *Id.* at 66.

⁹⁵ *See id.* at 65-68.

⁹⁶ *See id.* at 69 (holding that a police officer's warrantless search of employee's office was unreasonable and violated her Fourth Amendment rights).

⁹⁷ *See id.* at 69-72.

⁹⁸ The least restrictive alternative principle also logically includes a requirement that the state use more effective, albeit no less restrictive, alternatives. For a general discussion of the principle see Roy G. Spece, Jr., *The Most Effective or Least Restrictive Alternative as the Only Intermediate and Only Means-Focused Review in Due Process and Equal Protection*, 33 VILL. L. REV. 111 (1988).

Reinforcing the limited use of the least restrictive alternative principle as ventured in *Rossi* is a classic article that argues for use of the principle in Fourth Amendment jurisprudence generally;⁹⁹ an article that supports use of "strict scrutiny," including the least restrictive alternative principle, whenever warrantless searches are being analyzed;¹⁰⁰ and cases that apply the least restrictive alternative principle as a factor to include in the balancing process utilized to determine the reasonableness of searches and seizures,¹⁰¹ a means to question the government's stated motives for venturing a search or seizure,¹⁰² as a requirement that clearly feasible and less restrictive alternatives be implemented,¹⁰³ or as a requirement that the government at least supply some facts that support the unfeasibility of less restrictive alternatives.¹⁰⁴

Rossi uses the least restrictive alternative principle in the most limited sense among those suggested by the foregoing authorities, and it is therefore easier to justify. It does not direct courts to question the government's motives, to determine whether its goals are compelling, to assume the burden of presenting facts on the feasibility of alternatives, or to use the *least* restrictive alternative. Rather, it simply requires the government to utilize clearly established, feasible alternatives. Such limited use of the least restrictive alternative analysis seems especially appropriate in light of the Ninth Circuit's favorable reference to less intrusive alternatives upon remand from the Supreme Court

⁹⁹ See Nadine Strossen, *The Fourth Amendment in the Balance: Accurately Setting the Scales Through the Least Restrictive Alternative Analysis*, 63 N.Y.U. L. REV. 1173 (1988).

¹⁰⁰ See Wayne D. Holly, *The Fourth Amendment Hangs in the Balance: Resurrecting the Warrant Requirement Through Strict Scrutiny*, 13 N.Y.L. SCH. J. HUM. RTS. 531 (1997).

¹⁰¹ See, e.g., *Brousseau v. Town of Westerly*, 11 F. Supp. 2d 177, 183 (D.R.I. 1998) (showing that the school employed several alternative methods before using a bodily search of a student).

¹⁰² See, e.g., *People v. Velleff*, 419 N.E.2d 89 (Ill. App. Ct. 1981) (holding that an objective and subjective test must be satisfied to find probable for search and seizure of plastic bag in defendant's car).

¹⁰³ See, e.g., *Nelson v. City of Irvine*, 143 F.3d 1196 (9th Cir. 1998) (holding that if plaintiffs were willing to take a breath or urine test, then it was unreasonable for the police to make them take a blood test).

¹⁰⁴ See, e.g., *United States v. Velasquez*, 1997 WL 564674 (N.D. Ill. Sept. 5, 1997) (holding sufficient probable cause existed to authorize the interception of all wire communications).

in *Ortega*. Recall that, on this point, the Ninth Circuit relied upon language in the *Ortega* plurality's opinion.¹⁰⁵

The *Rossi* court's analysis can be directly applied to the scientific misconduct context because there are clearly accepted and feasible less restrictive alternatives to the way searches and seizures are now conducted there. As explained in Part I of this article, although Dr. Rich recommends that scientific experts guide the determination of what is necessary for a conviction and thereby define the scope of any search and seizure, the ORI Model Policy calls for immediate search and seizure upon notification to the accused that an inquiry will occur. The determination to undertake an inquiry is made by a solitary administrator, the RIO, and the inquiry panel, which is required to have sufficient expertise and might guide the RIO's search and seizure, is not required to be appointed until ten days later.

