

Request for Proposals

Innovation and Technology in Breast Cancer 2019

A research initiative from Breast Cancer Foundation NZ.

Overview

Breast Cancer Foundation NZ (BCFNZ) is committed to funding research with potential for significant impact on breast cancer detection, treatment and outcomes in New Zealand.

In this Request for Proposals (RFP), BCFNZ is seeking to proactively encourage research in areas aligned to our mission – ***Pushing for new frontiers in early detection, treatment and support*** – in the pursuit of our long-term, aspirational vision of ***Zero deaths from breast cancer***.

The World Health Organisation defines health technology as "the application of organized knowledge and skills in the form of devices, medicines, vaccines, procedures and systems developed to solve a health problem and improve quality of lives". We believe pushing for new frontiers will rely on harnessing new technologies, not only in traditional cancer disciplines of radiology, pathology, surgery and oncology, but in wider fields such as bioengineering, immunology, genetics, chemistry, informatics, automation, mathematics and human interface technology.

We therefore welcome proposals for research (including clinical trials) that exploits new and emerging technologies in the following areas aligned to the BCFNZ mission:

- Early detection and diagnosis
- Innovative and targeted treatments
- Extending survival for metastatic breast cancer patients
- Improving clinical practice and supportive care for better patient outcomes

See the section **Scope of the Research** for more discussion of technology and innovation, and more details of our interest in these research areas.

How to apply

Applicants should complete the application form available on the BCFNZ grants portal at <https://grants.breastcancerfoundation.org.nz/>

Applications close February 18, 2019

Assessment Process

1. Peer reviews

Each proposal will be reviewed by two to five experts. Overseas reviewers will be used where appropriate.

2. Applicant rebuttal

Reviews will be sent to applicants for rebuttal (with the identity of the reviewer removed). Applicants may wish to respond to specific reviewer comments or questions, or to provide clarification to allow an accurate assessment of the proposal.

3. Assessing Panel

BCFNZ will convene an assessing panel to review the applications, along with the peer reviews and rebuttals. Assessment will be against the criteria defined in the application guidelines.

4. MAC and Board Approval

Assessment panel recommendations will be submitted to BCFNZ's Medical Advisory Committee for approval, then to the Board of Trustees for confirmation of funding.

Funding Timeline

Publish RFP	December 14, 2018
Applications due	February 18, 2019
Peer review period	Late Feb to early April
Applicant rebuttal	Late March – mid-May
Meeting papers sent to Assessment Panel	Early May
Assessing meeting	Early June
Submit recommendation to MAC meeting	June 2019
Submit to Board of Trustees for approval	July 1, 2019
Applicants notified of outcome	By July 2, 2019

Background

Breast Cancer Foundation NZ's mission is *Pushing for new frontiers in early detection, treatment and support* in the pursuit of our long-term, aspirational vision of *Zero deaths from breast cancer*. The Foundation's core activities are awareness and education around early detection of breast cancer, funding scientific and clinical research, and supporting women with breast cancer. We also invest in medical equipment and training, and advocacy.

BCFNZ has been one of NZ's major funders of breast cancer research for the past 17 years. Funding of the breast cancer patient registers (which record detailed information about diagnosis, treatment and outcomes of patients with breast cancer within New Zealand) stretches back to the inception of the Auckland register in 2000.

Research Project Requirements

Research Objectives

The key objectives of this RFP are to:

- Invest in innovative, technology-focused research that will enable the kind of advances needed to achieve BCFNZ's mission.
- Fund research that, if successful, will have clear clinical potential in the short to medium term.
- Leverage expertise, experience and technologies across multiple scientific and clinical disciplines for newer, more efficient and more dynamic approaches to answering research questions.
- Support projects where there is a clear benefit or logic in this research being undertaken in New Zealand rather than elsewhere.

Scope of the research

Detection and Diagnosis

Examples of areas of interest include, but are not limited to: new detection and diagnostic modalities, imaging technologies, liquid biopsies, imaging-based biomarkers

Development or trial of innovative and/or targeted treatments

Examples of areas of interest include, but are not limited to: surgical advances (e.g. robotics, intraoperative imaging to determine tumour margins), genomic assays, gene editing, innovations in radiotherapy, immunotherapies, computer modelling to predict therapy effects, artificial intelligence in treatment guidelines and decision-making, new drug delivery technologies, bioengineering / synthetic biology; 3D technologies, implantables.

