

A University Perspective on Retractions

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Research Integrity Officer



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Questions

- What is the a university perspective on retractions?
- How does that compare to other stakeholders?
- What are some of the challenges that universities and RIOs face with regard to retractions?
- A case study



How do Universities Think about Retractions?

- I thought about my own experience and also polled ~ dozen senior colleagues
 - Only two could recall encountering a retracted article
 - None could think of a retracted article that had influenced their field
 - None reported it being something they talk about with colleagues
 - Generally felt it was rare and not a significant concern



The Internet Effect

- Pervasive reaction: online access had reduced the problem
 - One (junior) person commented on online pre-publication review as making retractions less likely
 - No mention of PPR (e.g., Pub Peer, Retraction Watch, Claire Francis)
 - Online access assumed to make it easier to identify retractions. Really?**



Making it Easy to Find Retractions: Case 1



Visfatin: A protein secreted by visceral fat that mimics the effects of insulin ▼

Scholar

Articles

[Visfatin: a protein secreted by visceral fat that mimics the effects of insulin](#)

A Fukuhara, M Matsuda, M Nishizawa, K Segawa... - ..., 2005 - [science.sciencemag.org](#)

Case law

Abstract Fat tissue produces a variety of secreted proteins (adipocytokines) with important roles in metabolism. We isolated a newly identified adipocytokine, visfatin, that is highly enriched in the visceral fat of both humans and mice and whose expression level in ...

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- ☐ 1. **Visfatin: A protein secreted by visceral fat that mimics the effects of insulin** (Retraction of vol 307, pg 426, 2005)

By: Fukuhara, Atsunori; Matsuda, Morihiro; Nishizawa, Masako; et al.
SCIENCE Volume: 318 Issue: 5850 Pages: 565-565 Published: OCT 26 2007

Find it at

- ☐ 2. **Visfatin: A protein secreted by visceral fat that mimics the effects of insulin** (Retracted article, see vol 318, pg 565, 2007)

By: Fukuhara, A; Matsuda, M; Nishizawa, M; et al.
SCIENCE Volume: 307 Issue: 5708 Pages: 426-430 Published: JAN 21 2005

Find it at

View Abstract



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Making it Easy to Find Retractions: Case 1

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PubMed Advanced

Abstract Send to:

Science. 2005 Jan 21;307(5708):426-30. Epub 2004 Dec 16.

Visfatin: a protein secreted by visceral fat that mimics the effects of insulin.

[Fukuhara A¹](#), [Matsuda M](#), [Nishizawa M](#), [Segawa K](#), [Tanaka M](#), [Kishimoto K](#), [Matsuki Y](#), [Murakami M](#), [Ichisaka T](#), [Murakami H](#), [Watanabe E](#), [Takaqi T](#), [Akiyoshi M](#), [Ohtsubo T](#), [Kihara S](#), [Yamashita S](#), [Makishima M](#), [Funahashi T](#), [Yamanaka S](#), [Hiramatsu R](#), [Matsuzawa Y](#), [Shimomura I](#).

⊕ Author information

Retraction in
Retraction. [Science. 2007]

Abstract

Fat tissue produces a variety of secreted proteins (adipocytokines) with important roles in metabolism. We isolated a newly identified adipocytokine, visfatin, that is highly enriched in the visceral fat of both humans and mice and whose expression level in plasma increases during the development of obesity. Visfatin corresponds to a protein identified previously as pre-B cell colony-enhancing factor (PBEF), a 52-kilodalton cytokine expressed in lymphocytes. Visfatin exerted insulin-mimetic effects in cultured cells and lowered plasma glucose levels in mice. Mice heterozygous for a targeted mutation in the visfatin gene had modestly higher levels of plasma glucose relative to wild-type littermates. Surprisingly, visfatin binds to and activates the insulin receptor. Further study of visfatin's physiological role may lead to new insights into glucose homeostasis and/or new therapies for metabolic disorders such as diabetes.



