

Integridad Científica y Colaboraciones Internacionales



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Seeking an International Dialogue on Research Integrity

Scientific misconduct is a global problem, yet protocols for addressing it remain highly fragmented and uneven. A conference held last month in Lisbon aimed to encourage international efforts to promote research integrity and to prevent misconduct.

High-profile cases of scientific misconduct such as that of disgraced South Korean stem cell researcher Hwang Woo Suk have focused new attention on efforts to promote ethics in scientific research. At the time that Hwang published his now infamous research, South Korea lacked a formal policy for reporting scientific misconduct, and the country had no policies in place to protect whistle blowers, says David Resnik, a bioethicist at the National Institute of Environmental Health Sciences in Durham, North Carolina. With science becoming an increasingly global pursuit, international efforts to promote research integrity have gained momentum. "There's no need to panic or say the sky is falling," says Stefan Michalowski, executive secretary at the Organization for Economic Cooperation and Development (OECD) Global Science Forum in Paris, France. "But on a practical level, there's a need to

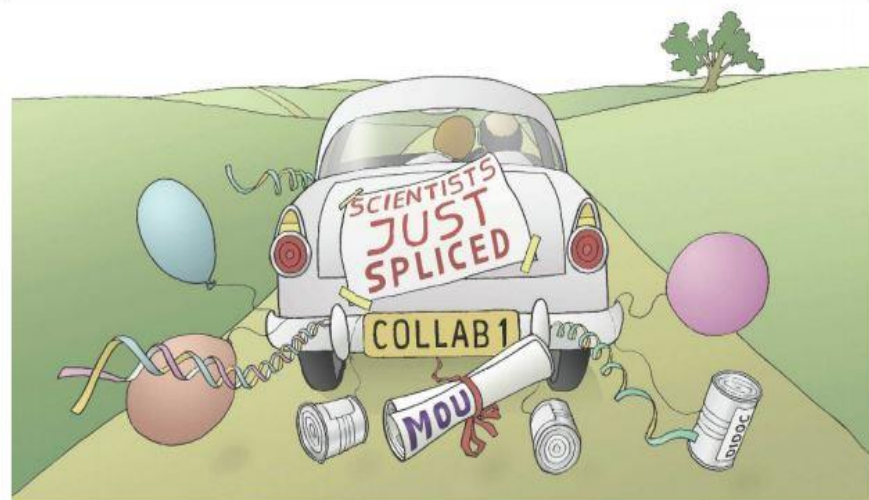
Integrity (ORI) of the U.S. Department of Health and Human Services in Rockville, Maryland and Tony Mayer of the European Science Foundation (ESF) in Strasbourg, France, the conference brought together representatives from 52 countries around the globe. "It was the first time we've gathered this many people together to discuss integrity in research," says Mayer. "We had people from all walks of life in the research world—funders, universities, administrators and researchers." Sponsored by ESF and ORI, the meeting was also supported by other prominent organizations including the International Council for Science (ICSU), the North Atlantic Treaty Organization (NATO), the European Molecular Biology Organization (EMBO), and the Committee on Publication Ethics (COPE).

Promoting Cross-Border Communication

even more challenging when the misconduct involves researchers from another country. "Someone may have authority to investigate misconduct in their own country, but they have no such authority in other countries and they may not know who to talk to," says Michalowski.

Meeting attendees all concurred on certain tenets, notes Mayer. "Everyone can agree that fabrication, falsification and plagiarism is wrong—that goes across cultures." Likewise, there was wide agreement that those types of blatant scientific misconduct are rare, he says. But other forms of scientific misconduct are less easy to define, says Mayer. Pressure to publish and new technology have made it easier and perhaps more tempting for scientists to push the envelope a bit. "People sort of touching up their gels—things like that are a lot easier now than it used to be," says Tim Hunt of Cancer Research UK, a speaker at

COMMENTARY



J.H. VAN DEN BROECK

Investigating international misconduct

The rise in cross-border collaborations is making it more difficult to police misconduct. **Christine Boesz** and **Nigel Lloyd** argue for a framework to examine allegations and hold researchers accountable.

Research misconduct is an issue the research community cannot afford to overlook. Data fabrication or falsification, plagiarism and other unethical behaviors hit the headlines because they damage the scientists involved and erode the public's faith in the research that its taxes support.

Therefore countries, universities, and other research entities must take seriously allegations that arise and hold researchers accountable. One way to do so is by developing and enforcing formal policies and procedures for handling misconduct allegations. Many countries such as the United States, the United Kingdom, Canada, Denmark, Germany and Australia have such formal policies. Many others do not, including some that are major sponsors of research. As multinational, cross-disciplinary research becomes increasingly prevalent and desirable this patchwork presents problems.

When misconduct allegations are raised within international collaborations, differences within and between national policies create practical challenges that must be resolved fairly and objectively. For example: which country or countries conduct an investigation? Should one country assist another with its investigations?

Who do you contact in what country? Worse, what happens when two relevant national policies are at odds?