Extending survival for metastatic breast cancer patients

Examples of areas of interest include, but are not limited to: new approaches to surveillance for recurrence, treatment of oligometastases, immunotherapies, computer modelling to predict therapy effects, genomic assays.

Improving clinical practice and supportive care for better patient outcomes

Examples of areas of interest include, but are not limited to: new approaches to symptom management; implantables; wearables; e-engagement; virtual/augmented reality; testing of clinical hypotheses based on biomedical informatics.

Additional considerations:

We are interested to see projects in any of the above areas that also offer any of the following:

- **Disruptive technology** – with potential for radical change in patient pathways, resource implications, and treatment cost-effectiveness
- **Novel applications of existing technologies**
- **Innovative convergence of technologies and/or disciplines**, including computational biology, mathematics, oncology, surgery, pathology, epidemiology, physics, engineering, materials science, and chemistry.
- **Cross tumour-stream research** – we encourage the extension into breast cancer of technology-focused research or clinical initiatives that show significant promise in other tumour types. This maximises efficiencies / economies of existing study setup and overhead, encourages collaboration, builds on existing knowledge or results, and potentially adds value to other research projects in other tumour streams.
- **International collaborations** – we welcome applications for NZ participation in international or global studies, which may or may not have originated in NZ.

The areas outlined above are not exclusive, but give a good idea as to the specific interests of BCFNZ, and where we are actively looking to fund research projects.

Guidelines for research proposals

The research proposal should provide information on:

- How the research project represents innovation and technology in breast cancer.
- Excellence in scientific and/or clinical approach, properly scoped and clearly achievable within the specified timeframe.
- The impact of the proposed research on breast cancer in New Zealand and the timeframe in which that impact is likely to be achieved.
- The likely follow-on from this research. This might include a brief description and cost estimate for a next phase or further study by your team, or thoughts as to how other researchers or clinicians may build on the work you do in this proposed study.
- Where this study sits in the international body of research on the chosen subject: what similar or different approaches are being taken overseas; why this work should be done in New Zealand; why there is value in the BCFNZ funding your team to work in this area rather than relying on overseas findings.
- Where relevant, the potential for the study to address specific health needs of Māori and Pacific peoples.

- Potential for publication in international, peer-reviewed scientific or medical journals, and a plan for disseminating the results of the research within New Zealand.

Budget

The BCFNZ will commit **\$300,000** to this funding round – likely to be allocated across at least two projects for a term of up 12-24 months (this extension of our usual 12-month grant term is in recognition of the challenges that might be involved in new technologies). Applicants may submit proposals that include outlines and estimated budgets for future years, on the understanding that the BCFNZ may or may not choose to be involved in future funding.

Some projects may require significantly higher funding. Applicants are welcome to suggest other funders who might be interested to partner with BCFNZ in their proposed project; BCFNZ may choose to discuss that project with suggested or alternative funding partners. We will consult with you before initiating such a discussion.

Projects should start as soon as practicable after funding is confirmed.

Applicants should note that if competing proposals are equal in terms of merit (that is, a combination of their scientific or clinical value and their alignment with BCFNZ priorities), the value for money offered by each proposal will be a major consideration in the decision as to which proposal(s) will be funded.

Reporting

BCFNZ requires the following reporting:

- Six-monthly progress reports detailing progress and highlighting any issues or changes in timeline.
- A draft and final deliverable report detailing results, key findings and recommendations of the complete programme of research.
- We reserve the right to request a verbal presentation to our Medical Advisory Committee and / or our Board of Trustees.
- We may request a site visit for our executives and / or Medical Advisory Committee.

Further Information

For enquiries related to this Request for Proposals:

You are welcome to contact us with enquiries or to discuss the relevance to this RFP of proposed projects.

Please contact: Adèle Gautier, Research & Communications Manager, Breast Cancer Foundation NZ
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