Making it Easy to Find Retractions: The Role of the Journals



RETRACTION GUIDELINES

Notices of retraction should:

- **be linked to the retracted article wherever possible (i.e. in all electronic versions)**
- **clearly identify the retracted article (e.g. by including the title and authors in the retraction heading)**
- **be clearly identified as a retraction (i.e. distinct from other types of correction or comment)**



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Making it Easy to Find Retractions: Case 1

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REPORT

Visfatin: A Protein Secreted by Visceral Fat That Mimics the Effects of Insulin

Atsunori Fukuhara^{1,2,*}, Morihiro Matsuda^{1,*}, Masako Nishizawa^{3,*}, Katsumori Segawa¹, Masaki Tanaka¹, Kae Kishimoto³, Yasushi Matsuki³, Mirei Murakami⁴, Tomoko Ichisaka⁴, Hiroko Murakami³, Eijiro Watanabe³, Toshiyuki Takagi¹, Megumi Akiyoshi³, Tsuguteru Ohtsubo³, Shinji Kihara⁵, Shizuya Yamashita⁵, Makoto Makishima¹, Tohru Funahashi⁵, Shinya Yamanaka⁴, Ryuji Hiramatsu³, Yuji Matsuzawa⁶, Iichiro Shimomura^{1,5,7,†}

+ Author Affiliations

† To whom correspondence should be addressed. E-mail: ichi@imed2.med.osaka-u.ac.jp

* These authors contributed equally to this work.

Science 21 Jan 2005:
Vol. 307, Issue 5708, pp. 426-430
DOI: 10.1126/science.1097243

Article

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Abstract

Fat tissue produces a variety of secreted proteins (adipocytokines) with important roles in metabolism. We isolated a newly identified adipocytokine, visfatin, that is highly enriched in the visceral fat of both humans and mice and whose expression level in plasma increases during the development of obesity. Visfatin corresponds to a protein identified previously as pre-B cell colony-enhancing factor (PBEF), a 52-kilodalton cytokine expressed in lymphocytes. Visfatin exerted insulin-mimetic effects in cultured cells and lowered plasma glucose levels in mice. Mice heterozygous for a targeted mutation in the visfatin gene had modestly higher levels of plasma glucose relative to wild-type



Science

Vol 307, Issue 5708
21 January 2005

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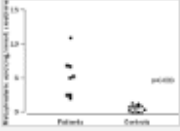
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- Summary
- Introduction
- Patients and methods
- Results
- Discussion
- Acknowledgements
- References

Figures and tables

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-  [Table 2](#)





THE LANCET

Volume 351, Issue 9103, 28 February 1998, Pages 637–641

Early Report

RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children

Dr AJ Wakefield, FRCS^a, , SH Murch, MB^b, A Anthony, MB^a, J Linnell, PhD^a, DM Casson, MRCP^b, M Malik, MRCP^b, M Berelowitz, FRCPsych^c, AP Dhillon, MRCPath^a, MA Thomson, FRCP^b, P Harvey, FRCP^d, A Valentine, FRCP^e, SE Davies, MRCPath^a, JA Walker-Smith, FRCP^a

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Refers To The Editors of The Lancet
Retraction—Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children



Making it Easy to Find Retractions: Case 2

Google Scholar search results for "Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children".

Scholar About 765 results (0.07 sec)

Articles **RETRACTED: Ileal-lymphoid-nodular hyperplasia, non-specific colitis, and pervasive developmental disorder in children**

Case law A J Wakefield, S H Murch, A Anthony, J Linnell... - *The Lancet*, 1998 - Elsevier

My library BACKGROUND: We investigated a consecutive series of children with chronic enterocolitis and regressive developmental disorder. METHODS: 12 children (mean age 6 years [range 3–10], 11 boys) were referred to a paediatric gastroenterology unit with a history of normal ...

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What about archived retracted articles?

- Davis (2012) searched for copies of retracted articles on non-publisher websites
 - 75% were in Mendeley shared reference libraries
 - 29% were found in personal, lab or departmental websites
 - 7% were found on commercial websites
 - 95% did not include any notice of retraction
- Davis also reported that Institutional Repositories often have no mechanism for handling retractions



Other Challenges for Universities

- Instructions to authors of retracted articles?
 - Implicit expectation that they shouldn't cite, but are there explicit policies?
 - Does the reason for retraction make a difference? If so, how do you determine?
- Are there explicit policies or procedures for incorporating retracted articles into personnel decisions?



