



Matt Boyd <mattjamesboyd@gmail.com>

FW: Your EA Funds grant application submission (616ca91b85323a40332d0211)

1 message

Nick Wilson <nick.wilson@otago.ac.nz>
To: mattjamesboyd <mattjamesboyd@gmail.com>

Mon, Oct 18, 2021 at 12:18 PM

Thanks very much Matt – you make it so easy for me!

Details below

Ngā mihi nui

Nick

Professor Nick Wilson,

Te Tari Hauora Tūmatanui, Department of Public Health, Te Whare Wānanga o Otāgo ki Te Whanga-nui-a-Tara; University of Otago, Wellington, New Zealand

Director, Burden of Disease Epidemiology, Equity and Cost-Effectiveness Programme (BODE³)

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From: no-reply=paperform.co@mg.paperform.co <no-reply=paperform.co@mg.paperform.co> **On Behalf Of** Paperform
Sent: Monday, 18 October 2021 11:52 AM
To: Nick Wilson <nick.wilson@otago.ac.nz>
Subject: Your EA Funds grant application submission (616ca91b85323a40332d0211)

Hi Nick Wilson,

Thanks for applying for a grant from EA Funds. We have attached a copy of your submission below. We expect to respond to you by the decision deadline indicated in the application form.

If you decide to retract your application (e.g., you received funding from another source), please let us know as early as possible. Doing so will save the fund managers time spent evaluating your application. To let us know, please reach out with a quick message to the fund you applied to:

- Animal Welfare Fund: animalwelfare@effectivealtruismfunds.org
- Effective Altruism Infrastructure Fund: eainfrastructure@effectivealtruismfunds.org
- Long-Term Future Fund: longtermfuture@effectivealtruismfunds.org

Thank you.

Best,

The EA Funds Team

Submitted At

2021-10-17 22:52:11

Fund

Long-Term Future Fund

Secondary fund: Effective Altruism Infrastructure Fund

No

Confirmation of fund scope

I confirm that I have read the information about the scope of each fund I am applying to, and that my application falls within the scope of the relevant fund(s).

Name

Nick Wilson

Organization name

University of Otago, Wellington, New Zealand

Organization website

<https://www.otago.ac.nz/wellington/departments/publichealth/staff/otago024455.html>

Email address

nick.wilson@otago.ac.nz

Short description

Fund a research fellow to identify island societies likely to survive sun-blocking catastrophes and optimising chances

Summary

Human civilisation is threatened by catastrophic scenarios that could bring global winter, including nuclear war, mis-engineered solar radiation management, supervolcanic eruption, and comet/asteroid impact.

Collectively these may pose a 0.1–10% chance of causing a 100% agricultural failure this century, and an 80% chance of 10% agricultural shortfall. Severe agricultural disruption could cause civilizational collapse.

Analysis of adaptive human capacity is important to determine the impact of such events. Modelling suggests some locations might suffer far less severe climate disruptions. Eg islands may benefit from the thermal moderating impact of the ocean.

Strategies to overcome winter scenarios include use of marine food resources, developing non-photosynthetic food systems and other technical and social innovations.

Aim: to deduce which islands are likely to survive, and mitigating actions to take ahead of time to maximize chances of sustaining flourishing hubs of complexity.

Project goals

o Analyses exist that describe winter inducing threats and locations of safety are implied (eg, New Zealand, Australia in some scenarios). Additionally, research has outlined some mitigation approaches for agricultural shortfall and for global winters. However, lacking is an analysis explicitly connecting the scope and impact of these threats to the adaptive potential of key populations, and details of how exactly the specific least-impacted populations might anticipate, adapt and survive. The goal of this project is to fill this gap.

Project components:

(1) A literature review of global winter-inducing threats to determine the likely probability, impact and up-to-date climate modelling for each risk.

(2) From (1), identification of island nations most likely to survive the various climate perturbations.

