

Who Faces Criminal Sanctions For Scientific Misconduct?

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Fabricated criminal

Updated by Julie Bellin

No more science 's

In one of the la scientist comm published. The

Richard Smith: Should scientific fraud be a crime?

December 9, 2013



At Britain's first and only summit meeting on research misconduct in 2000, Alexa of medical law and ethics, argued that research misconduct (the gentlemanly ph be a criminal offence. The idea seemed outrageous. Nobody took it seriously, but published an editorial not promoting but contemplating the idea. To me it begins research misconduct will eventually become a criminal offence.

Richard Smith: If Volkswagen staff can be criminally charged so should fraudulent scientists

September 28, 2015

A man who steals a milk bottle may frauds funders, and publishes fabricated criminal charges. The news that Volkswagen emission tests raises again the question

Retraction Watch

Tracking retractions as a window into the scientific process

Should scientific misconduct be handled by the police? It's fraud week at Nature and Nature Medicine

with 33 comments

It's really hard to get papers retracted, police might be best-equipped to handle scientific misconduct investigations, and there's finally software that will identify likely image manipulation.

Those are three highlights from a number of pieces that have appeared in Nature and Nature Medicine in the past few weeks. Not surprisingly, there are common threads, so join us as we follow the bouncing ball.



This article originally appeared in New Scientist

ER LETTER

research and drug development



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Tons Of Federal Money Almost

A scientist was just sentenced to 57 months in jail for using \$11.6 million in federal dollars to fake data on AIDS vaccines. That's super rare -- Han is one of the only scientists to go to prison for fraud, out of nearly 300 researchers found guilty of misconduct.

posted on Jul 2, 2015, at 12:38 pm

Azeen Ghorayshi BuzzFeed News Reporter

Cat Ferguson BuzzFeed Contributor

Should scientific fraud be prosecuted as a crime?

Yes **82.56%** (620 votes)



No **17.44%** (131 votes)



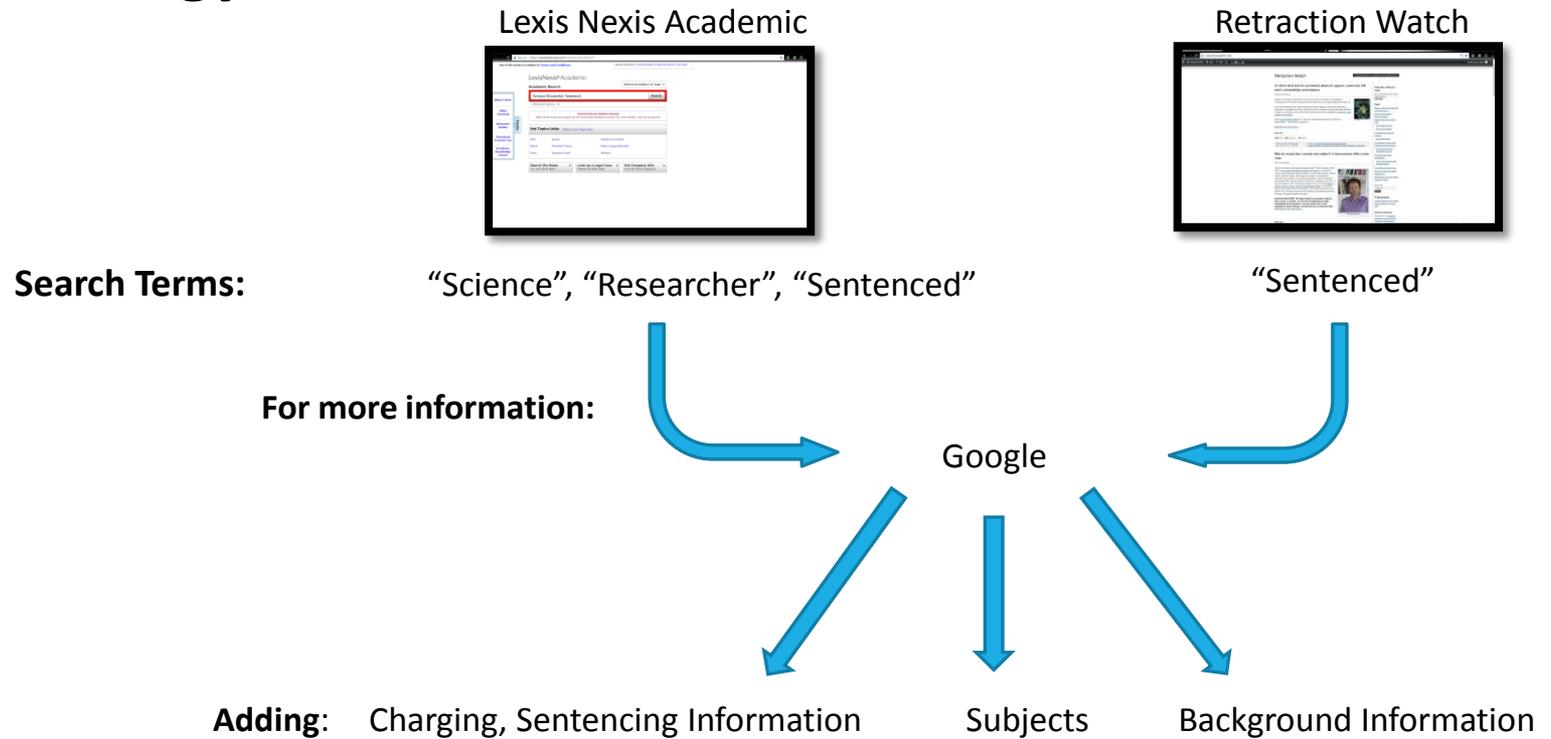
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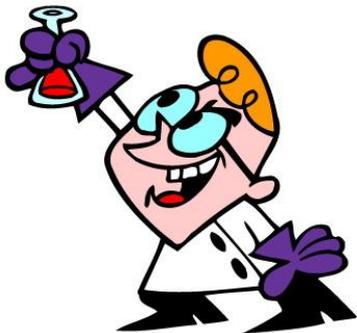
Methodology