In Sum:

How Do Universities think about Retractions?



In Sum:

How Do Universities think about Retractions?



- I think many of those at the Council of Science Editors meeting were surprised.
- Benign neglect and desire to move on, rather than negligence
 - Culture of trust
 - Lack of time, resources
- Presents opportunity to improve internal processes, as well as coordination with other stakeholders



What do WE think:

Why should (or shouldn't) a paper be retracted?



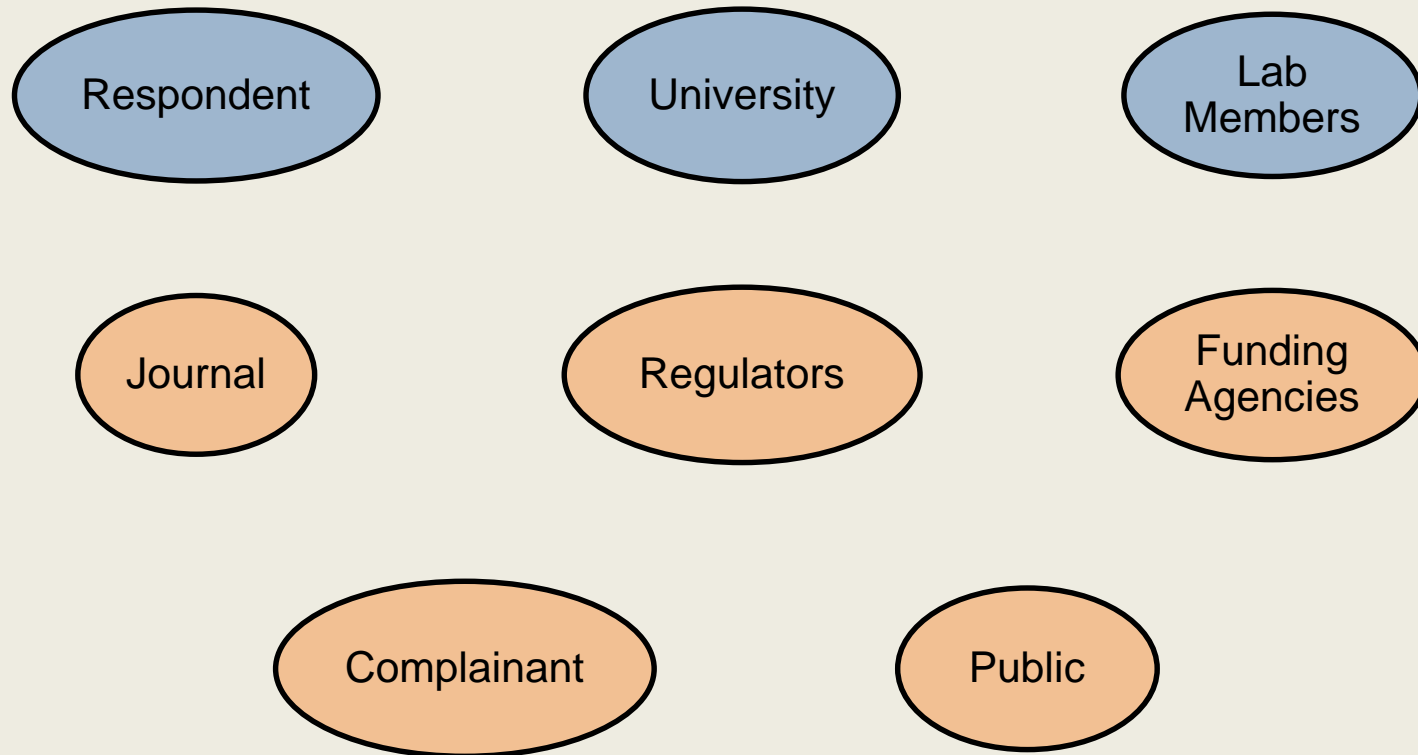
What do WE think:

Why should (or shouldn't) a paper be retracted?

