

RAPID ASSISTANCE IN MODELLING THE PANDEMIC: RAMP

Response ID	Completion date	Download
583945-583936-57830264	2 Apr 2020, 10:37 (BST)	Download as PDF
1	Name:	Dr Josh Firth
2	Role:	PI
3	Affiliation (Group Name, Department, Institution / Company):	Firth Network, Department of Zoology, Oxford University
4	Your email address:	joshua.firth@zoo.ox.ac.uk
5	Your contact phone number (optional):	07402898043
6	How many people in your Group/Team are willing to contribute to RAMP, with how much of their work time between April 1 and July 31? [Please answer along the lines of the following example response: PIs: 3, 10% FTE each; Postdocs 2, 20% FTE each; PhD students 3, with 1@50% and 2 at 10%.]	PI: 1 @ 30% FTE PhD student: 1 @ 25% FTE
7	Please give a concise summary of the skills sets that the above staff can offer and that might be of use to RAMP. Please flag anything relevant that you consider	My current work is heavily focussed on contagions in natural populations, particularly focussing on how the structure of natural populations (e.g. individual differences, missing data) shapes the spread of simple and complex contagions. More specifically, my research funding currently comes

	<p>exceptional or unique (and briefly say why). Link these to named individuals where appropriate.</p>	<p>from 3 grants awarded within the past 12mo (as PI or leading Co-I – and totalling 1.2mil) on the topics of: (i) behavioural contagions in animal populations, (ii) how age structure interplays with social network structure across different types of societies and (iii) behavioural contagions in human social networks.</p> <p>My secondary lines of research also hold relevance to this topic, such as handling and analysing big data on human health (including how this relates to data from tracking technologies), wildlife disease and its relation to spatial and social structuring, and using simulated systems to assess social network structure and contagions.</p>
<p>8</p>	<p>Please identify any existing resources at your disposal, such as computer codes or datasets, that could be either directly deployed or modified to assist the RAMP effort. Please say whether you control these resources directly or would require permission from others, and to what extent they might be made available. Please flag anything exceptional or unique about them.</p>	<p>"Datasets" : BioBank data (e.g. for addressing baseline data in relation to health and activity patterns)</p> <p>"Computer codes" : A newly designed (but currently unpublished) R package for assessing complex contagions in natural populations.</p>
<p>9</p>	<p>Please say what kinds of compute resource are typically exploited by your group.</p>	<p>Laptops Faculty level supercomputers</p>
<p>9.b</p>	<p>Is your current work often limited by the compute resource available?</p>	<p>No</p>

10	<p>Please indicate the kinds of software and coding tools typically used in your group and that you think might be relevant to RAMP.</p>	<p>Primary software: R</p>
11	<p>If you can, please give details of some outputs representative of the types of work currently done in your group. These could be scientific papers, github or other open source resources, published reports, or internal company reports. Please provide an abstract for anything not publicly visible, and a link for anything hard to find. Please list in order of likely relevance with a maximum of 6 items.</p>	<p>(A) Three Relevant Current Funding Grants</p> <p>(1) Firth 2019 - Understanding Age and Society using Natural Populations – BBSRC - https://gtr.ukri.org/projects?ref=BB%2FS009752%2F1</p> <p>(2) Sheldon, Cole & Firth 2019 - THE ECOLOGY OF BEHAVIOURAL CONTAGION IN NATURAL SYSTEMS – NERC - https://gtr.ukri.org/projects?ref=NE%2FS010335%2F1</p> <p>(3) Krause, Sheldon, Firth et al. 2019 - A Network Approach to Conservation Behaviour: The Social Structure and Spread of Initiatives in Conservation-Relevant Communities – OXBER Seed Grants - https://www.berlin-university-alliance.de/en/commitments/international/oxford/call/oxber-research-partnership-second-call-seed-funding-proposals.pdf</p> <p>(B) Three Previous Publications of Particular Potential Relevance</p> <p>(4) Firth JA. 2020. Considering Complexity: Animal Social Networks and Behavioural Contagions. Trends in Ecology and Evolution; DOI: 10.1016/j.tree.2019.10.009</p> <p>(5) Someville M, Firth JA et al. 2018. Movement and conformity interact to establish local behavioural traditions in animal populations. PLoS Computational Biology; DOI: 10.1371/journal.pcbi.1006647</p> <p>(6) Firth JA. et al. 2017. Indirectly connected: simple social differences can explain the causes and apparent consequences of complex social network positions. Proceedings of the Royal Society B; DOI: 10.1098/rspb.2017.1939.</p>
12	<p>Have you already started working on a research project on pandemic modelling?</p>	<p>No</p>

	If yes, please give brief details and say when this was initiated, and whether it is at the planning stage or already underway.	
13	Please explain any aspect of your participation that could require commercial confidentiality or other restrictions to be maintained. (Examples might include commercially sensitive codes, or data on human patients.)	If using UK BioBank Data for baseline health/trends data, may need UK BioBank Permissions
14	Please name (with contact details if possible) any national subject networks, special interest groups, working parties, etc. to which you belong and whose existing structures might be used to the benefit of RAMP.	e-COST expert at European Cooperation in Science and Technology.
15	Are you, or a nominee (if so, give their name) willing to serve in a coordinating role, for instance on a RAMP steering sub-group or as a work package leader across institutions?	Yes
16	In the initial period we are establishing RAMP on a voluntary basis. However, if you feel your participation is directly limited by short-term financial	No financial support needed

	considerations, please explain why and say how much financial support you would need to be effective.	
17	Are there any questions you think we should have asked on this form but didn't? If yes, please state the question and then give your own answer to it.	N/A
18	Do you have any further comments or suggestions?	N/A