Obvious less restrictive alternatives that would be no more costly, but would serve to protect professors against massively intrusive and unnecessary searches and seizures would be to require that the panel be appointed before any search and seizure, that its expertise be both sufficient and utilized to guide any search and seizure, and that the accused be offered an opportunity to witness and reasonably guide the search and seizure. In the absence of these obvious less restrictive alternatives, warrants and probable cause should be required even if one rejects the other reasons stated above for keeping those requirements in the scientific misconduct context.¹⁰⁶

Even if the least restrictive alternative principle were not accepted as supporting the warrant and probable cause requirements, failure to use clearly less restrictive and feasible alternatives, such as informed, focused searches and researcher participation in the process, should count in the balancing process used to judge alternatives to warrants and probable cause. It should tip the scales in favor of finding any unnecessarily intrusive search or seizure to be unreasonable. It must be emphasized that this is not an argument that the least restrictive alternative principle should be used in all balancing and reasonableness determinations in Fourth Amendment jurisprudence. It is a lim-

¹⁰⁵ See *supra* note 69 and accompanying text.

¹⁰⁶ As indicated in the text above, the least restrictive alternative principle could be directly applied to require use of warrants and probable cause whenever less restrictive alternatives are feasible. It is also developed in the text above that warrants and probable cause are feasible in the scientific misconduct context.

ited argument that the principle should at least be utilized if the warrant and probable cause requirements are found not applicable and a balancing process is used to judge the resulting warrantless search or seizure.

Cases relevant on this point are *Schowengerdt v. General Dynamics*,¹⁰⁷ and *Varando v. Department of Employment and Training*.¹⁰⁸ In *Schowengerdt*, the Ninth Circuit held that summary judgment was precluded because there was a question of fact whether the search of a civil service engineer's desk and credenza for sexual materials was work-related when the government might not have "narrowly tailored" its search to meet its legitimate interests. The court reasoned that this disputed question of fact was relevant to both the issue whether a warrant was required and the issue whether the search was reasonable even if a warrant was not required. Similarly, in *Varando*, the appellate court upheld the trial court's finding that there was no reasonable cause for a search and seizure because the offending official did not "consider any other way to obtain the information he desired."

It is important to explain that if a balancing process is utilized, it should not be supposed that the specific less restrictive alternatives suggested here (informed, focused searches and research participation) will interfere with the goals of scientific misconduct regulations. To the contrary, focused, researcher-assisted searches and seizures actually should enhance the accuracy and effectiveness of scientific misconduct proceedings.¹⁰⁹

¹⁰⁷ 823 F.2d 1328 (9th Cir. 1987) (holding that civil service employee has a constitutional right to be free from unnecessary and overbroad searches unrelated to his work).

¹⁰⁸ 687 So. 2d 1013 (La. Ct. App. 1996) (affirming that the search of plaintiffs' offices was unreasonable and violative of their Fourth Amendment rights).

¹⁰⁹ It is beyond the scope of this article to discuss the usefulness of scientific misconduct proceedings in light of alternative corrective mechanisms. On this issue see Debra M. Parrish, *The Federal Government and Scientific Misconduct Proceedings, Past, Present and Future as Seen Through the Thereza Imanishi-Kari Case*, 24 J.C. & U.L. 581 (1998) (discussing how the Thereza Imanishi-Kari case was looked at in both the old and current "regime" of handling scientific misconduct); Lars Noah, *Sanctifying Scientific Peer Review: Publication as a Proxy for Regulatory Decision-making*, 59 U. PITT. L. REV. 677 (1998) (exploring how peer review is being used as a predicate for medico-legal judgments); Steven Benowitz, *Observers Say Fisher Case Highlights Flaws in System*, THE SCIENTIST, Mar. 31, 1997, at 1. We will note, however, that attorney Gunsalus stated, in the educational workshop discussed in part one of this article, that there was only one conviction for scientific misconduct in the approximate decade during which she dealt with such cases at her institution. This