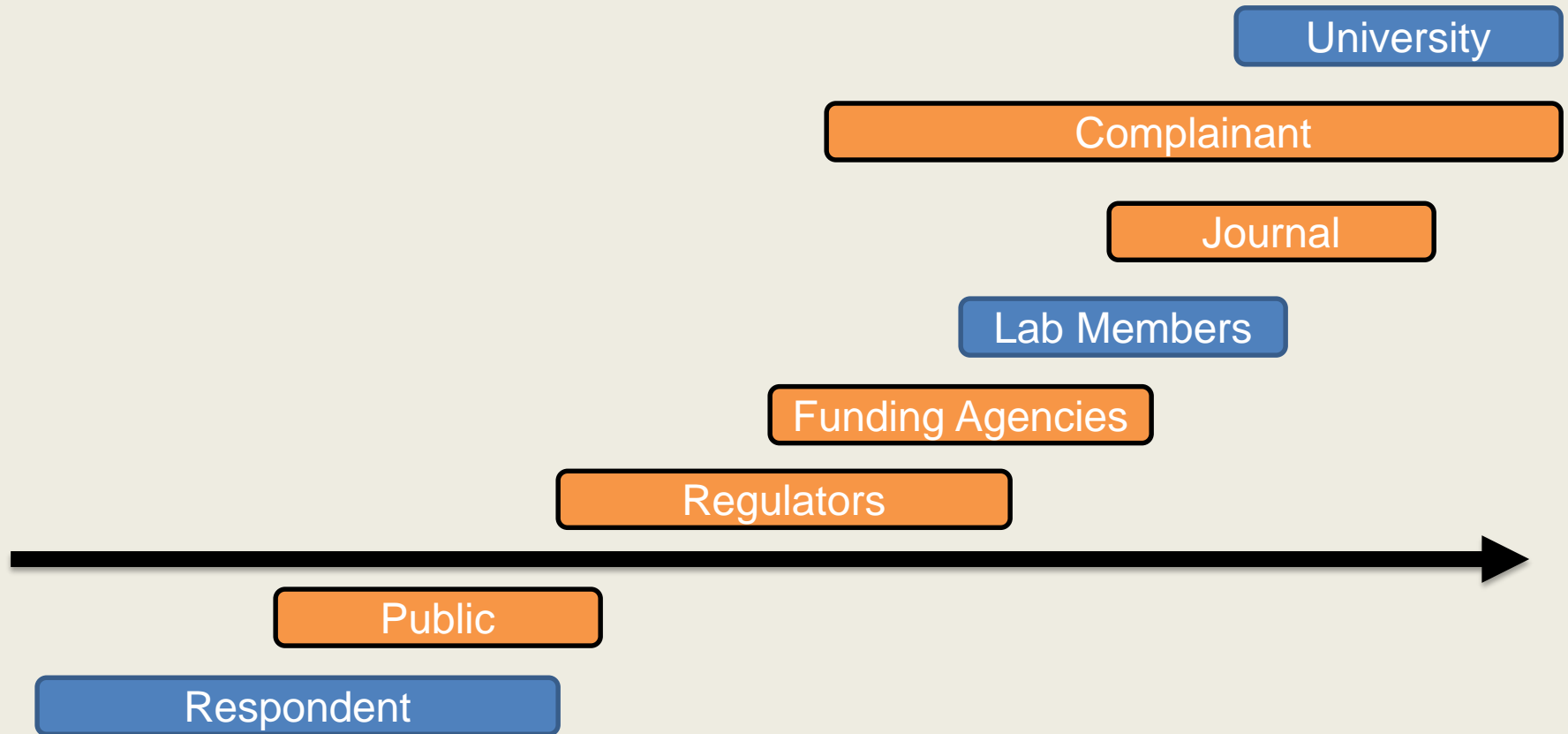
- **Protecting Integrity of Science**
- **Stewardship of Taxpayer \$**
- **Setting an example**
- **(Reputational harm)**



