UKRN Position on Meta-Research

The UK Reproducibility Network Steering Group
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Across many fields of research, it is now apparent that shortcomings in the design, conduct, analysis and reporting of research weaken our collective efforts and limit our ability to translate knowledge into societal benefit. In many fields the problem is well understood, in others less so. Documenting the existence of such problems and understanding the causes is an important first step, but to be able to do something about it we also need to know which actions or interventions will improve research; whether such actions have unintended consequences; and where the balance lies between the cost of such interventions and their benefits.

At present, while there are examples of randomised trials testing the effectiveness of different interventions, we largely proceed on the basis of trial and error. Importantly, we lack the research capacity to be able to efficiently address these issues, and we lack a career structure for meta-researchers, or “researchers on research”. For the most part, that work which is done is conducted by senior researchers who are already established in another discipline. The growing cadre of early career researchers who are interested in this work have few opportunities for advancement and career development.

Indeed, many stakeholders use systems for research categorisation that do not include “research on research”. However, recent history demonstrates that new disciplines and career pathways can emerge and rapidly form an important part of the research landscape over a relatively short period. The growth in evidence-based medicine, using evidence synthesis methods promoted by, among others, the [Cochrane Collaboration](#), is one example. There are now entire funding mechanisms devoted to activity of this kind, and it forms an integral part of applied biomedical science (with downstream benefits for other areas of fundamental science).

Support for meta-research remains limited, and there are few opportunities for early career researchers who wish to pursue this avenue. In any enterprise there is a need to ensure constant evaluation – of processes, methods, and incentives – to ensure that the enterprise is as successful as it can be. We are keen to work with funders to identify ways in which a small proportion of their budget can be allocated to meta-research, to ensure that the remainder of that budget is well spent and provides an efficient and valuable return. In our view, that investment will repay itself several times over, by ensuring the quality of the research we produce.

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