The next question we will address is whether the probable cause requirement should apply even if the warrant requirement does not apply. The *Ortega* plurality considered this as a distinct possibility, but it ultimately found that neither requirement should apply in most instances. The reason why the probable cause requirement could be maintained even without the necessity of a warrant is that the latter might be thought more burdensome on the government, involving costly court proceedings. Once again, the exemption from the warrant and probable cause requirements can only follow, even under the view most favorable to the government, from a balancing process in which the individual's interest in privacy is swamped by the governmental interests involved. Even if the requirement of a warrant is thought too burdensome, that does not mean that a probable cause requirement would be too onerous, especially in the context of public research universities which have legal staffs who should possess the requisite expertise in-house. At the same time, it can be argued that the probable cause requirement is especially important to protection of individual privacy in the scientific misconduct process because of the potentially vast searches the proceedings might lead to and the large number of private and valuable materials or intellectual property—belonging to the researcher or affiliated third parties—that might be erroneously seized.

The next question becomes: What evidence is necessary to support a search and seizure of a professor's private matters and materials under either the probable cause or the reasonable cause requirement? We tried to make obvious in Part I of this article that we object to the criteria for proceeding with investigations and searches and seizures listed by attorney Gunsalus. Her stated intent is to protect both universities and researchers from "crazed whistleblowers" by "imposing process," but she overlooks the massive intrusions that are invited by simultaneous initiations of inquiries and searches and seizures.

She also overlooks that the regulations themselves provide protection to complainants only if they act in "good faith."¹¹⁰ Recall that she argues that motives should not be considered when deciding whether to initiate an inquiry. This is wrong,

experience seems representative, and it obviously raises a question whether the outcomes of the process are justified by its salient expenses, both pecuniary and otherwise.

¹¹⁰ 42 C.F.R. § 50.103(d) (2).

given the good faith qualification. Of course, conflicts of interest directly bear on motives, and they too are condemned in the regulations.¹¹¹ Attorney Gunsalus also overlooks that scientific misconduct proceedings can be misused by either competitors (colleagues or others) or administrators bent on controlling dissidents. As former National Institutes of Health Director Bernadine Healy stated when she insisted on adding an appeals board with an adversarial process to scientific misconduct oversight: “[I] came full circle to thinking that an adversarial system was necessary... It had become obvious that this was a totally polluted system where these scientists got behind closed doors and worked out their venom, taking down their colleagues. It was a star chamber, a travesty of justice.”¹¹² Given the potential for abuse, conflicts of interest should be considered when determining whether an allegation merits an inquiry and concomitant search and seizure. Good faith requires no less.

The overarching question under the probable cause requirement is whether there is sufficient information possessed to make it probable or likely that the accused is guilty of scientific misconduct. Under the reasonable cause or suspicion requirement the question is whether there is sufficient information possessed to raise a reasonable possibility that the accused is guilty of scientific misconduct. As discussed above, it is not clear whether the probable cause requirement actually stipulates a quantum of proof beyond fifty percent probability, but that seems to be the best reading. It only seems logical to suppose that reasonable cause or suspicion is a step down from the more rigorous probable cause requirement. Recall, on the other hand, that one view is that it is not appropriate to attempt to quantify “probable cause.” By parity of reasoning, it might not be appropriate to quantify “reasonable cause.” The very uncertainty here is another reason to adopt the probable cause standard in all scientific misconduct proceedings. “Reasonable cause” is subject to a reading that requires little more than a scintilla of data and a very low probability.

Ultimately, the probable cause or reasonable cause requirement must take meaning from a developing body of cases. Let us return, therefore, to the case of Dr. Kay. Her case arguably

¹¹¹ *Id.* § 50.103(d)(9).