Filtered out: Non-science researcher related, charges that were dismissed, charges of espionage

Three categories

Direct



Indirect

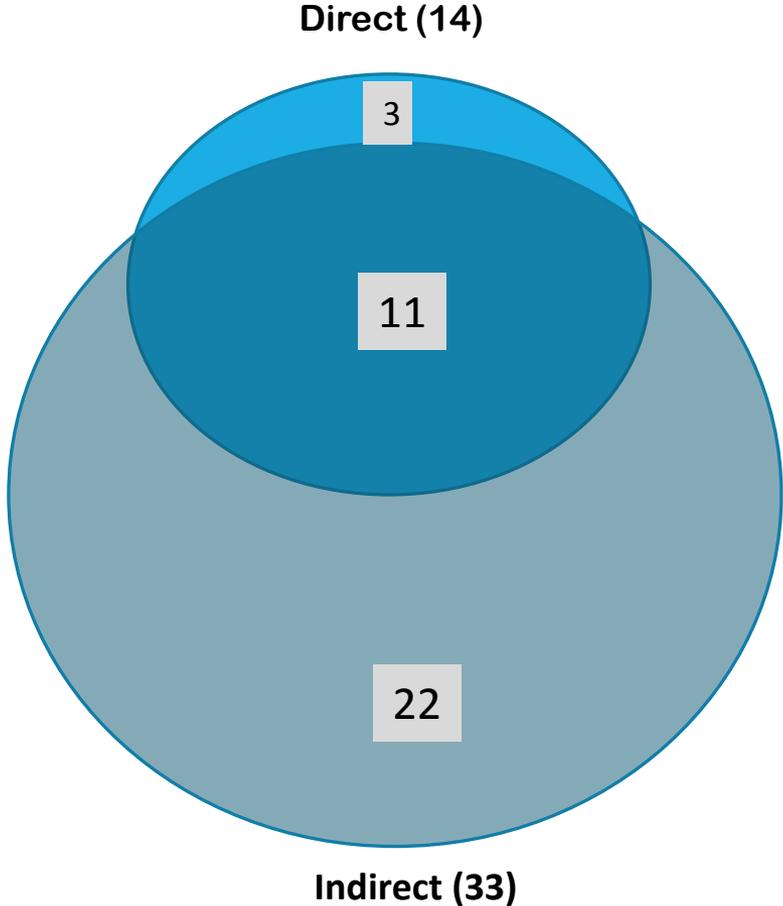


Perimeter



Between 1979-2015:
39 Researchers criminally charged
4 awaiting final dispositions

Only 5 U.S. researchers had
concurrent ORI misconduct findings
(<2% of over 250 misconduct findings)



Geography:

US (27), China (7), Australia (2), one each Denmark, Russia, South Korea, UK

Range:

Fines and suspended sentences to 15 years in prison, with an outlier case involving a life sentence for 1st degree murder.

