## **Economics Legislation Committee**

## ANSWERS TO QUESTIONS ON NOTICE

Industry, Innovation and Science Portfolio 2017 - 2018 Budget Estimates 31 May – 1 June 2017

**AGENCY/DEPARTMENT:** CSIRO

**TOPIC:** Complains of scientific misconduct in publications

**REFERENCE:** Questions on Notice (Hansard, 1 June 2017, page 27-28)

**QUESTION No.:** BI-23

Senator KIM CARR: I will just follow through on some of the argument that Senator Roberts presented, Dr Marshall. Could you remind me of how many instances there are where the CSIRO has been engaged in accusations of scientific misconduct?

Dr Marshall: In my time, I do not think there have been any. We hold ourselves to the highest possible standard, but I will refer to my colleague. Senator, you are saying—

Senator KIM CARR: This is a concept that is understood in the research community. There are the ethics and scientific misconduct procedures that are available through the Australian Research Council and through our universities. Have you been engaged in or charged with any scientific fraud or any suggestion that data has been manipulated or misused in any of your publications? Has your quality assurance regime ever been questioned? Are there any examples that you are aware of, Dr Marshall?

Dr Marshall: Not that I am aware of, but I will refer to Dr Steele, who is responsible for science excellence inside CSIRO.

Dr Steele: There have been a relatively small number of cases in the last five years that I can think of where there have been questions about scientific publications. Usually they have been of the form of: 'Were all the appropriate authors included in the scientific publication?'

Senator KIM CARR: So professional jealousy questions?

Dr Steele: And sometimes legitimate questions about whether or not the process is truly—Senator KIM CARR: Was there ever a question about the validity of the scientific results that have been presented?

Dr Steele: None that come to mind. I am happy to take the question on notice to give a further confirmation on—

Senator KIM CARR: No, I do not mean arguments about scientific conclusions, because that is the nature of the debate—it is contestable, and two scientists may well have different views about data. But has there ever been a question about the authority of the scientific data that has been presented under the CSIRO logo?

Dr Steele: Not that I am aware of. And I would just make the observation that it is the very essence of the scientific publication process to put it into the contest of the scientific community.

Senator KIM CARR: That is right. There will be an argument, and it may well be about interpretation of data; I accept all of that. I am just particularly concerned by that line of questioning that suggests that, somehow or other, the CSIRO is involved in any conspiracy to falsify the scientific record.

Dr Steele: Just to add to that, we would not take the view that it is our intention or our expectation that, once we have published something, the whole world will genuflect to it and say, 'It must definitely be it.'

Senator KIM CARR: No, I was not—

Dr Steele: You cannot give a guarantee that it is where everything is going to land. It is into a scientific contest—

Senator KIM CARR: It has to be argued about. That is how we actually get change. That is the

whole nature of the process. I understand that. However, if you could please take on notice any complaint in terms of the data—any complaint as to the scientific integrity of the data presentation under the CSIRO logo.

Dr Steele: We will be pleased to answer that question.

## **ANSWER**

CSIRO has a number of avenues by which allegations of scientific fraud might be raised or identified. These include:

- Via internal audit processes the most recent of which was the *Research Conduct Audit Internal Audit Report 31 October 2016*
- With CSIRO's legal team
- With CSIRO's ethics team
- With CSIRO's science leadership teams
- With CSIRO Security

In the last five years, CSIRO has not had any such complaints received or observed. For clarity this is answered in relation to allegations of fraudulent scientific data or misconduct in relation to the integrity of the scientific data per se. As the Senate has been informed, there have been occasions where issues have been raised in relation to scientific publications related to attribution of authorship, or copyright issues.