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**NCI**  
AUSTRALIA

## **ANU Merit Allocation Scheme 2020 Call for Applications**

### **Information for Applicants**

Revision 17 Sept 2019

#### **Key Dates**

<b>30 September 2019</b>	Applications open
<b>11 November 2019</b>	Applications close (5:00pm AEDT)
<b>10, 11, 12 or 13 December 2019 (TBC)</b>	Allocation Committee meeting
<b>18 December 2019</b>	Allocations announced

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## Introduction

The ANU Merit Allocation Scheme (ANUMAS) 2020 Call for Applications will be open from Monday 30 September 2019 to Monday 11 November 2019. Applications close at 5:00pm AEDT on Monday 11 November.

All applicants (Lead CIs) and members of their research groups should read the following application guidelines and reference information in full before preparing an application.

This document may be updated during the 2020 Call for Applications to clarify rules and processes as determined by the Committee Chair, NCI or the ANU Research Services Division.

Please see the [FAQ page](#) if you have queries regarding the application process. If you have further questions about the ANUMAS 2020 Call for Applications, they can be submitted by email to [anumas@nci.org.au](mailto:anumas@nci.org.au). Emails to this address will create an issue ticket in the NCI user support system.

## Important Dates – ANUMAS 2020 Call for Applications

Key dates	ANUMAS Milestone
30 Sept 2019	Applications open
11 Nov 2019	Applications close (5:00pm AEDT)
9 Dec 2019	Merit Assessments close
10, 11, 12 or 13 Dec 2019 (TBC)	Allocation Committee meeting
18 Dec 2019	Outcomes announced

The ANUMAS 2020 Call for Applications is expected to be highly competitive.

## Application Categories

ANUMAS applications are accepted in three categories: Open, Early Career Researcher, and Start Up.

<b>Open</b>	Unrestricted. Applicants are expected to demonstrate successful utilisation of large-scale HPC and have a track record of demonstrable research outcomes and independent funding.
<b>Early Career Researcher (ECR)</b>	The ECR category provides an opportunity for researchers who have been awarded a PhD within the last five (5) years. Early Career Researcher applications are highly competitive. Applicants are expected to demonstrate a record of independent research funding, such as an ARC DECRA, NHMRC CDA, or similar award. The ECR allocation is 250 KSU/year. The Committee has discretion to allocate less than 250 KSU in special circumstances
<b>Start Up</b>	ANU Start Up allocations support new projects or continuing projects at the level of up to 100 KSU per year.

## Special Consideration

A limited number of special allocations will be made available to other applicants who may otherwise not be competitive in the ANUMAS, for example, an individual who has returned to a research role following a significant career interruption.

Eligibility criteria for each of these categories are listed in the section Eligibility and Project Roles.

## Application Instructions

***The ANUMAS application process is slightly different for new projects (and applicants) versus established projects. Please read the following sections carefully.***

### STEP 1

All new applicants need to register for an NCI user account before starting an application at <https://my.nci.org.au>

All applicants should update their personal and career profiles at <https://my.nci.org.au>

### STEP 2 New Projects

1. Start the application process – use the "Propose a project" link on your <https://my.nci.org.au> home page to submit a brief proposal and register the project for ANUMAS. Select "ANU" or "ANU-Startup" as the resourcing scheme. These steps will register your new project.
2. For Open and ECR applications, complete and submit the merit proposal for your project at <https://anumas.nci.org.au>. ***The full merit proposal form must be completed to finalise an Open or ECR application. ANU Start Up applicants should only use <https://my.nci.org.au> and/or email to [anumas@nci.org.au](mailto:anumas@nci.org.au) as described in a following section.***

Note that the same login credentials are used for both [my.nci.org.au](https://my.nci.org.au) and [anumas.nci.org.au](https://anumas.nci.org.au).

### STEP 2 Existing Projects – Open and ECR

Applicants who wish to resource an existing project in the Open or ECR category should complete the full merit application for the project at <https://anumas.nci.org.au>.

If you currently lead a project created under a Partner scheme that has not been previously considered for ANUMAS, the initial registration steps (via <https://my.nci.org.au>) are not required.

### STEP 2 Existing Projects – Start Up

Applicants who wish to apply for ANU Start Up resources for an existing project should:

1. Send email to [anumas@nci.org.au](mailto:anumas@nci.org.au) requesting continuing ANU Start Up resources for your project. Please include the text "ANU Allocation Request 2020" in the subject line of the email. The message body must include the project code and number of Gadi KSU/year requested.