Indirect

2 investigations involved multiple persons being charged:



Seven researchers in China charged with embezzlement



Four United States researchers convicted of bribery

Direct and Indirect

Science

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Woo-Suk Hwang

- Seoul, S Korea
- 1.5 years suspended sentence

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Woo Suk Hwang

Dennis Normile

Korean Supreme Court Upholds Disgraced Cloner's Criminal Sentence

By Mi-Young Ahn, Dennis Normile | Feb. 27, 2014, 12:45 PM

Discredited stem cell scientist Woo Suk Hwang suffered a setback in his bid to reclaim respectability today when South Korea's Supreme Court confirmed his conviction on embezzlement and bioethics violations. The court also sent Hwang's plea to overturn his dismissal from Seoul National University (SNU) back to a lower court for review and upheld previous rulings acquitting him of fraud charges.

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Tracking retractions as a window into the scientific process

Fraud, retractions no barrier to US cloning patent for Woo-Suk Hwang

with 17 comments

Woo-Suk Hwang is having quite a comeback.

The cloning researcher's [fall from grace](#) in 2005 and 2006 was covered worldwide, featuring two high-profile retractions from *Science* and convictions (now under appeal) on charges he embezzled government funds and broke South Korea's bioethics law. But as [Nature reported last month](#) in a profile focusing on Hwang's Biotech Research Foundation:

“Despite his legal troubles — and the widespread belief that his career was over — Hwang continued to work, thanks to the supporters who amassed US\$3.5 million to launch Sooam. About 15 scientists followed Hwang from SNU, and around half of those remain today among Sooam's 45 staff. His team now creates some 300 cow and pig embryos per day, and delivers about 15 cloned puppies per month.

And now, the U.S. Patent and Trademark Office has awarded Hwang a patent based on a cell line described in his retracted *Science* papers, as the [Korea Times reports](#). The *New York Times* [picked up the story Friday](#):

“Despite all that, Dr. Hwang has just been awarded an American patent covering the disputed work, leaving some scientists dumbfounded and providing fodder to critics who say the Patent Office is too lax.

“Shocked, that's all I can say,” said Shoukhrat Mitalipov, a professor at Oregon Health and Science University who appears to have actually accomplished what Dr. Hwang claims to have done. “I thought somebody was kidding, but I guess they were not.”

(An aside: Mitalipov's work, [published last year in *Cell*](#), was subjected to [extensive corrections](#).)

The [patent](#) cites both of Hwang's retracted *Science* papers, without noting they're retracted. Apparently that wasn't a problem, notes the Times:

“But a spokesman for the United States Patent and Trademark Office, and some outside patent lawyers, said the system operates on an honor code and that patent examiners cannot independently



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The screenshot shows a BBC News article from April 17, 2013. The headline is "Scientist Steven Eaton jailed for falsifying drug test results". The sub-headline reads: "A scientist who faked research data for experimental anti-cancer drugs has been jailed for three months for falsifying test results." The article text states: "Steven Eaton, from Cambridgeshire, has become the first person in the UK to be jailed under scientific safety laws. Eaton, 47, was working at the Edinburgh branch of US pharmaceutical firm Aptuit in 2009 when he came up with the scam." An image shows a person in purple gloves holding a test tube over a tray of other test tubes. A caption below the image says: "Eaton had been selectively reporting research data since 2003".

Retraction Watch

Tracking retractions as a w

UK researcher who faked data gets three months in jail

without comments

Steven Eaton, a UK scientist who cooked experiments while at the U.S.-based contract research outfit Aptuit, has been given a three-month prison term, making him the first person to serve time under a 1999 British law called the Good Laboratory Practice Regulations, according to the [BBC](#).



As the BBC reported:

“Eaton, 47, was working at the Edinburgh branch of US pharmaceutical firm Aptuit in 2009 when he came up with the scam. If it had been successful, cancer patients who took the drug could have been harmed, the court was told. Edinburgh Sheriff Court heard how Eaton had manipulated the results of an experiment so it was deemed successful when it had actually failed.

