



Australian Government

National Health and Medical Research Council

NHMRC TARGETED CALL FOR RESEARCH into debilitating symptom complexes attributed to ticks. Call-Specific Funding Rules

These Call-Specific Funding Rules must be read in conjunction with the *2018 Funding Rules for NHMRC's Targeted Calls for Research Program* and the *2018 NHMRC Funding Rules*. These documents will be available when the call opens on 30 May 2018.

1 Background and Justification for the Call

A number of Australians suffer from debilitating symptom complexes attributed to tick bites (DSCATT). These symptom complexes are not clearly defined and not formally reported on. Therefore reliable statistics on the incidence of DSCATT across Australia are limited (including any clusters) and the prevalence cannot be accurately estimated.¹

The manifestations of DSCATT are varied. Symptoms reported by patients range from a rash around the area of the tick bite (although not all patients have a recognised tick bite), through to chronic debilitating symptoms such as fatigue, arthritis, chronic pain, difficulty concentrating and headaches and ongoing psychological symptoms.²

While there is a lack of clarity as to the cause(s) of the symptom complexes, the Government recognises that many Australians are suffering from a condition/conditions that the Australian public do not feel have been adequately characterised or accepted. As a result, more work needs to be done to understand the problem and develop appropriate diagnostics and treatments for patients with these symptom complexes.

In 2016, the Senate Standing Committee on Community Affairs conducted an inquiry entitled "*Growing evidence of an emerging tick-borne disease that causes a Lyme-like illness for many Australian patients*". As part of this inquiry, the Committee canvassed the challenges and differing views around treating patients in the absence of an agreed cause of their symptoms.³ The Final Report to this inquiry outlined three areas of contention with regard to understanding DSCATT:

1. A lack of an agreed definition and understanding of what constitutes Lyme-like illness and how, if at all, it differs from Lyme disease.
2. Disagreement over laboratory testing protocols and results when looking for the pathogens responsible for Lyme disease.
3. The lack of conclusive, accepted scientific evidence linking tick bites in Australia to Lyme-like illness.⁴

The Senate Standing Committee tabled the final report of its inquiry on 30 November 2016, recommending the Government provide funding for research into tick-borne disease, in particular the causes, diagnosis and treatment

¹ [Senate Committee Interim Report May 2016, p. 15](#)

² [Senate Committee Interim Report, p. 21](#)

³ [Senate Committee Final Report November 2016, pp 31-42](#)

⁴ [Senate Committee Final Report November 2016, p.7](#)

(recommendations 2 and 4).⁵ The Government has accepted these recommendations⁶, and has committed funding for this Targeted Call for Research to be undertaken to increase knowledge in this area and support outcomes for patients.

This call for research aligns with the NHMRC's strategic objectives to:

- invest in high quality health and medical research and build research capability, supporting the best research and researchers
- support the translation of health and medical research into clinical practice, policy and health systems and the effective commercialisation of research discoveries,

as outlined in the [NHMRC Corporate Plan 2017-2018](#).

2 NHMRC Aims in implementing this call

Aims of implementing the call are to:

- better understand the nature, prevalence and causes of DSCATT and the way they impact on the physical, social and psychological health of patients;
- obtain evidence to guide the development of effective tools and procedures for diagnosis, treatment and symptom management.

3 Definition and scope

This TCR aims to support research that addresses the following question:

- What is the epidemiology of DSCATT and how can it be effectively diagnosed, managed and treated?

NHMRC is keen to see collaborative and multidisciplinary research to avoid duplication of effort and to develop synergies between researchers and clinicians looking at different aspects of causes, diagnosis, symptom management and treatment.

Areas of research may include:

- epidemiological studies of patients presenting with DSCATT, including
 - developing and validating clinical case definitions
 - determining the incidence, prevalence and geographical distribution of DSCATT, including correlation to potential vectors, where relevant
 - determining physical, psychological and social impacts of DSCATT on patients.
- clinical studies to:
 - establish clear and consistent clinical case definitions of DSCATT; this may require clinical studies of cases to describe the natural history of the illness and define the spectrum of symptoms
 - determine the causes and describe the pathophysiology of DSCATT
 - identify and assess the effectiveness of diagnostics
 - identify and assess the effectiveness of existing or new treatments and approaches to symptom management.