A new project proposal is not required for an existing project.

The ANUMAS Allocation Committee will assess complete applications only. The applicant (Lead CI) is responsible for completion of the project registration (for new projects) and staff profile updates at <https://my.nci.org.au>, and completion of the full ANUMAS proposal web form at <https://anumas.nci.org.au>.

In cases where an Open or ECR applicant completes only step 1 of the process (registration at <https://my.nci.org.au>), the application is considered incomplete and noncompliant. Such applications will be rejected by the Secretariat on administrative grounds and will not be assessed.

**When to use <https://my.nci.org.au>**

- To register for a new user account
- To reset your password
- To update personal details
- To update your research track record
- To register a new project for ANUMAS
- To approve requests to join a project (Lead CI or Delegate Lead CI only)
- To remove a member of the project team (Lead CI or Delegate Lead CI only)

**When to use <https://anumas.nci.org.au>**

- To complete your ANUMAS Open or ECR merit proposal
- To submit your ANUMAS proposal
- To view your ANUMAS outcome (Lead CI only)

**When to email [anumas@nci.org.au](mailto:anumas@nci.org.au)**

- To request an ANU Start Up allocation, 100 KSU/year or less, for an existing project (See instructions above.)
- To ask a question about ANUMAS or request help on your application

**Application Deadline**

The application deadline for the ANUMAS 2020 call is **17:00 (5pm) AEDT Monday 11 November 2019**.

**Getting Help**

Read supporting documentation including FAQs if you have questions. Contact [anumas@nci.org.au](mailto:anumas@nci.org.au) if you require assistance with your application.

**Proposal Length**

The length and rigour of a proposal should be proportional to the requested allocation. Guidelines for the length of proposals are listed in the table below. Note that 500 words is approximately one page of single-spaced, 12-point type, with 2 cm margins.

<b>Compute Request (KSU)</b>	<b>Recommended Proposal Length (words)</b>
<b>Greater than 4000</b>	3000
<b>1000 - 4000</b>	2000
<b>250 - 1000</b>	1000

**Acknowledging ANUMAS and the National Facilities**

A condition of accepting an ANUMAS allocation is that applicants acknowledge both ANUMAS and NCI in all publications and presentations of the associated work. The following is a standard acknowledgement template:

*This work was supported by computational resources provided by the Australian Government through the National Computational Infrastructure (NCI) facility under the ANU Merit Allocation Scheme.*

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## Guidance for Applicants

The recommendations below are provided as general advice to help you improve your ANUMAS application and chances for success. These recommendations address questions received and the experiences of applicants, the Secretariat (NCI) and the Allocation Committee in previous ANUMAS calls.

### All Applicants

- Submit your application before the final submission deadline. Late submissions will not be accepted.
- Read all ANUMAS announcements and supporting documentation in full. Watch for updates from the ANUMAS Secretariat throughout the Call for Applications period.
- You must provide the year of award for your highest degree in your applicant profile.
- Ensure that personal profiles and research track records of the Lead CI and all CIs on your application are fully up to date.
- Respect the length guidelines (for word count and degree of detail) for each question in the application form.
- Provide a comprehensive justification of your request for HPC resources.
- Successful proposals will demonstrate an ability to use the HPC facilities at scale, and leverage efficient multi-CPU jobs, data interconnects and high-performance storage.
- Cite publications that acknowledge ANUMAS and the participating HPC facilities.
- Cite only those research grants that are directly attributed to the Lead CI or CIs on the application. Citing a grant on which the Lead CI or CI is not directly named is not acceptable, and will disqualify the application.

### New Applicants - New Projects

- Describe your previous experiences with HPC in as much detail as possible. Assessors expect to see:
  - a summary of your previous HPC experience,
  - systems and facilities used,
  - experience with other HPC resourcing/allocation schemes, e.g. facility Startup or Partner schemes,
  - details of application codes, algorithms and workflows.
- Describe your experiences using a Startup or Partner allocation on the facilities to develop HPC expertise and capability.
- Align your resource request with the scope of work and your track record of HPC experience. An application with very large requests, for example 5000 KSU/year, should clearly demonstrate sustained, expert utilisation of HPC at scale.

