Research Misconduct and the Law: Intervening to Name, Shame and Deter

Ian Freckelton QC
Crockett Chambers, Melbourne, Australia;
Professorial Fellow in Law and Psychiatry, University of Melbourne, Australia
Editor, Journal of Law and Medicine
I.Freckelton@vicbar.com.au

See I Freckelton, Scholarly Misconduct and the Law (OUP, 2016)
Criminal Law

- Invoked by the state to punish, deter and protect

Compensation Actions

Providing encouragement to victims to come forward and to ventilate concerns about research integrity, and recognising that by doing so they are likely to suffer losses. Also deters.
Research Misconduct

Office of Research Integrity: “Research misconduct means fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results”
The Lens of the Law on Research Misconduct

- Prosecutions for fraud: a form of white collar crime
- Appeals & judicial review
- Injunctions
- Workplace dismissal litigation
- Defamation actions
- Disciplinary/registration/licensure proceedings
- Harassment & discrimination actions
- Compensation actions (tort & qui tam)
Contextualising Research Fraud by Reference to Criminal Law

- Undertaken by economically and otherwise privileged
- Premeditatedly done using knowledge and opportunity
- Has foreseeably adverse consequences for others – direct & indirect victims
- Undertaken for gain – career, economic, kudos etc
- Fundamentally dishonest: manipulates/exploits funding – directly/indirectly
When experts lie, they endanger not only their own profession, but also the wellbeing of their client: society. Their threat to expertise comes in both the immediate outcome of their chicanery and the erosion of social trust such misconduct creates when it is discovered.
Julian McCrane, 2014

Criminalizing research misconduct is a sad, bad, even mad idea that will only undermine the trust that is an essential component of research and requires good governance not criminal investigations.
Learning from Those Who Have Been Prosecuted

- Stephen Breuning (US)
- Woo Suk-Hwang (Korea)
- Erik Poehlman (US)
- Luk Van Parijs (US)
- Scott Reuben (US)
- Steven Eaton (Scot)
- Dong Pyou Han (US)
- Milena Penkowa (Den)
- Christopher Gillberg (Sweden)
- Bruce Murdoch & Caroline Barwood (Aus)
Stephen Breuning (US, 1988)

- Prominent researcher on Ritalin & Dexadrine for ADHD
- Professor Sprague of Uni of Illinois noticed perfect agreement in independent ratings of tardive dyskinesia movements
- NIMH review found “only a few of the experimental subjects described in publications were ever studied”
Stephen Breuning (US, 1988)

- District Court of Maryland: charges
- Plea of guilty
- 60 days in halfway house, 5 yrs probation
- 250 hrs of probation
- Repayment of $11,352
- Agreed not to undertake work as a psychologist for 10 years
Woo-Suk Hwang, Sth Korea, 2010-2014

- High profile veterinarian & Professor at Seoul National Uni: creator of Snuppy
- Claimed in 2004 to have created human stem cell lines using cloned embryos from patients with spinal cord injuries
- Admitted fraud in 2006
- Found guilty of embezzlement & purchasing eggs illegally
Woo-Suk Hwang, Sth Korea, 2010-2014

- Sentenced to 2 years’ jail suspended for 3 years
- Appeals to High Court by Hwang and prosecution: sentenced reduced to 18 months’ suspended for 2 years
- Unsuccessful appeal by Hwang to Supreme Court
Hwang Returns?

- I created an illusion and made it look as if it were real … I was drunk in the bubble I created.’

- Lately Hwang has continued to feature in high profile international cloning experiments attempting to clone Ice Age lions, mammoths and Ethiopian wolves.
CLONING COMEBACK

Ten years ago, Woo Suk Hwang rose to the top of his field before fraud and dodgy biotech practices derailed his career. Can a scientific pariah redeem himself?