He had been manipulating his results since 2003, it seems, including tests for compounds from Roche and AstraZeneca. These included a variety of drugs, from anti-cancer agents to anti-depressants, according to the *Financial Times*, via [Fierce Biotech](#).

We haven't found any publications on which Eaton was an author, but that doesn't mean they don't exist.

Here's the notice from [Aptuit](#) about Eaton:

“In light of the inquiries we have received following the MHRA's recent press release relating to its investigation of the bioanalytical group at our former Riccarton, Scotland site, Aptuit wants to clarify information related to the MHRA's prosecution of a former employee, Steven Eaton. Mr. Eaton was recently found guilty by Edinburgh Sherriff's Court for altering pre-clinical trial data at our Riccarton site. Here are the details:

In February of 2009, a supervisor at Aptuit Riccarton identified irregularities in some of Mr. Eaton's bioanalytical data as part of the company's Quality Control Procedures. Aptuit representatives promptly notified the MHRA and, based on that notification, an investigation was initiated. It was determined that the irregularities in the work of Mr. Eaton began as early as 2001.

Eaton, Steven

- Edinburgh, UK
- 3 months
- "first person to serve time under the UK's Good Laboratory Practice Regulations, 1999"

Direct and Indirect

Dong-Pyou Han

- Iowa, United States
- 57 months prison: 3 yrs probation:
\$7,216.890.12 restitution, \$200 court fees

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Former ISU scientist's stiff fraud sentence sends message

Adam Marcus and Iran Oransky | Published 4:35 p.m. CT July 1, 2015 | Updated 5:05 p.m. CT July 1, 2015

 (Photo: Associated Press)

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How long should a scientist who cheats spend in prison? If you're Dong-Pyou Han, the answer is nearly five years, according to a federal judge who sentenced the researcher Wednesday to 57 months in prison for misusing taxpayer funds.

Han has admitted to cooking data using government grant money to make the AIDS vaccine he was working on look more effective. In addition to incarceration, Han was ordered to pay back more than \$7 million to the National Institutes of Health — a sum that's surely symbolic for a former assistant professor of biomedical sciences at Iowa State University. The judge ignored pleas for leniency from Han's lawyer, who'd asked for probation.

As U.S. District Judge James Gritzner told the courtroom, as reported in The Des Moines Register, "the court cannot get beyond the breach of the sacred trust in this kind of research. ... The seriousness of this offense is just stunning."

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NATURE | NEWS

US vaccine researcher sentenced to prison for fraud

The case of Dong-Pyou Han illustrates the uneven nature of penalties for scientific misconduct.

Sara Reardon

01 July 2015 | Updated: 01 July 2015

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Indirect

Patrick Harran

- California, United States
- 5 years, adjudication withheld

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The Brain Experiment Science Fair
Apr 21, 2017



Professor Patrick Harran is one of two UCLA faculty members selected as 2015 fellows by the American Association for the Advancement of Science (AAAS).

The Donald J. and Jane M. Cram Professor of Organic Chemistry, Professor Harran builds new chemical compounds in creative ways and uses those molecules to drive research in biology and medicine.

Spring 2017 Distinguished Lecture
Apr 21, 2017

Professor Douglas Black, UCLA Department of Microbiology, Immunology and Molecular Genetics also received the honor.

Professor Juli Feigon to receive the 2017 Dorothy Crowfoot Hodgkin Award
Apr 18, 2017

AAAS is the world's largest scientific society and the publisher of the journal *Science*. Since 1874, the AAAS has chosen members for their distinguished efforts to advance science or its applications. A total of 347 scholars were selected this year; they will be honored Feb. 13, 2016, at the **AAAS annual meeting** in Washington, D.C.

The AAAS, founded in 1848, is a nonprofit whose mission is to "advance science and serve society" through initiatives in science policy, international programs and science education.

To learn more about Professor Harran's research visit his [research group's website](#).

UCLA Newroom (by Stuart Wolpert)

Dr. Laurence Lavelle co-authors two chemistry books and students enjoy his Chemistry Community

Apr 17, 2017

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Scientific society withholds honour over lab death

The American Association for the Advancement of Science has reversed its decision to make chemist Patrick Harran a fellow.

Erika Check Hayden

23 December 2015

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Chemist Patrick Harran faced criminal charges after an accidental death in his lab.