Research funding agencies such as the US National Science Foundation (NSF) have already faced some of the challenges sketched above. In one case, the NSF Office of Inspector General (OIG) received an allegation of material inaccuracies in a final report of a project intended to facilitate collaboration between a US principal investigator and a foreign scientist. The foreign scientist denied participating in the project and the principal investigator could provide no evidence of the collaboration. After initially assisting in the investigation, the foreign researcher suddenly stopped acknowledging OIG e-mails and refused to provide a sworn statement. The OIG could not compel the non-US researcher to respond to its inquiry and was thus unable to pursue investigative action against the American scientist.

When international students or professors who are accused of research misconduct return to their home countries, resolving allegations becomes more complicated. Investigators often lose touch with such individuals, who are frequently able to continue their studies or find

academic positions in their native countries. Similarly, people against whom a finding of research misconduct is made often re-enter academia in a different country where no one knows their history.

A long shadow

Occasionally, international research misconduct receives so much publicity that all scientists involved are forever linked to it. One such instance involved Woo Suk Hwang, the researcher at Seoul National University in South Korea that *Time* magazine named one of its 'People Who Mattered' in 2004. Hwang and his many co-authors published two acclaimed papers—in 2004 and 2005—claiming to have cloned early-stage human embryos and to have customized stem-cell lines. The papers were later retracted, and Hwang was found guilty of manipulating images, fabricating data, misusing research funds and unethically recruiting donors. He was dismissed from his post, banned from working in a public position for 5 years, and his retirement benefit was halved. Four other professors from the university were suspended and two others had their wages cut.

COMMENT

ENVIRONMENT Street lights that use less energy are better for people and animals p.560

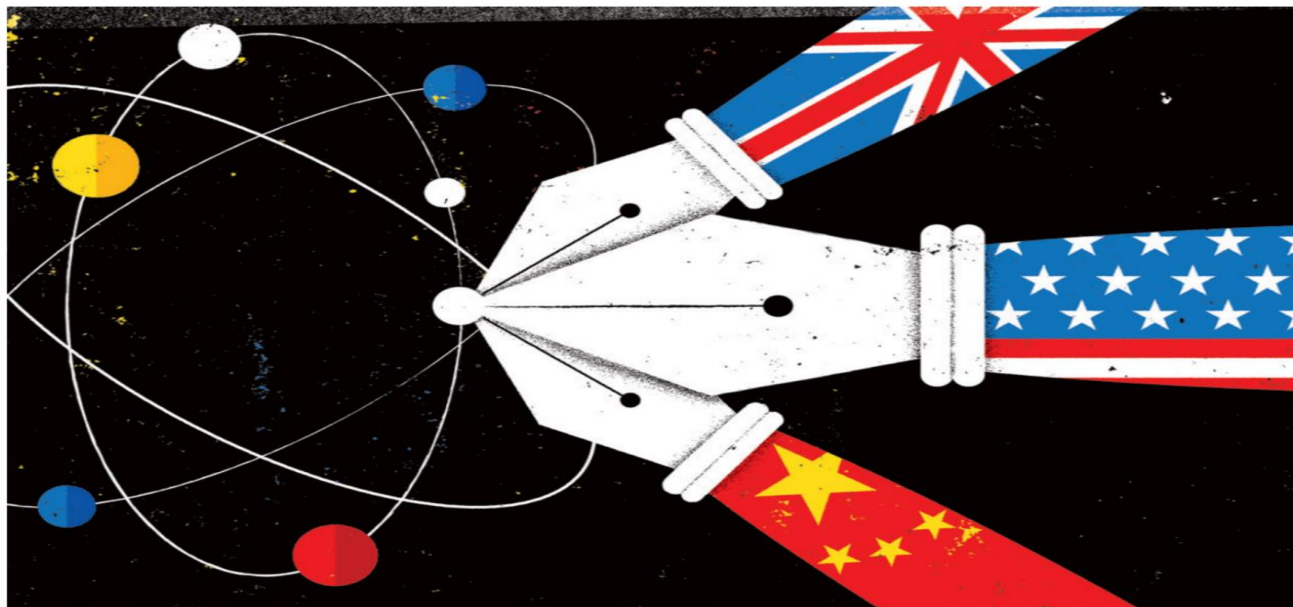
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The fourth age of research

Jonathan Adams analyses papers from the past three decades and finds that the best science comes from international collaboration.

nature International weekly journal of science

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NATURE | COMMENT

Collaborations: The fourth age of research

Jonathan Adams

Nature 497, 557–560 (30 May 2013) | doi:10.1038/497557a
Published online 29 May 2013

Abroad effect

No. published, '000
Impact of scientific papers, 2013



Source: Nature *Index based on field-weighted citations

Ética y Ciencia

- Componente interno:
 - Honestidad intelectual
- Componente deontológico:
 - Normas y regulaciones
- Componente externo
 - Valor social de la ciencia