BY DAVID GASTER

The now-defunct Research Foundation Seoul in a second-rate building in Gen, a district in southern inside of Seoul, South Korea, is址 in a flat, the released South Korean newspaper the "The Korea Times," which often features articles on cloning and biotechnology. It is small, with a few desks and computers, and is located in a quiet area of the city. The newspaper's office has a light and airy atmosphere, with windows that provide a view of the nearby buildings. The editor, a middle-aged man, is working on a story about cloning, and is surrounded by the latest news and research articles on the subject. The editor is passionate about the topic and is eager to share his insights with readers.

The newspaper's office is also home to a small team of reporters and editors who are dedicated to covering the latest developments in cloning and biotechnology. They have a wealth of knowledge and expertise in the field, and are constantly looking for new stories to cover. The team is known for producing high-quality, informative articles that keep readers up-to-date on the latest news.

The newspaper's office is located in a quiet area of the city, but it is not far from the main streets and public transportation routes. The building is well-maintained and has a pleasant, welcoming atmosphere. The editors and reporters are all friendly and approachable, and are always ready to help answer any questions or concerns that readers might have.

Overall, the newspaper's office is the perfect place for reporting on the latest developments in cloning and biotechnology. The team is dedicated and knowledgeable, and the office is well-equipped and comfortable. It is an ideal setting for thorough, informative reporting on this exciting field.
Eric Poehlman (US, 2006)

- Physiologist who published prolifically on human obesity & ageing
- Research technician identified anomalies in data
- Poehlman took data home and adjusted entries
Eric Poehlman (US, 2006)

- Uni of Vermont investigation found fabrication of data “to enhance his reputation and yield him further opportunities for publication and grant funding”
- Plea of guilty to falsification & fabrication in 10 articles between 1992 and 2001 in federal grant applications: $3 million
- United States: one year jail + 2 yrs probation
Eric Poehlman (US, 2006)

- ‘I was motivated by my own desire to advance as a respected scientist’
- ‘I believed it was legitimate to ‘misrepresent minor pieces of data to increase the odds’ that grants would be awarded to me and his teams.
- Judge Sessions: When scientists use their skill and their intelligence and their sophistication and their position of trust to do something which puts people at risk, that is extraordinarily serious.
Luk Van Parijs (US, 2011)

- Assoc Prof at MIT
- Neuroimmunology: shutting down of genes
- Fabrication of results between 1997 and 2004
- District Ct of Boston
- Plea of guilty 6 months home detention with electronic monitoring + 400 hrs community service, repayment of $60K
Scott Reuben US, 2010

- High profile proponent of multi-modal analgesia therapy heavily funded by Pfizer, Merck & Wyeth
- Professor at Tufts University Medical School and Director of Pain Management at Baystate Medical Center in Springfield, Massachusetts
- 2008 investigation established 21 clinical trials over a 13 year period contained fabricated data
Scott Reuben US, 2010

- Claimed not to have been motivated by greed, that funds received went to his employer, & that his conduct arose from bipolar.

- Sentenced to 6 months imprisonment & 3 years post-release supervision, 4391K in restitution & $50K penalties
Steven Eaton, Scotland

- Manipulated drug trial results between 2003 and 2009, funded by Aptuit
- Faked results and selectively reported
- Claimed to have been under pressure and not to have profited personally.
  Sheriff O’Grady: 3 months jail
  – You could have caused cancer patients unquestionable harm
Craig Grimes, United States, 2012

- Penn State Professor of Material Science & Engineering
- Converted carbon dioxide into energy
- $3m of frauds & false statements to NIH
- Claimed to have been zealous in wanting to help the world
- Sentenced to 41 months jail
Christopher Gillberg
Sweden, 2012

- Professor of Child & Adolescent Psychiatry
- Expert on autism & ADHD
- Destroyed clinical files after accusations in breach of court orders
- Fined 3,400 euros, appealed unsuccessfully through European Ct of Human Rights
Dr Dong Pyou Han, 2014