¹¹² Gina Kolata, *Inquiry Lacking Due Process*, N.Y. TIMES, June 25, 1996, at C3.

involves either a voluntary relinquishment of her materials to her employer or a search to which she does not have standing to object. It could be argued that there was a voluntary relinquishment because Biomedical Communications is simply a part of the University, and it is the University that allegedly searched for and seized her materials. This is not persuasive, however, because one does not expect that sharing personal materials with, say, a co-employee or co-researcher is a voluntary relinquishment to the employer. At the same time, the co-employee or co-researcher might have a reasonable expectation of privacy in honoring the confidentiality that might have been understood explicitly or implicitly in the exchange of materials, albeit at the workplace. If the latter reasoning is accepted, there is probably a search, but it is directed toward a third party, and the researcher might not have standing to object to the search of her colleague that resulted in seizure of her personal materials from that colleague.¹¹³ Nevertheless, Dr. Kay's case can be most instructive if it is assumed, hypothetically, that personal materials were seized from her home or private filing cabinets in her personal office at the University where she alone had keys to the office and the cabinets.

¹¹³ See 5 WAYNE R. LAFAVE, *SEARCH AND SEIZURE: A TREATISE ON THE FOURTH AMENDMENT* § 11.3 (3d ed. 1996); 1 JOHN WESLEY HALL, JR., *SEARCH AND SEIZURE* §§ 6.1-6.19 (3d ed. 2000). Two additional points will be mentioned. First, if Biomedical Communications is conceived to be a separate entity that can object to demand for Dr. Kay's materials, the demand itself might be conceived to be akin to a subpoena or request for production of documents as to which it could have and should have objected. If so, the issues could become ones of Fifth Amendment privilege against self-incrimination and due process of law. See HALL, *supra* note 33, §§ 39.1-39.20. Second, it is conceivable, although not likely, that even if Biomedical Communications were conceived to be a separate entity, a person in Dr. Kay's circumstances could overcome a standing objection by claiming that Biomedical Communications and entities like it are analogous to lawyers to whom one's confidential information is turned over for necessary advice and assistance in the context of a sacred and privileged relationship. Regarding the special protections attendant to searches of attorneys' offices pertaining to materials of their clients, see LAFAVE, *supra* note 47, §4.1(h); Hall, *supra* note 33, §39.11. The protections afforded to materials in the possession of one's attorney are not complete and the analogy to that context is obviously not perfect. The argument might be buttressed, however, by pointing out the importance of the scientific enterprise, its centrality to academic freedom, and its relationship to the First Amendment. Regarding the latter, see, for example, Roy G. Spece, Jr. & Jennifer Weinzierl, *First Amendment Protection of Experimentation: A Critical Review and Tentative Synthesis/Reconstruction of the Literature*, 8 S. CAL. INTERDISC. L.J. 185 (1998).

As explained above, the scientific misconduct charges made against Dr. Kay were either scientifically absurd or without any substantiation whatsoever. Moreover, it was ridiculously simple to unearth the lack of substantiation. It merely required discussions and requests to the accuser and the accused as well as review of a published review article. This case, then, did not present one of either probable or reasonable cause to proceed with an inquiry or a search and seizure based on scientific misconduct. It is also true that one should consider the conflicts of interest of both Ms. Cover and Dr. Cusanovich in assessing this situation. First, Ms. Cover had resigned from Dr. Kay's laboratory over a question of hours and compensation. This created a potential conflict of interest in the form of expected animosity. Second, Ms. Cover had filed a claim for injuries allegedly incurred in the freezer unplugging incident. If she could convince people that Dr. Kay unplugged the freezer as part of a plot to embezzle money, her claim would be strengthened immensely. This is an obvious financial conflict of interest.

Likewise, Dr. Cusanovich and Dr. Kay had a long-standing feud well before any allegations were made against Dr. Kay. He should have recused himself from the process. On the other hand, it should be pointed out that physicians and scientists are not well schooled in conflicts of interest, and many or most of them need to become better educated and more sensitive on the topic.¹¹⁴ In the same vein, vice presidents for research are placed in a very contentious role. They administer large sums of money, space, and other resources, and they must make decisions that are inevitably bound to upset some researchers. We say this as a preface to a recommendation that the RIO and entire scientific misconduct process and administration be removed from the Office of the Vice President for Research to avoid ineluctable conflicts of interest.

