

# **An introduction to research integrity**

**James Parry, Chief Executive, UKRIO**

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**‘Research integrity’ = good practice**



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“Most people say that it is the intellect which makes a great scientist. **They are wrong: it is character.**”

Albert Einstein

“In general terms, responsible conduct in research is simply good citizenship applied to professional life... **However, the specifics of good citizenship in research can be a challenge to understand and put into practice.**”

US ORI *Introduction to the Responsible Conduct of Research* (2007)

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But what has this go to do with me?



- Key elements of research integrity are:
  - Honesty, Rigour, Transparency and Open Communication, Care and Respect, Accountability  
*UK Concordat to Support Research Integrity (2019)*
- Key themes:
  - All disciplines
  - All career stages
  - All elements of your research: from beginning to end
  - **Enabling research, not restricting it**
  - **Safeguarding trust in research**

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# Problems are rare?

- Fanelli, D., 2009. [How Many Scientists Fabricate and Falsify Research? A Systematic Review and Meta-Analysis of Survey Data:](#)
  - On average, 1.97% of respondents admitted to have **fabricated, falsified or modified data or results** at least once.
  - Up to 33.7% admitted to **questionable research practices**.
- **What about mistakes?**
  - Studies looking at the causes of retractions suggest that **c.12% - c.19% are caused by honest errors** (e.g. [Moylan, E.C., and Kowalczyk, M.K., 2016](#) and [Fanelli, D., 2016.](#))

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## Can problems be prevented?



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- A recurring theme from UKRIO: problems occurring because of **overconfidence, bad habits or a failure to get help.**
  - Awareness and training: researchers need to be encouraged to **be self-critical** and there should be **no stigma attached to asking for assistance.**
  - Organisations need to **support their researchers** in this.
  - A key lesson from UKRIO's unique experience: **serious problems could have easily been avoided with a bit of foresight.**

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# What is 'good' research?

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- Rigorous
- Accurate
- Original
- Honest
- Transparent
- Collaborative
- Multidisciplinary
- Open
- Creative
- To the benefit of society

[The Culture of Scientific Research in the UK](#) Nuffield Council on Bioethics (2014)

- Also: 'No such thing as failures, only setbacks'
- **What do all of the above traits look like in different types/disciplines of research?**

# Research culture: 'Publish or perish' vs. ethics & reflection



## TOP FIVE INCENTIVES FOR EACH CATEGORY AS RATED FOR THEIR POTENTIAL IMPACT ON RESEARCH INTEGRITY\*

### Strongly positive perceived impact:

Data sharing policies and requirements

Open access publishing

Interdisciplinary research

Professional development and training opportunities

Research leadership and management

### Positive and negative perceived impact:

Media coverage and public perception of research

Research leadership and management

How funding for specific projects is awarded

How researchers are assessed for promotion during their careers

Institutional research strategy

### Strongly negative perceived impact:

Incidents of bullying and harassment

Use of journal impact factor (JIF), h-index and other metrics

League tables of institutions

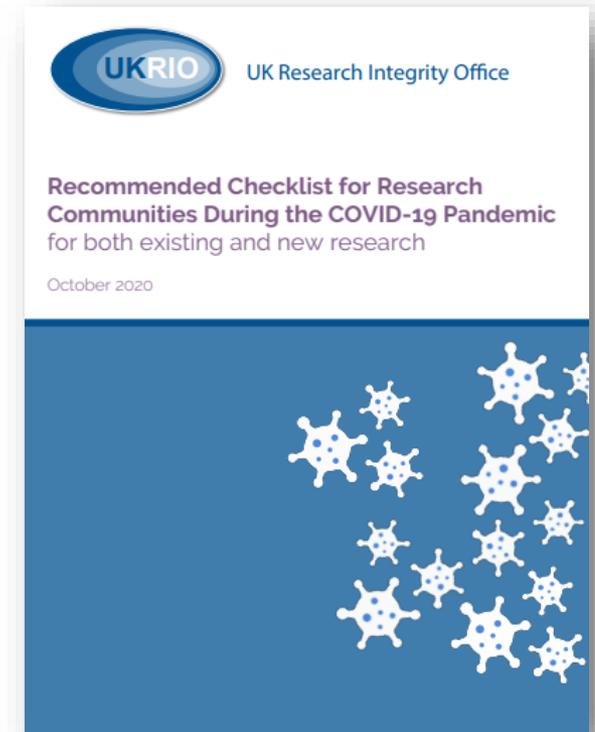
Institutional workload models

How researchers are assessed for promotion during their careers

**Source:** [Research Integrity: a landscape study](#), June 2020  
Vitae, UKRIO and UKRN, on behalf of UKRI

# Research during a pandemic

- Considerable effects on how research is designed, funded, conducted, managed, monitored and disseminated.
- Huge impact on health, wellbeing and working practices of researchers and of society as a whole.
- How to best support researchers during these times?
- **Are there any new working practices which we should try to retain long term?**



**UKRIO [Recommended Checklist for Research Communities During the COVID-19 Pandemic](#)**  
(2020)

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## Questions and discussion



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- **What challenges do you face** when trying to do high quality, ethical research?
  - **What do you need to help you** overcome these challenges?
  - **What can you do** yourselves? **What role should others play** – e.g. institutions, funders, publishers, etc?
  - **How do we want to improve research culture:** what changes, and how? What shouldn't be changed?