Inquiry background

- As you’ll have heard, the Science and Technology Committee has been working on an inquiry into research integrity. It began originally began under my predecessor in January last year, and the new Committee agreed to continue it after a short hiatus for the 2017 General Election.

- We’ve reached the end of the evidence-gathering phase of the inquiry now. We held 6 oral evidence sessions, which included taking evidence from Sir Bernard and James Parry on behalf of UKRIO. We also heard from university representatives, publishers, and funders.

- We’ve received over 100 written submissions, including from some of you in the room today. The Committee is very grateful for everyone’s input.

- The next step is for the Committee to agree a report with recommendations to the Government. I anticipate that this will be published in the next few weeks. It’s too early to give you the Committee’s firm conclusions – we still need to have that discussion. But I can talk to you about some of the issues that we’ve explored through the inquiry, and the things that are in my mind at the moment.
The importance of research integrity

Before I do so, it's worth taking a moment to underline the importance of research integrity, and the importance of research itself. The Committee noted in its Brexit report recently that the UK has a leadership position in science, and it's now a familiar statistic that the UK accounted for almost 16% of the world's most highly cited articles in 2013, despite having less than 1% of the global population and around 4% of researchers. We have a reputation for research excellence to protect and uphold.

Many of you here today are research and governance managers. You know that research is how we push back the frontiers of knowledge, and helps us understand the world we live in. It’s hard to overstate the significance of research as a concept. Research is how we find cures for diseases, and how we tackle global challenges like climate change.

Research is a key pillar of the Government’s new industrial strategy. And research is also a huge national industry in itself. The Government has set itself the ambitious aim of increasing the total amount of money spent by public and private organisations on research from just over £30bn a year to £46bn by 2027. Researchers turn that investment into knowledge and expertise.

But the consequences of errors in research—whether that's down to sloppiness, poor study design, or outright fraud—can be dramatic. At the extreme end, lives can be at stake. And significant amounts of research money and human effort can be wasted if a study is underpowered, or is compromised by poor uses of statistics, or is manipulated, or simply left unreported.

Certainly the temptation to compromise on integrity is there. You’ll be familiar with the Nuffield Council on Bioethics report which found that 26% of respondents had felt tempted or under pressure to compromise on standards, and 58% saying they knew of others who had felt this temptation or pressure.

Integrity in research is not just about getting more Nobel-prize winning discoveries, publishing the top cited articles, investing
millions of pounds in atom-smashing, or finding the results that will change the world. **Integrity is something that has to run through every piece of research, and must be embedded in the attitudes and behaviours of researchers.** Integrity clearly has to be at the heart of the systems that support researchers in their work, that monitor their output, and investigate when things go wrong.

- Researchers in the UK are also in the enviable position of being trusted to tell the truth – far more so than politicians! But **that position of trust should not be taken for granted.** If the public mistrusts research because of a lack of integrity in some areas – or a lack of clear processes for tackling problems when they arise – then that could have a dramatic effect on public discourse about science.

- With that in mind, now is a good point to **thank everyone here today for the work you do to support research integrity** – whether that’s through a university, or a publisher, a funder, or industry. Your work is important, and that the fact that you are here today shows your commitment to protecting and promoting the integrity of research. I’m sure it’s often a thankless task, not least for those of you involved in painful misconduct proceedings. **Thank you** for the work that you do.

**The Concordat to Support Research Integrity**

- I’d like to talk now about the work that the Committee has been doing on research integrity. **We’ve talked about a wide range of issues during our inquiry,** including:
  
  - “research culture”,
  - “questionable research practices”,
  - training for researchers,
  - sticks and carrots for compliance through the funding system,
  - and even issues such as publication bias and clinical trials transparency.
• You’ll be able to read all our findings on these points in the report when it is published. **But what I’d like to spend some time on today is the Concordat to Support Research Integrity.**

• The Concordat approach has attracted a lot of support in the university sector—we received a lot of supportive comments about it. But I was struck by the **low proportion of universities that comply with some of the basic recommendations**, 6 years on from the Concordat being signed.

• **I wrote to all UUK members in November** to ask them about their compliance on three simple points—providing a named contact for research integrity, producing an annual narrative statement, and providing a whistleblowing contact. I can share with you some statistics from that process, and we’ll be publishing all the information and responses as part of our report.

• 58% of universities were able to point us to a published report on research integrity, and a further 17% told us that they intended to publish a report for 2016/17 shortly—in several cases explicitly prompted by my letter. But this leaves **around a quarter who do not publish such an annual narrative statement**. I realise that these institutions may not be where most of the public’s research money is spent, but surely the same principles should apply across the board.

• Of those who did not publish a statement, **the majority told us that they simply hadn’t felt a need to publish a nil return**—perhaps equivalent to saying “there are no problems with research integrity here, so what is there to say?”. Meanwhile, we’ve been told that consistent nil returns could be a cause for concern, and that instead universities should be **proud to show where they have identified potential problems and then acted appropriately**.

• Other responses were more intriguing. A handful expressed concerns about confidentiality—despite the fact that most other universities can handle this issue appropriately. One told us that there were “challenges” in
“how to represent the information in a way that doesn’t over-inflate the scale of the problem”.

Another told us that

“To single out research integrity could, we believe, run the risk of it being perceived as being more important than other equally significant matters (e.g. misconduct in relation to our equality and diversity agenda).”

• Personally, I think transparency is crucial here. A lack of clarity on the extent of misconduct—even if that lack of clarity is inadvertent—will not do the community any good in the long run.