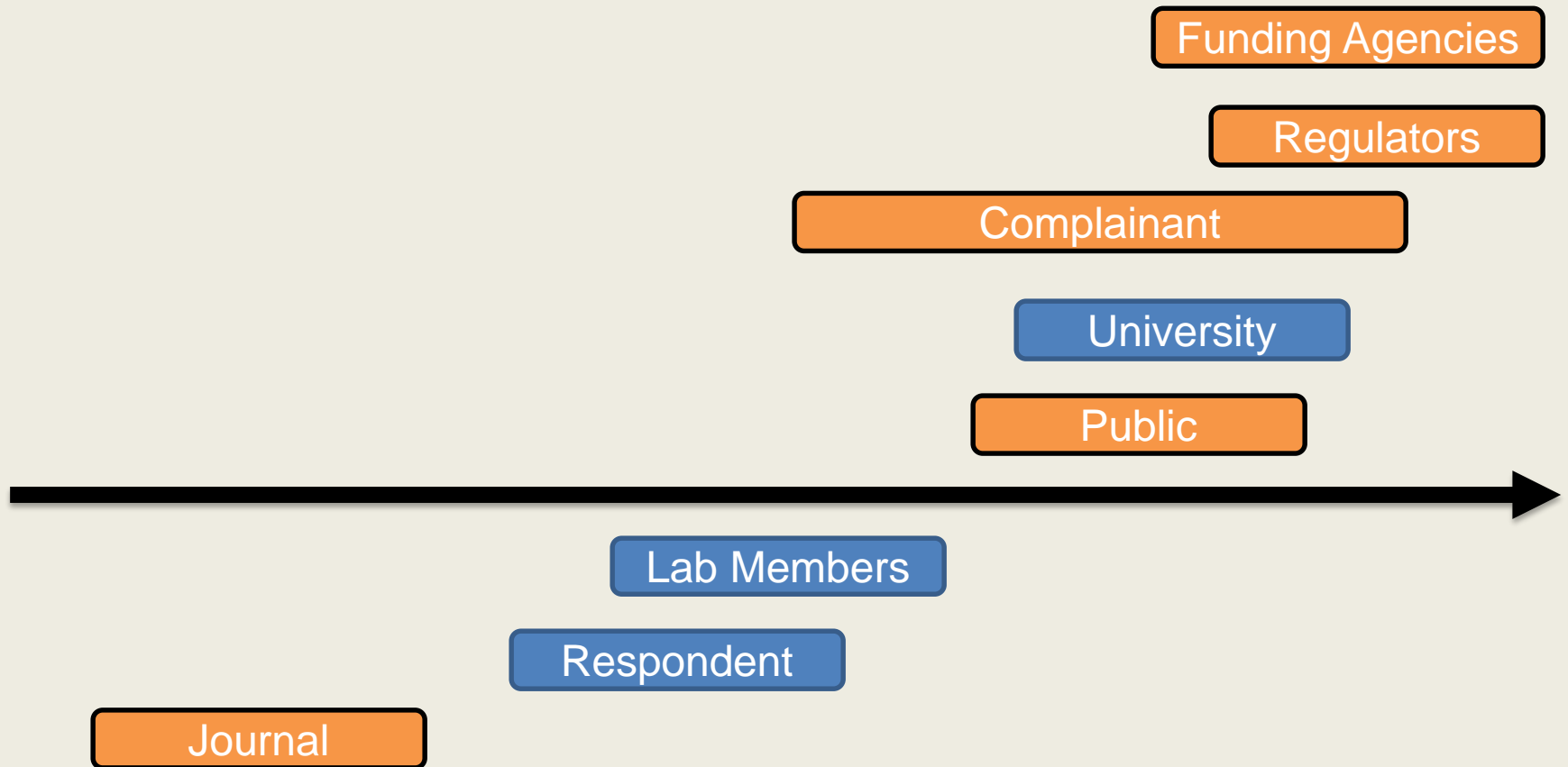
A Stakeholder Perspective



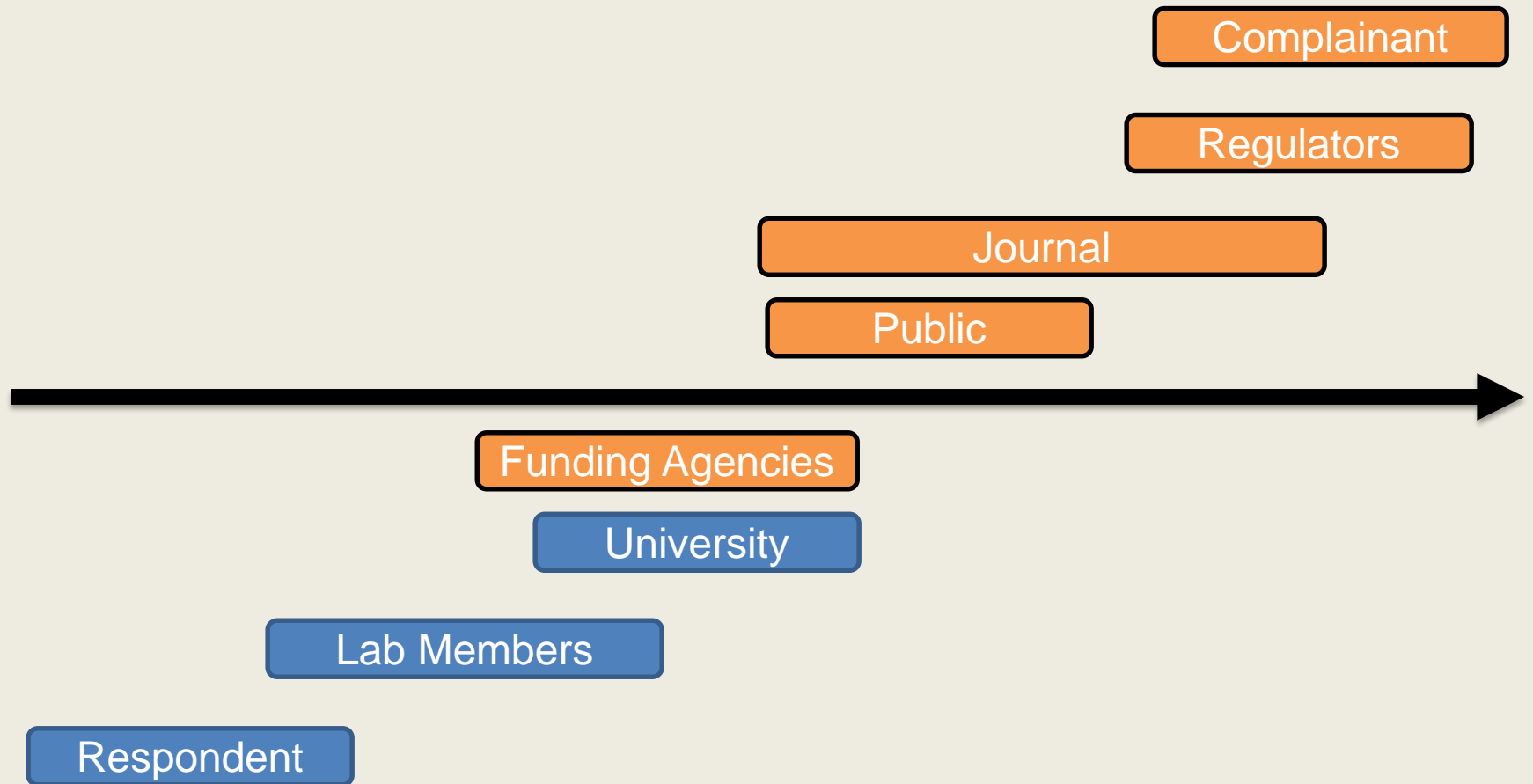