- (3) Ranking the islands on important metrics such as food production systems, human capital, technology and self-sufficiency, and hazards.
 - (4) A literature review to determine the adaptations (alternative food projects, governance/legislation, tsunami defences, and other technical/social approaches) most likely to assist the island nations to survive a winter scenario.
 - (5) Identifying, for the highest-ranking islands, the specific projects they could undertake given their context to maximise their chances of adapting to and surviving a severe global winter scenario.
 - (6) Tabulating synergies and cross-cutting benefits that investment in these programmes would result in, with reference to previous island refuge research, for example in the domain of pandemics. Noting that benefits will accrue to any generic agricultural failure threat.
- o Dissemination: a research paper detailing the findings will be produced and published in a peer-reviewed open access scholarly journal along with a blog post on the EA Forum. Copies will be distributed to the governments of island nations with the offer of conversations/presentations detailing these solutions. Findings will be presented at appropriate catastrophic/existential risk conferences.
 - o Impact: The project will provide a preliminary rationale and roadmap for island states to act to mitigate the impact of civilizational collapse due to winter scenarios. It will provide a starting point and impetus for geopolitical negotiations to ensure a set of islands are suitably prepared to provide some increased chance to surviving a global winter and thereby sustain flourishing hubs of human societal complexity.

Track record

- Professor Wilson's profile on the University of Otago website: <https://www.otago.ac.nz/wellington/departments/publichealth/staff/otago024455.html>
- Professor Wilson's track record as former New Zealand Chairperson for International Physicians for the Prevention of Nuclear War and in publishing on aspects of nuclear war and conflict: <https://www.otago.ac.nz/wellington/departments/publichealth/staff/otago063309.html>

Relevant peer-reviewed publications:

- Islands as refuges from global pandemics: <https://wiley.altmetric.com/details/67059325> <https://pubmed.ncbi.nlm.nih.gov/33886124/>
- Existential risks and the United Nations (Best Paper Award Risk Analysis 2020): <https://onlinelibrary.wiley.com/doi/abs/10.1111/risa.13566>
- Existential risks in general: <https://ojs.victoria.ac.nz/pq/article/view/5105>
- Nuclear war impacts: <https://pubmed.ncbi.nlm.nih.gov/19680311/>

Funding amount and breakdown

Professor Wilson seeks funding to support a Senior Research Fellow to undertake the literature reviews and manuscript preparation as outlined above.

- o 6-16 weeks fulltime equivalent funding, including overheads, at US\$2,000 per week = \$US12,000-32,000

- o Note: a basic paper could be researched and written in six weeks, however, for optimal robustness, technical precision, and scope; then 12-16 weeks funding is desired (based on a generally accepted realistic output of 2–4 high-quality first-authored academic papers per researcher per year).
- o Publication fee for open access journal US\$3,000
- o TOTAL: US\$15,000–35,000 (\$27,000 for 12 weeks funding)

Requested amount (USD)

27000

Alternatives to funding

- o A lower quality paper/blog could be produced without funding, but the evidence review would lack systematicity and the output would be technically inferior, risk multiple journal rejections, and lack robustness and audience reach.
- o The project idea may languish and not progress as Professor Wilson has capacity to collaborate/supervise, but is also committed to other non-long-termist projects.

Use for additional funding

Expand the project to include additional island or non-island locations, additional winter threats such as cosmic dust, improve review methodology conducting two independent person systematic reviews with reconciliation, wider dissemination, talks, conferences, lobby to raise awareness of government risk teams

LinkedIn/CV

<https://www.otago.ac.nz/wellington/departments/publichealth/staff/otago024455.html>

Grant duration

3-6 months

Location

An academic research project based in New Zealand, but with implications for global mitigation of 'winter' catastrophic and existential risk scenarios.

References

We still need to check with these people, but likely references are:

Professor Michael Baker (Department of Public Health), University of Otago Wellington, New Zealand; Email: michael.baker@otago.ac.nz

Professor Jonathan Boston (School of Government), Victoria University of Wellington, New Zealand; Email: Jonathan.Boston@vuw.ac.nz

Referral to other funders

Yes

How did you hear about EA Funds?

80,000 hours podcast

Time-sensitive grant

No

Public reporting

PUBLIC - I am okay with a public grant report. (You will be given the opportunity to request changes to the report before we publish it.)

Please confirm grant reporting

I understand that I will have to submit a report on the progress of my grant every 6 months for the grant's duration and a final report at the grant's end date. I agree to provide these reports when requested.

Please review your responses

I confirm I have carefully verified that all of the above information is correct. I understand I will not be able to edit my application after submission.

Submission ID

616ca91b85323a40332d0211