Investigación Colaborativa

- Trabajo conjunto en un proyecto de investigación o programa que necesita, o se beneficia del conocimiento, perspectivas y/o recursos de distintos grupos de investigadores, independientemente de la ubicación de sus integrantes
- Las colaboraciones implican la consulta, intercambios de datos, acceso a recursos, autorías compartidas, trabajos para conferencias, ensayos clínicos, y cualquier otra actividad cuyo objetivo sea la producción de conocimiento
- Los colaboradores son un equipo, independientemente de la ubicación de sus integrantes
 - (*Concepts and Definitions Taken from Heitman E, Litewka S. Collaborative Research-Basic-CITI Program at the University of Miami*)

Investigaciones Científicas Colaborativas

- La investigación científica es eminentemente, un hecho global
- Beneficios en autoría, publicaciones, intercambio académico, especialmente entre naciones con distintos presupuestos para investigación
- Migración de investigadores en busca de oportunidades

Áreas Grises en Investigaciones Colaborativas

- Estándares diferentes
 - Autoría
 - Propiedad intelectual
 - Uso de animales de laboratorio
- Conflictos de interés
 - Percepción
 - Guías
- Educación en integridad científica
- Políticas institucionales
- Definiciones
- Rol de investigador

Desafíos en Colaboraciones Internacionales

- Diferentes percepciones acerca de el significado de la autoría
 - Tensiones sobre quien impone las normas
 - Educación recibida y “ agenda oculta”
 - Habitualidad
 - Reconocimiento
- Diferentes conceptos sobre el significado de “ prácticas cuestionables”
- Propiedad y uso de los datos generados por el estudio
 - Propiedad intelectual
 - Royalties
- Uso de animales de laboratorio
- Definiciones sobre plagio

Desafíos

Investigaciones con humanos

Diversidad en formas de supervisión

Poblaciones vulnerables y conceptos de “ minorías”

Investigaciones con animales

Diferentes estándares

Mala conducta científica

Estandares mas o menos homogéneos en países industrializados

Interpretaciones culturales

Publicaciones

Criterios de ICMJE u otros?

Jerarquías y roles dentro de cada comunidad científica

Investigaciones de uso dual

Desafíos

Manejo y uso de datos

Idioma en el que se guardarán los registros

Uso dual y divulgación de la metodología

Privacidad y confidencialidad

Conflictos de interés

Intención al obsequiar o recibir obsequios

Valores nominales distintos, de acuerdo al poder de compra de la moneda

Necesidad de acceder a medicamentos u otros insumos

Mentoría

Roles sociales

Falta de mentores

Developing nations 'at higher risk' of research misconduct

Scholars more likely to falsify or fabricate data if they 'can get away with it', researchers say

April 25, 2017

By [John Elmes](#)

Twitter: [@JElmes THE](#)



bioRxiv preprint first posted online Apr. 12, 2017; doi: <http://dx.doi.org/10.1101/126805>. The copyright holder for this preprint (which was not peer-reviewed) is the author/funder. It is made available under a [CC-BY-NC-ND 4.0 International license](#).

Why do scientists falsify data? A matched-control analysis

1 **Why do scientists fabricate and falsify data? A matched-control analysis of**
2 **papers containing problematic image duplications**

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Aspectos a Considerar en Investigaciones Colaborativas Internacionales

- Conocimiento previo de los contextos históricos en ciencia, medicina, y en general, la relación con los aspectos éticos de la ciencia
- Perspectivas culturales que aparecen en el discurso ético
- Normas de comunicación y trato entre pares y entre subordinados en el ambiente académico

Iniciativas Internacionales

- Armonización de políticas y apoyo a la educación en integridad científica por parte de la Oficina de Integridad en la Investigación (ORI) y la Fundación Europea para la Ciencia (ESF) (Foros Globales para la Integridad en la Investigación en Lisboa 2007, Singapur 2010; Río de Janeiro 2012; Montreal 2013, Río de Janeiro 2015, Amsterdam 2017). BRISPE (Encuentro Brasileño para la Integridad Científica, Ciencia y Ética de las Publicaciones 2012)
- Actividades de la Organización para la Cooperación y el Desarrollo (OECD) y el Foro Global de Ciencias
- Comités Internacionales de Editores de Publicaciones Médicas (ICMJE); Comité de Ética en Publicaciones(COPE)
- Consejo Inter Académico y Red Global de Ciencias (Inter Academy Council and the Global Network of Science Academies)
- Difusión pública, por ejemplo “Retraction Watch”:
<http://retractionwatch.wordpress.com>

Conclusiones

- La globalización en ciencia no es un fenómeno reciente, pero la velocidad de las comunicaciones ha generado nuevas oportunidades para la colaboración entre investigadores, y a la vez, ha generado nuevas amenazas a la empresa científica
- Siendo que la ciencia esta globalizada, la ética de la investigación también debería responder a parámetros y estándares mínimos aceptados por todos los miembros del equipo de investigación, independientemente de las diferencias culturales u organizacionales