Why Retract: Integrity of Science



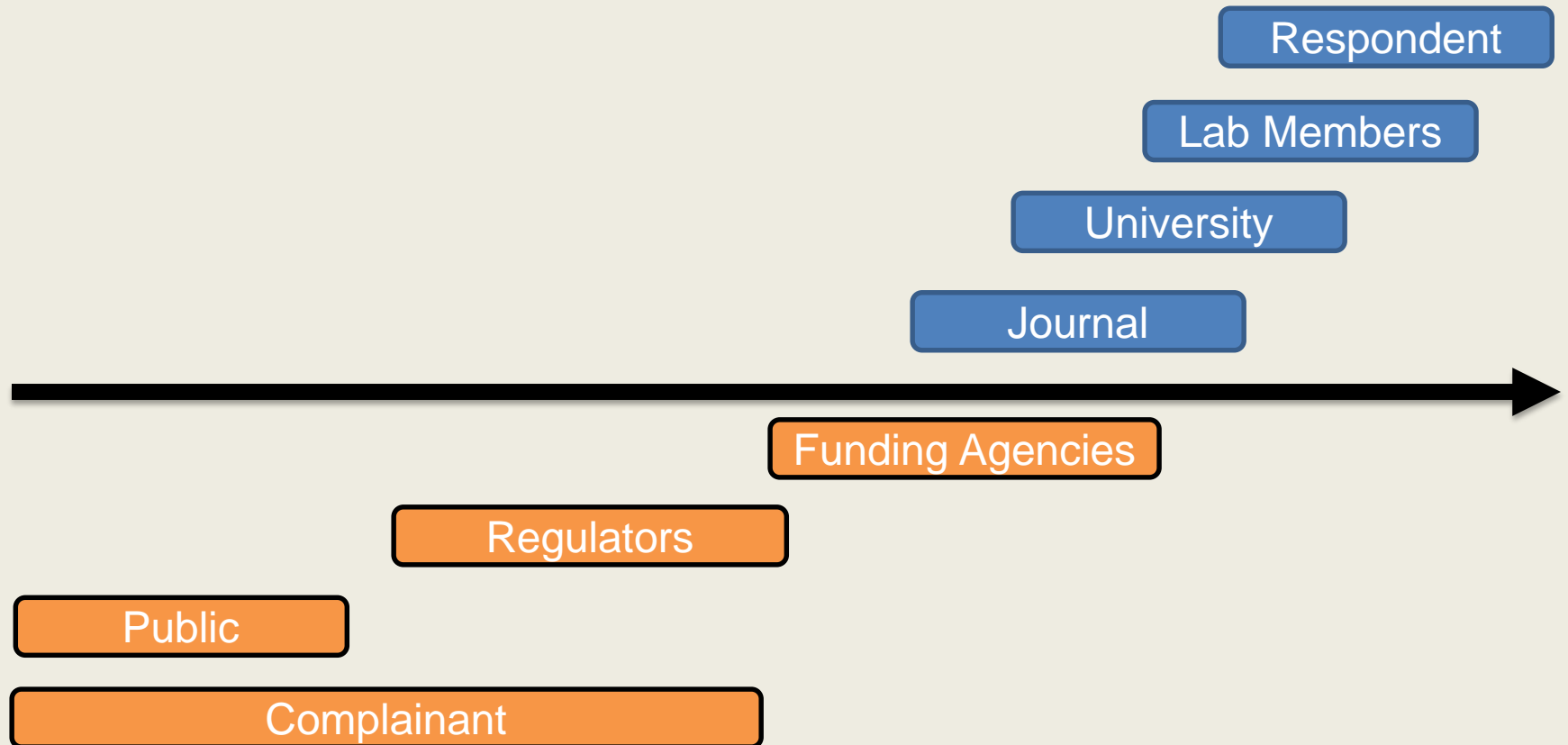
Why Retract: Stewardship of (Taxpayer) Money



Why Retract: Signaling (Make an Example)



Why (Not) Retract: Reputational Harm





Are Interests Beginning to Align?