• We’ve already been told that “We’ve had enough of experts”—let’s not get to the stage where the public have had enough of research itself too as something to be trusted.

• Personally, I think we should be upfront about the fact that there are people in every walk of life who will attempt to cheat in one way or another, for their own gain or through external pressures. And of course there will be honest mistakes as well. Research is not immune to any of this, and if we pretend it is, then there will be trouble in the future.

• The answer, surely, is greater transparency, and a clear demonstration that the community takes this seriously. I would imagine that those of you in the audience today who work in universities are from institutions that do publish information. But if for some reason your does not, I’d like to encourage you to talk to your Vice-Chancellor again.

• It’s not a good look for the community if, 6 years on from the Concordat being signed, a quarter of universities are still not meeting some fairly basic points of compliance.

• I’m pleased to say that when I put these points to the Science Minister Sam Gyimah, he said that current compliance levels were
not good enough, and that his “personal expectation of every vice-chancellor is that there should be 100% compliance”.

- I think it’s also clear that there’s a need for the Concordat itself to be tightened. It’s very high-level at the moment, and there don’t seem to be any consequences for non-compliance. I’m aware that a Research Integrity Forum is being convened to look at this once our report is published. Clarity on what compliance means is important here.

- It’s also good news that the next Research Excellence Framework (REF) in will assess how institutions approach research integrity as part of the assessment of the “research environment”.

- However, I was surprised to learn that only half of UUK members are subscribers to UKRIO. In contrast, on a recent visit to Brussels, I was told that virtually every university subscribes to a body with a very similar name – UKRO – which promotes the UK’s research interests in Europe. Surely every opportunity must be taken to send the message that the community takes research integrity seriously, and every opportunity to engage with these issues must be taken.

Research integrity is not just about universities

- But I should also highlight that research integrity is not all just about universities, and certainly not on their own. There are lots of relevant players in this system—funders, publishers, professional bodies—and we’ve heard about their respective roles in this as part of the inquiry. Some of you are representing those groups today.

- Research doesn’t just happen in universities either. Plenty of publicly-funded research takes place in industry, and it’s interesting that UKRIO has only a tiny number of industry subscribers, with very few submitting evidence to our inquiry. I also wrote to all Chief Scientific Advisers in Government departments to ask them about integrity processes for the work they commission or undertake.
• I was pleased to hear that, as a result of our inquiry, the Government Chief Scientific Adviser has written to the CSAs to press every government department to sign up to the Concordat. If the Concordat is suitably strengthened, I think this will be a good outcome. The more groups that are thinking about research integrity issues the better.

Trials transparency

• Research integrity isn’t just about misconduct either, much as it’s tempting to focus on the more salacious examples. There’s also the issue of the integrity of the published research base itself – and its completeness.

• Dr Ben Goldacre gave us some very surprising evidence that the problem of clinical trials results not being published remains a bit issue, despite years of discussion and rules being introduced.

• If the results of some studies are not published then that’s a waste of research effort, a waste of huge amounts of money, and a distortion of the published literature as a whole. I was encouraged that Patrick Vallance, the new Government Chief Scientific Adviser, told us that

  “Taking part in a clinical study is something that inevitably puts you at risk for the benefit of others. Therefore, the data should be made public. I do not think there should be any exceptions.”

• And yet, I’m told that Dr Goldacre will shortly be releasing information, university by university, on the proportion of trials published. Some are doing well, but others will perform very poorly by this measure. I look forward to seeing this information when it is published, as I hope it will be a prompt for everyone to get their house in order. The message from the Minister and Dr Vallance was “sort it out”, and I agree with them.

• This is clearly a research integrity issue. It’s likely that my Committee will want to devote a dedicated report to the problem to do justice to the information that we’ve received.
External oversight or regulation

- A final point I’d like to raise is the question of external oversight or regulation of research integrity. **We were told that employers of researchers are, in effect, marking their own homework when it comes to investigating misconduct—that perception is out there.**

- We’ve explored some interesting international examples of systems for tackling research misconduct, including in the USA, in Denmark, and Australia. In **Australia** and **Canada**, an external committee can be asked to check whether the employer has followed misconduct procedures appropriately—an external check that issues are not being hushed up or swept under the carpet.

- **My Committee has yet to reach any conclusions about what to recommend here**, but I’d like to leave you with the open question of how best to balance an employer’s responsibility to investigate misconduct with the need to avoid a situation where problems can appear to be skirted over to avoid embarrassment. There was considerable resistance to external **regulation** from the universities who wrote to us, but it’s a natural question to ask.

- We’re under no illusions – something like this would only answer some of the questions that our inquiry has thrown up. There is also the question of how to create the right ‘research culture’ in institutions, and tackle problems that might best be addressed through, training such as poor uses of statistics and other ‘questionable research practices’.

- But having been through this inquiry I want to be sure that the research community can demonstrate that it takes research integrity seriously and that processes are in place to check that investigations are done properly. Without that, I worry that confidence in research could take a significant knock one day. The solution at that point might be the kind of overbearing external regulation that universities argue against.
• I’ll be discussing these points with my Committee colleagues soon. I’d like to leave you with the analogy of doping in sport. When it happens, it tarnishes the reputation of all kinds of sporting endeavours, not just the people involved. Just like in research, it appears to be very rare that people cheat, but when it happens it’s important that it’s dealt with properly so that the public can see that this isn’t tolerated.

• I hope that the sector will see our inquiry as a suitable challenge that it can rise to, rather than a stick to beat universities with. We should never take the excellence or high esteem of our research sector for granted.

• Thank you all again for engaging with our work – look out for the report in the coming weeks.