Brian van der Brugg/Los Angeles Times via Getty Image

A US scientific society has decided not to award an honorary fellowship to chemist Patrick Harran, who was prosecuted for the 2009 accidental death of a 23-year-old researcher in his lab.

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Patrick Harran And L.A. District Attorney Reach Deferred Prosecution Deal In Sheri Sangji Case

Lab Safety: Five-year agreement mandates that Harran complete community service and pay fine

By Michael Torrice

A Los Angeles County judge approved today an agreement between the district attorney's office and University of California, Los Angeles, chemistry professor Patrick G. Harran to defer prosecution of Harran on four felony charges of violating the state labor code.

The charges in the case stem from a 2008 fire in Harran's lab that led to the death of research assistant Sheharbano (Sheri) Sangji.

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11 (213) 974-3800

Attorneys for Plaintiff

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

11 PEOPLE OF THE STATE OF CALIFORNIA,	Case No. BA392069
12 Plaintiff,	DEFERRED PROSECUTION
13 v.	AGREEMENT
14 PATRICK HARRAN (7-13-69),	
15 Defendant.	

16 THE PEOPLE OF THE STATE OF CALIFORNIA and Defendant Professor Patrick
17 Harran ("Defendant Harran"), through his counsel Thomas P. O'Brien, hereby agree to continue
18 this prosecution against Defendant Harran according to the terms of this Deferred Prosecution
19 Agreement. Five (5) years subsequent to the execution of the Deferred Prosecution Agreement,
20 after full compliance with the terms and conditions set forth herein, the People will move to
21 dismiss with prejudice all filed charges in the criminal action, case number BA392069, against
22 Defendant Harran in the furtherance of justice pursuant to Penal Code section 1385.

Perimeter

Erin Potts-Kant

- North Carolina, United States
- Probation, Community Service

Retraction Watch

Tracking retractions as a window into the scientific process

Former Duke researcher at center of lawsuit lodges 16th retraction

without comments

Two former researchers at Duke University at the center of a lawsuit by a whistleblower to recoup millions in federal funding have lost yet another paper.

This is hardly the first retraction for [Erin Potts-Kant](#), who used to work in the pulmonary lab of now-retired William Michael Foster. Earlier this year, [a lawsuit filed by a former colleague of Potts-Kant and Foster](#) was unsealed alleging that the pair — along with the university — included fraudulent data in materials involving more than 60 grants, worth hundreds of millions of dollars.

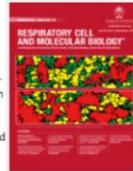
That is the legal side of their story. The science publishing side is that Potts-Kant and Foster have been steadily adding to their list of retractions — this paper represents her 16th, and his 13th.

Here's the notice for "[Nitric oxide mediates relative airway hyporesponsiveness to lipopolysaccharide in surfactant protein A-deficient mice](#)."

Following an inquiry at Duke University, the authors were informed that the flexiVent data reported in Table 1, Figure 1, and Figure 7 provided by the animal pulmonary physiology laboratory at Duke University may have been unreliable. An independent laboratory at Duke University led by Herman Staats was therefore asked to repeat the pulmonary physiology experiments. The laboratory was able to substantiate the results shown in Table 1 and Figure 1. However, the laboratory could not confirm the major finding of the publication that treatment with the inducible nitric oxide synthase-specific inhibitor 1400W abrogated relative airway hyporesponsiveness in LPS-treated SP-A^{-/-} mice, nor could it confirm that treatment with 1400W further enhanced airway responsiveness in LPS-treated wild-type mice, as reported in Figure 7. Thus the data obtained from the repeated experiments do not support the main published conclusion that the relative airway hyporesponsiveness of the LPS-treated SP-A^{-/-} mice may be at least partly attributed to an inducible nitric oxide synthase-dependent mechanism.

In addition, the animal physiology laboratory at Duke University maintained a portion of the SP-A^{-/-} mice and also provided an LPS stock solution that was used in Figure 6. However, the experiments in Figures 2 through 6 were generated and analyzed by laboratories other than the Duke animal pulmonary physiology laboratory; these data were not part of the unreliable flexiVent dataset.

We apologize to our colleagues and the scientific community for any inconvenience this might have



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Retraction Watch

Tracking retractions as a window into the scientific process

Former Duke researcher charged with embezzlement has a paper retracted

with 10 comments

A new retraction notice in the *Journal of Applied Physiology* gives only a hint at the problems in the paper, but what it does say has led us to a story about one of its co-authors.