⁵ [Senate Committee Final Report November 2016, p.ix](#)

⁶ [Government response to Senate Committee Report, November 2017](#)

Research not supported under this call

This call for research does not support:

- Sociological research into attitudes of health service providers or perceived discrimination.
- Research focussed exclusively on the detection of potential pathogens in ticks or non-human hosts.
- Research focussed exclusively on *Borrelia burgdorferi*.
- Research based entirely overseas (out of Australia).

4 Objectives to be addressed in the Research Proposal

The information below is additional guidance on call-specific details to include in components of the Research Proposal. Refer to Section 3.3 B-GP Grant Proposal in the *Targeted Call for Research Scheme-Specific Advice and Instructions* for a full description of Grant Proposal requirements.

Applications are invited that address one or more of the following:

1. Develop a scientifically valid, evidence based understanding of the causes of DSCATT.
2. Identify evidence that will assist patients presenting with symptoms of DSCATT to be properly diagnosed so that their symptom complexes can be effectively managed and treated.
3. Better understand the prevalence and spectrum of symptoms of DSCATT to provide a basis for developing appropriate treatment, symptom management and prevention.

NHMRC requires community and consumer participation in the planning, conduct and reporting of the research in applications for this TCR. The applicant team will be expected to include in their application details on how they expect to achieve these requirements and this will be taken into account when reviewing the application. Further information on consumer and community engagement can be found at [Statement on Consumer and Community Participation in Health and Medical Research \(the Statement on Participation\)](#).

5 Expected outcomes

It is expected that either one or more of the following outcomes will be achieved by each of the funded grants:

1. The development of evidence based approaches to diagnosing DSCATT, including the development of a clinical case definition.
2. A better understanding of the physical, psychological and social aspects of patients' experiences of DSCATT.
3. Greater clarity over the role and effectiveness of diagnostics, approaches to symptom management and treatments for DSCATT.

6 Budget

A total of \$3 million has been allocated to support a small number of research projects identified via this call. Funding will be provided to the top ranked applications until the allocated funding is expended. The number of projects funded is therefore dependent on the size of the grants.

Funding will be available for any period of up to five years over the period 2019-2023. Applications must clearly justify the requested duration and budget and how it will support the proposed outcomes of the research. The Grant Review Panel will consider the information and may adjust the duration and budget to ensure the research can be achieved while ensuring value for money.

NHMRC reserves the right not to expend the amount allocated to this TCR if, in the assessment of the independent expert grant review panel, applications of sufficient quality are not received.

7 Critical Dates

Process	Date
Open for Submissions in RGMS	30 May 2018
Minimum data due in RGMS*	11 July 2018
Close of Submissions in RGMS	25 July 2018
Completion of Peer Review	Late 2018

*Minimum data must be entered into NHMRC's Research Grants Management System (RGMS) by **5.00 pm** AEST on the specified due date to allow the NHMRC to start sourcing suitable assessors. Applications that fail to satisfy this requirement will not be accepted. Applicants are also reminded to complete the recommended fields with correct information. Using placeholder text such as "text", "synopsis" or "xx" etc. is not acceptable as minimum data.

Minimum data for NHMRC TCRs consist of the following:

- General – Application Information: You must complete fields for Administering Institution, Application Title, Synopsis, Aboriginal/Torres Strait Islander Research (yes/no) and Consent to provide information to International Assessors
- A-RC Research Classification
- A-RT Research Team and Commitment (core team with other members listed as TBA if not yet known)

Please note: Failure to meet this deadline will result in the application not proceeding (see section 10.7 of the *2018 NHMRC Funding Rules* for further information).

Research Administration Officers (RAOs) are not required to certify applications for the purpose of minimum data; applications should only be certified once complete and ready for submission (see section 10.4 of the *2018 NHMRC Funding Rules* and section 6 of the *2018 Advice and Instructions to Applicants*).

Completed applications must be submitted to the NHMRC in RGMS by **5.00 pm** AEST on the specified closing date. Late applications will not be accepted.

8 Assessment of Applications

Applications will be assessed by peer review against the:

1. Scientific quality and relevance to successfully delivering the expected outcomes of the TCR (60%), and
2. Record of achievement of the team in areas/disciplines relevant to this TCR – relative to opportunity (40%).

