

Financial Year	Internal ID	Applicant Surname	Lead Applicant
2018/19	214461/Z/18/Z	Grimes	Dr David Robert Grimes

Other Applicant(s)	Sponsor(s)	Grant Programme:Title	Recipient Org:Name
		Research on Research Fund	Trinity College Dublin

Region	Recipient Org:Country
Ireland	Ireland

Title	Description
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Investigating and improving science trustworthiness through mathematical modelling	<p>It is imperative that both researchers and the general public have confidence in results from science and medicine - the scientific method itself pivots on the concept that findings are replicable. Unfortunately, much published science and medicine falls short of this standard, and in many fields there is growing concern about an emerging reproducibility crisis. There is urgent need to quantify the scope of the problem, and quantify the impact different factors have in shaping the sub-optimal paradigm. Mathematical modelling is ideal for this purpose, as it allows powerful and flexible insight into a wealth of factors that sculpt research trustworthiness. Crucially, it also allows exploration of factors we cannot easily measure or detect, pin-pointing as to how precisely these might manifest. This proposal has three interrelated aims.</p> <ol style="list-style-type: none"> <li>1. To create realistic simulations of the research eco-system to understand how science trustworthiness evolves under different pressures, interventions, and incentives.</li> <li>2. To use these model simulations in collaboration with other meta-research groups to inform and improve research policy for fellow scientists, funders, and the wider research community</li> <li>3. To contribute to development of new tools for analysing statistical / image manipulations, in addition to training scientists to avoid misconduct:</li> </ol>
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Planned Dates:Start Date	Planned Dates:End Date	Currency
2019-06-01	2019-08-26	GBP

Amount Awarded	Partnership Value	Partnership Name	Award Date
107,312.00	107,312.00		2018-10-11

Approval Committee	Identifier
Research on Research Committee	360G-Wellcome-214461_Z_18_Z

Recipient Org:Identifier	Funding Org:Name	Funding Org:Identifier
360G-Wellcome-ORG:Trinity-College-Dublin	The Wellcome Trust	GB-CHC-210183