The next question becomes what the proper scope of a search and seizure is, because, as the *Ortega* plurality correctly points out, a search must be judged in its inception and its scope. Once again, this depends on whether the probable cause or reasonable cause is required. Above, the question was whether there was probable cause or reasonable cause to believe that the accused is guilty of scientific misconduct. Here, on the

¹¹⁴ See CONFLICTS OF INTEREST IN CLINICAL PRACTICE AND RESEARCH at ix (Roy G. Spece, Jr. et al. eds., 1996).

other hand, the question is whether there is probable or reasonable cause to believe that data relevant to such misconduct will be found in a certain place that is proposed to be searched. Generally, there is neither probable cause nor reasonable cause to believe that a professor's private matters or materials will house data that could not be obtained simply by asking the professor to produce copies of all data and information relevant to an allegation of scientific misconduct.

On the other hand, there is every reason to believe that search of a professor's private office, desk, filing cabinets, similar spaces, and materials therein will consist primarily, if not solely, of personal items and information. These might include recorded thoughts and materials relevant to teaching, personal, or consulting projects as opposed to matters related to federally or locally funded grants, and other miscellaneous items having no relationship to a specific charge of scientific misconduct. Materials relevant to federally or locally funded projects should be contained in laboratory notebooks and other spaces or containers in the laboratory itself. This space is not likely to be considered private by either the researcher, the institution, or the courts.

This is to say that items that are likely to be at least partially university or federally funded are likely to be found outside the professor's office or other private spaces in the workplace. Items outside these protected zones are subject to directed sharing with the institution without any probable cause or reasonable cause requirement. This does not mean that there are no reasonable expectations of privacy and resulting Fourth Amendment limitations in a laboratory. For example, there are restrictions on the university placing a hidden camera to spy upon the professor and his assistants while in the laboratory.¹¹⁵ Moreover, as indicated in *Rossi v. Town of Pelham*,¹¹⁶ discussed above, the employee (in the present context a professor) can have a possessory interest protected by the Fourth Amendment in property that belongs to the employer. Recall the point that loose talk about university "ownership" of huge realms of property is unacceptable here; ownership is not a monolithic all-or-nothing concept—it must be calibrated to the circumstances.

¹¹⁵ Cf. *State v. Coleman*, 856 P.2d 121 (Kan. 1993) (finding a reasonable expectation of privacy in post office breakroom intruded upon by warrantless video surveillance as part of criminal investigation).

¹¹⁶ See *supra* notes 90-97 and accompanying text.

In *Rossi*, the interest was in town financial records the plaintiff needed access to in order to comply with a state law requiring an audit. In the case of a professor, access to research data and materials is needed to continue fulfilling the requirements of the granting agency as well to exercise one's profession and academic freedom. This is where Dr. Price's advice to quickly copy all records, discussed in Part I of this article, does have some validity. We raised a criticism above that he seemed to call for too great a sweep in any search and seizure. However, once a search and seizure is carefully tailored, it is crucial to quickly copy all materials so as to minimize the intrusion on the professor's ongoing research. (To the extent materials cannot be duplicated, other reasonable arrangements for preservation and concomitant access must be made.) If not, there will be an unreasonable seizure.

Dr. Kay has stated to us that certain of her personal items were seized from Biomedical Communications, and that they were not promptly returned to her. Indeed, if she had been able to proceed with her career, certain of these materials would have been necessary to some of her intellectual activities within and without the University. Ironically, however, this became moot because her research was trashed by more drastic action than any sweeping search and seizure. Her laboratory was shut down based upon apparently erroneous or trivial safety allegations. Although she was subsequently ostensibly returned to her faculty status following two decisions of the Pima County Superior Court, she was barred from both her laboratory and the University generally. Thus, although she has not been found guilty of anything, she has been deprived of her profession for what is now over two years.