Assessment of applications will include the following considerations:

- Relevance of the scientific approach to the scope, aims and objective of the call.
- Incorporation of patient/consumer involvement in the proposed research.
- Strengths and weaknesses of the research design.
- Appropriateness and robustness of the technical and methodological aspects.
- Suitability and calibre of the team to ensure delivery of the TCR, relative to opportunity (outlined in the *2018 NHMRC Funding Rules* at section 6.2) and recognising applicant's industry relevant expertise (outlined in the *2018 NHMRC Funding Rules* at section 6.1) and relevant career disruptions (outlined in the *2018 NHMRC Funding rules* at section 6.2.1).

- Likelihood of successfully completing the proposed research.

Further information on the scoring of applications against the category descriptors is available at [Attachment A](#).

9 Additional Reporting Requirements

Researchers will be required to submit an annual progress report outlining the achievements and progress against the aims of the initiative, which NHMRC may publish on its website.

This requirement is in addition to the general requirements set out in the [NHMRC Funding Agreement](#), section 12 of the *2018 NHMRC Funding Rules*, and on the [NHMRC website](#).

Attachment A: NHMRC Targeted Call for Research Category Descriptors

The following category descriptors are used to assess an application. Categories 1-3 are considered non-competitive and will not be funded ('unfundable'). Categories 4-7 are potentially fundable, subject to the availability of resources.

Category	<i>Scientific Quality and Relevance to Successfully Delivering the Expected Outcomes of the TCR (60%)</i>	<i>Record of Achievement of the Team in Areas/Disciplines Relevant to this TCR – relative to opportunity (40%)</i>
<p>7 <i>Outstanding</i></p>	<p>The research proposal:</p> <ul style="list-style-type: none"> • is highly relevant to the call • is without question, highly feasible and will successfully achieve the expected outcomes of the call • has objectives that are well-defined, highly coherent and strongly developed • has a near flawless design • has very comprehensive strategies for performance measures/milestones and how grant funds and other resources will be shared, deployed, and redeployed • will provide very high quality evidence that addresses the expected outcomes of the call • is highly likely to result in improved outcomes for patients • is highly competitive with the best comparable research proposals internationally • is highly likely to be translated into or inform changes in policy or health practice • will almost certainly result in highly influential publications • is highly integrated with consumers in every aspect of the project 	<p>The applicant team:</p> <ul style="list-style-type: none"> • has a track record that specifically targets the proposed research both in terms of depth and breadth • has all the required skills and expertise to successfully achieve the expected outcomes • has a multi-site national team, with an outstanding nation-wide approach that is collaborative and multidisciplinary • is highly networked with international alliances to exchange knowledge and skills
<p>6 <i>Excellent</i></p>	<p>The research proposal:</p> <ul style="list-style-type: none"> • is very relevant to the call • is highly feasible and is highly likely to achieve the expected outcomes of the call • has objectives that are clear, logical and well developed • is excellent in design • has comprehensive strategies for performance measures/milestones and how grant funds and other resources will be shared, deployed, and redeployed • will provide high quality evidence that addresses the expected outcomes of the TCR 	<p>The applicant team:</p> <ul style="list-style-type: none"> • has a track record that is highly relevant to the proposed research in terms of depth and breadth • has all the required skills and expertise to successfully achieve the expected outcomes • has a multi-site national team, with an excellent nation-wide approach that is collaborative and multidisciplinary • is well networked with international alliances to exchange knowledge and skills

	<ul style="list-style-type: none"> • is very likely to result in improved outcomes for patients • is very likely to be competitive with strong comparable research proposals internationally • is very likely to be translated into or inform changes in policy or health practice • is very likely to result in highly influential publications • is well integrated with consumers in most aspects of the project 	
<p>5 <i>Very Good</i></p>	<p>The research proposal:</p> <ul style="list-style-type: none"> • is relevant to the call • is likely to be feasible and is likely to achieve the expected outcomes of the call • has objectives that are clear and logical • raises a few minor concerns with respect to the study design • has clear strategies for performance measures/milestones and how grant funds and other resources will be shared, deployed, and redeployed • will provide some high quality evidence that addresses the expected outcomes of the TCR • is likely to result in improved outcomes for patients • may not be highly competitive with comparable research proposals internationally • may be translated into changes in or inform policy or health practice • may result in several influential publications • is integrated with consumers in some aspects of the project 	<p>The applicant team:</p> <ul style="list-style-type: none"> • has a track record that is very relevant to the proposed research in terms of depth and breadth • has most of the required skills and expertise to successfully achieve the expected outcomes • has a multi-site national team, with a very good nation-wide approach that is collaborative and multidisciplinary • is networked with international alliances to exchange knowledge and skills
<p>4 <i>Good</i></p>	<p>The research proposal:</p> <ul style="list-style-type: none"> • is somewhat relevant to the call • raises some concerns regarding feasibility and likelihood to achieve the expected outcomes of the call • has objectives that are clear • raises some concerns regarding the study design • has some strategies for performance measures/milestones and how grant funds and other resources will be shared, deployed, and redeployed 	<p>The applicant team:</p> <ul style="list-style-type: none"> • has a track record that is consistent with the proposed research in terms of depth and breadth • has some of the required skills and expertise to successfully achieve the expected outcomes • has a multi-site national team, with a nation-wide approach that is collaborative and multidisciplinary • is somewhat networked with international alliances to exchange knowledge and skills