Here's the notice, from a team at Duke:

“**Auten RL, Mason SM, Potts-Kant EN, Chisano P, Foster WM.** Early life smoke exposure induces adult murine airway hyperresponsiveness through Effects on airway permeability. *J Appl Physiol*. doi:10.1152/jap.01368.2012 —After publication of the Article in *Phys*5 version of this article, the authors became aware that the primary data used to calculate the *in vivo* pulmonary mechanics results were inconsistent with the machine-generated raw data, making the data presented in Figure 2 unreliable. We offer our formal apologies for this error and for any inconvenience associated with the publication of the article. The paper is therefore being retracted by the American Physiological Society at the request of Dr. Auten and with the approval of the co-authors.

Please note that an effort was made to contact all authors. However, a response was not received from E.N. Potts-Kant.

Potts-Kant is Erin Nicole Potts-Kant, who is apparently no longer working at Duke. She may have bigger concerns than a retraction, however: In late March, about a week before the retraction notice appeared online, she was arrested on embezzlement charges. As *The Herald-Sun* reported:

“The charges stem from the alleged misuse of Duke University procurement cards that were in her name while she was an employee of the Duke University Health System.

She allegedly used the cards for \$14,016.34 in merchandise from Amazon.com, Target, Walmart, and TigerDirect between Dec. 12, 2008, and Nov. 6, 2012.

Potts-Kant was released on \$10,000 bail. She also holds a U.S. patent along with some of her former Duke colleagues, for a [way to treat lung disease](#).

We've contacted the corresponding author of the paper for more details about how these errors came to the



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Duke University is at the center of a whistleblower lawsuit concerning potential research misconduct.

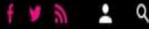
Photo credit: iStockphoto.com/Imagor

Whistleblower sues Duke, claims doctored data helped win \$200 million in grants

By Alison McCook, Retraction Watch | Sep. 1, 2016 · 2:00 PM

On a Friday in March 2013, a researcher working in the lab of a prominent pulmonary scientist at Duke University in Durham, North Carolina, was arrested on charges of embezzlement. The researcher, biologist Erin Potts-Kant, later pled guilty to siphoning more than \$25,000 from the Duke University Health System, buying merchandise from Amazon, Walmart, and Target—even taking receipts to legitimize her purchases. A state judge ultimately levied a fine, and sentenced her to probation and community service.

Some people have concerns about criminal sanctions and science

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Manslaughter conviction overturned for Italian geologists, but other scientists are still fearful

35 

Scientists failed to predict an earthquake in 2009, and the case will continue to affect scientists for years to come

by [Annie Duhaime-Ross](#) | Nov 11, 2014, 3:26pm EST



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Why Italian earthquake scientists were exonerated

By [Edwin Cartlidge](#) | Feb. 10, 2015, 3:15 PM

Six scientists convicted of manslaughter in 2012 for advice they gave ahead of the deadly L'Aquila earthquake were victims of "uncertain and fallacious" reasoning. So say the three judges who **acquitted the experts** and reduced the sentence of a seventh defendant last November. In a 389-page document deposited in court on Friday and since released to the public, the trio of magistrates attack the convictions on multiple grounds and state that no blame can be laid on the scientists for the risk analysis they carried out (find links to document in first sentence [here](#)). Other scientists, however, accuse the judges of failing to understand modern seismology.

Conclusions

1. Financial issues seemed to be the greatest driving force for criminal convictions
2. Need to assure consistency in processes. When applied, criminal sanctions should be used within clear guidelines and not just based on umbrage.
3. Need to thoroughly examine cost/benefit of pursuing more criminal prosecution of direct research misconduct
4. Need to provide education and guidance to those involved in a criminal justice procedure

“A research misconduct proceeding is more complicated than the regulations make it appear because there are a limited number of individuals who have the scientific background and experience to examine the allegations and the research. The individuals who have that background and experience may also have conflicts of interest that preclude them from participating in the proceeding. The federal regulations require the institution to ensure that the individuals responsible for carrying out any part of the research misconduct proceeding do not have unresolved personal, professional or financial conflicts of interest with the complainant, researcher or witnesses involved in the proceeding. “ <http://www.thehealthlawfirm.com/resources/health-law-articles-and-documents/healthcare-fraud.html>

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