- Groundbreaking AIDS vaccine researcher
- Confessed to spiking rabbit blood with human antibiotics as part of a federally funded $US19 million
- Assistant Professor, Iowa State University: resigned
- Arrested June 2014 & charged with 4 counts of making false statements
Dong Pyou-Han

- Suspicion had unfairly fallen on 3 others
- At first pleaded not guilty then entered into a plea bargain
- Asserted he could not bring himself to dash the hopes of the research team
- Received no extra funding but kudos
- 57 months’ imprisonment, $7.2 m in repayment to NIH, likely deportation to Korea
Milena Penkowa (Denmark, 2015, 2016)

- Neuroscientist
- Highly publicly and privately funded
- Suspended by University of Copenhagen for embezzlements from Danish Society of Neuroscience
- Then found guilty of scientific dishonesty in systematic supplying of false information involving rat experiments: multiple papers retracted
Milena Penkowa
(Denmark, 2015, 2016)

- 9 months suspended sentence + 2 years probation
- On appeal, sentence quashed on technical grounds although it was acknowledged she had committed fraud
The Centre for Neurogenic Communication Disorders Research at the University of Queensland

Fraud in relation to a Parkinson’s disease study that was publicly and privately funded

Murdoch claimed to have been suffering severe depression after a cancer diagnosis
Caroline Barwood, Australia, 2016

- Barwood claimed depression and stress after charges.
- Both given 2 years’ suspended sentence although Murdoch pleaded guilty and Barwood contested.
- Sentencing judge classified B’s fraud as ‘brazen, unscrupulous and persistent’.
- Rejected proposition she had not benefited from the fraud – it had a range of indirect advantages.
Persons Not Charged: Many

- Haruko Obokata
- Joachim Boldt
- Yoshitaka Fujii
- Jon Sudbo
- Roger Poisson
- Diederik Stapel

Reason not to charge?
The usual motivation appears to be a mixture of intense career and peer pressure to produce significant results and publications, financial incentives to obtain funding grants, and personality disorders or weaknesses, especially vanity and arrogance – the messiah complex. There appear to be two main groups of fraudsters. The first group is the overly ambitious young researcher, determined to climb rapidly up the career ladder. The second group is more perplexing – senior practitioners, often at the height of their careers, and often occupying prestigious positions.
Profiling Research

Fraudsters
- Grandiosity
- Narcissism
- Overly robust sense of entitlement
- Loosened grip on reality & propriety
- Indifference to effects on others
- Charismatic (often)
- Driven/ambitious
- Highly productive
- Obsessive in workplace
- Antagonistically defend allegations, at 1st
Characteristics of Defendants in Research Fraud Prosecutions

- Combination of senior and less senior practitioners
- Conduct premeditated and serial
- Rarely done in company: generally furtive and carefully disguised
- Achieved desired outcomes
- Clearly dishonest but often in combination with other unethical behaviours
- Multiple victims
Criminal Prosecution not the Answer but …

- Scientific research is largely self-correcting
- Research fraud betrays ethical values
- Government and private funding underpins it
- Research fraud is not victimless
The Law is a blunt instrument. It’s not a scalpel. It’s a club. If there is something you consider indefensible, and there is something you consider defensible, and the same laws can take them both out, you are going to find yourself defending the indefensible.
Disadvantages of Criminal Prosecutions

- Not adequately research-informed
- Slow
- Undermines trust
- Stressful
- Selective in defendants
- Focus on dishonesty rather than unethical conduct
- Insensitive
- Punitive
- Too harsh/too lenient
Advantages of Criminal Prosecutions

- Open proceedings: declarative - avoiding suspicions & insinuations of fraternalism:
- Offenders named, shamed, in context of moral culpability determination
- High deterrence factor
- Punishment tended to be modest but needed
- Recognises conduct seriously harmful with multiple victims, especially patients colleagues & profession
- Vindication for funders & whistleblowers
- Properly acknowledges unacceptability of conduct from perspective of profession