A Case Study



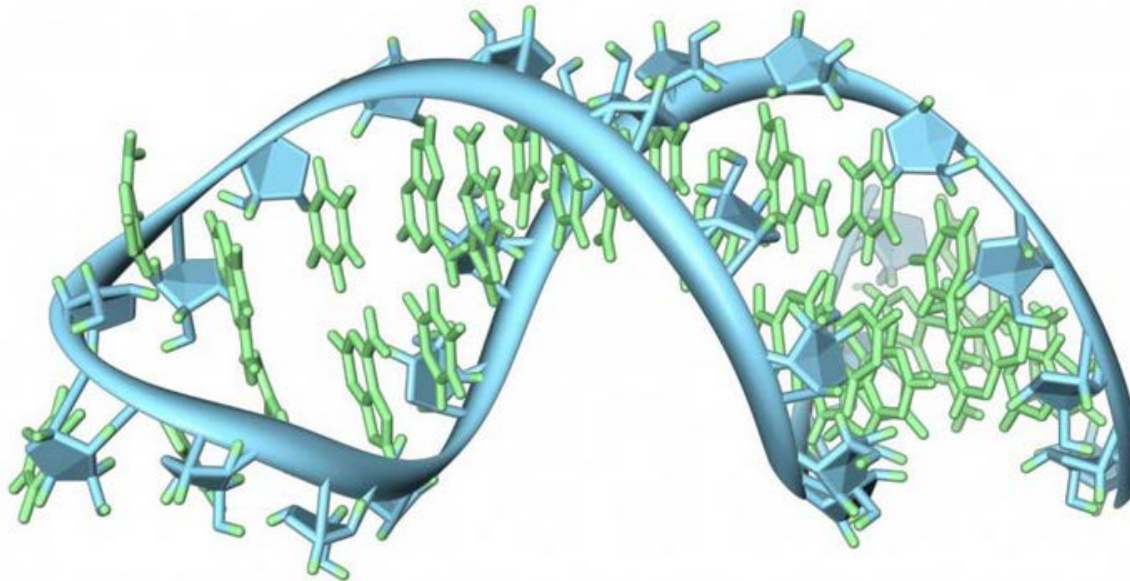
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Authors of the retracted paper conducted experiments that used sequences of RNA (above) to mediate the growth of palladium nanoparticles.

Vossman/Wikimedia Commons

NSF breaks new ground in reprimanding authors of flawed Science paper

By **Jeffrey Mervis** | Feb. 4, 2016, 2:00 PM

“The case highlights the sometimes fraught relationship between journals, researchers and funding agencies.”

And universities...

The Tortured Trail of this *Science* Paper

- Home institution found data had been falsified, but did not find it to be reckless, knowing or intentional
- NSF OIG disagreed, finding it was misconduct
- NSF disagreed, but reprimanded authors for not fully reporting “all significant findings.” Ruled authors ineligible for NSF funding unless they “clarified the scientific publication record.”
 - *Science* issued an Expression of Concern
 - Authors were willing to provide correction, but unclear if correction would satisfy NSF requirements
 - Communications were constrained by confidentiality requirements
 - Journal and universities both felt caught in middle



The Tortured Trail of this *Science* Paper

Science editor Marcia McNutt:

- “Corrections are for honest errors. We don’t want to do corrections for truly sloppy science.... I would prefer to send the message, ‘Don’t send those papers to this journal.’”
- “It sounded to me, when talking to [NSF Director] France, that this might be a change in NSF’s attitude. I think they want to work more closely with the community to find ways to raise standards.... I think they are looking for greater involvement in the process of maintaining high standards for scientific integrity.”





Are Interests Beginning to Align?

COPE Guidelines



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Correction, Expression of Concern, Retraction?

- Allison et al. (2016 *Nature*) found that journals were often reluctant to acknowledge, much less respond to, errors they'd identified
- “There’s a vacuum of clarity on when an error warrants an erratum versus a retraction, much less an investigation into possible wrongdoing”



- Correction
 - Small portion of otherwise reliable publication is misleading, especially because of honest error
- Expression of Concern
 - Investigation is underway but decision is not imminent
 - Evidence of misconduct is inconclusive or of dubious fairness
 - Author's institution will not investigate the case
- Retraction
 - Clear evidence of unreliable findings
 - Plagiarism or redundant publication
 - Reports unethical research



A Modest Proposal, A Bold Start