Once again, clearer meaning as to the *scope* of permissible searches and seizures will have to await development of a body of cases involving concrete factual situations. Let us turn for some guidance, once again, to the case of Dr. Kay. Under the ORI procedures as described above, all notebooks, if any, relating to specific charges of scientific misconduct against Dr. Kay should have been copied and sequestered no later than March 13, 1997, when Dr. Kay was notified that the UCEC was conducting an inquiry involving allegations against her. As explained above, however, no such steps were taken. Indeed, Dr. Kay had been attempting to obtain laboratory materials she alleged were taken by Ms. Cover when she resigned employment

with Dr. Kay. Ms. Cover seems to have conceded as much if one believes what the police say she told them when she reported her car stolen on March 12, 1997.

This all might seem moot because the only search and seizure we have described applied to the requests for slides, grant proposals, and other materials from Biomedical Communications. The matter is not that simple. First, recall what the request to Biomedical Communications sought: anything else relating to Dr. Kay or a named former graduate student. This is just the sort of "cleaning out the laboratory" that Dr. Rich warned against. Even Dr. Price would likely balk at such a wide sweep.

On the other hand, new evidence and material might have emerged between the March 13, 1997 initiation of an inquiry and the much later investigation launched by Dr. Cetas and the Committee on Academic Freedom and Tenure. Perhaps there was a general charge of failure to meet standards expected of a professor. The reasoning might be that such a general charge and initial indications of it possibly being true might justify seizure of "anything and everything." Recall also that the NSF definition of scientific misconduct speaks of "other serious deviation from accepted practices," while the PHS definition refers to "other practices that seriously deviate from those that are commonly accepted within the scientific community." If an NSF grant were at issue, the institution could attempt to justify a sweeping search and seizure by arguing that it was dictated by an expert determination that the researcher's conduct constituted a significant deviation from "accepted practices."

Even an institution limited to the PHS definition (such as the University of Arizona in this instance) could attempt to justify "cleaning out" the researcher's laboratory by asserting that there were indications of a general failure to adhere to commonly accepted practices. Even in this scenario, however, it is still unreasonable to request anything and everything. One is still limited to anything and everything *pertinent to federally and locally funded research*. In other words, even under the most capacious interpretation of what is permissible, the request for anything and everything related to Dr. Kay was improper.

What is ironic is that although UCEC notified Dr. Kay that charges of scientific misconduct against her had not been substantiated, it was later suggested that this was possibly the result of Dr. Kay trying to hide wrongdoing. As explained above, this

is one possible explanation for the fact that scientific misconduct proceedings were carried out by two different panels of the Committee on Academic Freedom and Tenure. Dr. Kay was told by an attorney hired by the university to represent CAFT that she could not be dismissed as a result of these proceedings, and she was limited to fifteen hours to present her case in chief and to cross examine prosecution witnesses in what turned out to be a dismissal hearing. She was also denied representation of an attorney, a requirement of Arizona law. She was "convicted" and subsequently dismissed by the university president after she refused his offer of a guilty plea and one year without pay and with psychological counseling. (There was never any evidence or indication of a psychological diagnosis.)

Subsequently, the Arizona courts found the university's actions to have been arbitrary and capricious, and this negated the CAFT proceedings and Dr. Kay's dismissal. Therefore, the university president simultaneously reinstated her and then fired her subject to appeal and "retrial" before a new CAFT panel. The bases of the new dismissal, set forth in a letter from the university provost to Dr. Kay, were the findings from the now defunct CAFT proceedings *and* a general allegation of failure to abide by standards expected of a professor in her position.¹¹⁷ As the page proofs of this article were being read, articles in local newspapers reported that the University had already spent close to \$ 1 million in attorneys' fees in the Kay proceedings.¹¹⁸ This was in addition to services provided by the University's in-house law firm of ten lawyers, five "legal assistants," and one "investigator." The yearly salaries of those personnel total \$987,520. The saga continues.

¹¹⁷ Regarding the facts in this paragraph, see *supra* note 5.

¹¹⁸ See Eric Westlander, *UA Spends \$1M to Oust Prof*, TUCSON CITIZEN, Mar. 29, 2001, at 1A; *The Skinny*, TUCSON WKLY., June 7-13, 2001.