	<ul style="list-style-type: none"> • will provide some evidence that addresses the expected outcomes of the TCR • may result in improved outcomes for patients • is not likely to be competitive with similar research proposals internationally • may be translated into changes in or inform policy or health practice • may result in some strong or influential publications • is somewhat integrated with consumers in minor aspects of the project 	
<p>3 <i>Marginal</i></p>	<p>The research proposal:</p> <ul style="list-style-type: none"> • is not particularly relevant to the call • raises several concerns regarding feasibility and likelihood to achieve the expected outcomes of the call • is somewhat unclear in its' objectives • raises several concerns regarding the study design • has superficial consideration of strategies for performance measures/milestones and how grant funds and other resources will be shared, deployed, and redeployed • may provide limited evidence that addresses the expected outcomes of the TCR • is unlikely to result in improved outcomes for patients • is not competitive nationally or internationally • unlikely to be translated into changes in, or inform policy or health practice • may result in some modestly influential publications • is marginally integrated with consumers in the project 	<p>The applicant team:</p> <ul style="list-style-type: none"> • have limited track records in the field of the proposed research • has minimal skills and expertise required to successfully achieve the expected outcomes • does not have a multi-site national team, or a nation-wide approach that is collaborative and multidisciplinary • is marginally networked with international alliances to exchange knowledge and skills
<p>2 <i>Unsatisfactory</i></p>	<p>The research proposal:</p> <ul style="list-style-type: none"> • raises several major concerns regarding feasibility and likelihood to achieve the expected outcomes of the call • is unclear in its' objectives • raises several major concerns regarding the study design • has no shared budget, some evidence of shared resources, no consideration of how grant funds and other resources will be shared, deployed, and redeployed • is poorly relevant to the call 	<p>The applicant team:</p> <ul style="list-style-type: none"> • have track records which do not relate well to the proposed research • is deficient in many of the required skills and expertise to successfully achieve the expected outcomes • does not have a multi-site national team, or a nation-wide approach that is collaborative and multidisciplinary • is poorly networked with international alliances to exchange knowledge and skills

	<ul style="list-style-type: none"> • is not competitive nationally or internationally • unlikely to provide evidence that addresses the expected outcomes of the TCR • is very unlikely to result in improved outcomes for patients • very unlikely to be translated into changes in or inform policy or health practice • unlikely to result in influential publications • is poorly integrated with consumers in the project 	
<p>1 <i>Poor</i></p>	<p>The research proposal:</p> <ul style="list-style-type: none"> • contains a research plan that does not seem to be feasible and is unlikely to be successfully completed • is very unclear in its' objectives. • contains a study design that is not adequate • has no shared budget, no evidence of shared resources, no consideration of how grant funds and other resources will be shared, deployed, and redeployed • is not relevant to the call • is not competitive nationally or internationally • very unlikely to provide evidence that addresses the expected outcomes of the TCR • is highly unlikely to result in improved outcomes for patients • no potential to be translated into changes in or inform policy or health practice • very unlikely to result in influential publications • does not involve consumers 	<p>The applicant team:</p> <ul style="list-style-type: none"> • do not have relevant track records in the field of the proposed research • is deficient in most of the required skills and expertise to successfully achieve the expected outcomes • does not have a multi-site national team, or nation-wide approach that is collaborative and multidisciplinary • is not networked with international alliances