## Returning Applicants - Existing Projects

- Assessors will expect to see a detailed justification of your resource request. Requests for increased allocations in 2020 should provide as much detail as possible justifying the additional resources.
- Update all scientific and technical components of the proposal to reflect the current scope of work and methods. The Committee will recognise cases where proposal components are copied and pasted verbatim from previous applications.
- Provide compelling evidence for code performance and scaling in your application.
- If your project has used less than 60% of your 2019 allocation as of 2019 Q3 (pro rata), you should provide an explanation for under-utilisation of your current allocation. An application that does not address under-utilisation of a current allocation are unlikely to be awarded its full request.
- Provide a status update on your experiences and outcomes in 2019 (to date). Describe notable outcomes and changes to the project.
- If your 2019 ANUMAS application was not successful, you are welcome to apply again. A demonstration of lessons learned and advancement of your experience and capability will work in your favour.

## Eligibility Criteria

In accordance with guidelines for access to Commonwealth-funded research infrastructure and relevant Australian Government legislation, Chief Investigators (CI) and Lead Chief Investigators (Lead CI) of ANUMAS projects must hold at least a 0.2 FTE research position for the period covered by the application at the ANU. If an applicant (Lead CI) holds a fixed duration contract for at least 0.2 FTE for the calendar year 2020 he/she is eligible to apply to ANUMAS.

Whilst a person holding a Postdoctoral appointment at the ANU is eligible to apply as a Lead CI, a postdoctoral fellow applying in the Open category is expected to demonstrate competitiveness with more experienced, senior researchers in his/her field. The Committee recommends that researchers in the early phase of a postdoctoral fellowship first consider applying in the Early Career Researcher category.

A person undertaking a higher degree by research is not eligible to be a Chief Investigator or Lead Chief Investigator on a ANUMAS proposal.

***An individual may be named as a Chief Investigator or Lead Chief investigator on only one ANUMAS 2020 application.***

Definitions and responsibilities for Lead Chief Investigator and Chief Investigator roles are listed in a following section – Project Roles and Responsibilities.

## Early Career Researcher

The Early Career Researcher (ECR) category provides an opportunity for researchers who have been awarded a PhD within the last five (5) years. Early Career Researcher applications are highly competitive.

Early Career Researcher conditions:

- The applicant (Lead CI) must have been awarded a PhD within the previous five (5) years.
- The applicant should not be nominated as a Researcher, CI or Lead CI on another ANUMAS application.

- The body of an ECR proposal should be no longer than 1000 words, or approximately two pages in length.
- ***The Early Career Researcher award is 250 KSU/year.***
- An individual may apply for Early Career Researcher allocation for a maximum of three (3) consecutive years.

### **Special Consideration**

A limited number of special allocations will be made available to other applicants who may otherwise not be competitive in the ANUMAS, for example, an individual who has returned to a research role following a significant career interruption.

Special Consideration conditions:

- The applicant (Lead CI) must have been awarded a PhD within the previous nine (9) years.
- The applicant should not be nominated as a Researcher, CI or Lead CI on another ANUMAS application.
- The body of a Special Consideration proposal should be no longer than 1000 words, or approximately two pages in length.
- ***The Special Consideration award is 250 KSU/year.***
- An individual may apply for Special Consideration allocation for a maximum of three (3) consecutive years.

### **Project Roles and Responsibilities**

Lead Chief Investigator

- Leads and manages the project research team.
- Approves or rejects project team membership requests, and removes persons who are no longer active participants from the project.
- Provides a track record of research output and funding support in the ANUMAS application.
- Approves and submits the final ANUMAS application for the project.
- Acts as the official point of contact between the project, the ANUMAS Secretariat and the Allocation Committee.

Chief Investigator:

- Supports the Lead Chief Investigator in preparing the ANUMAS application and managing the project.
- Provides a track record of research output and funding support for the ANUMAS application.
- Can be promoted to Delegate Lead CI role in cases where the Lead CI wishes to delegate project management responsibilities.

Delegate Lead Chief Investigator

- Appointed by Lead Chief Investigator to actively manage a project and ANUMAS application.
- Responsibilities are those of the Lead Chief Investigator.
- Expectation that the Lead Chief Investigator will appoint a Chief Investigator as Delegate.
- Research track record is not included for consideration in the ANUMAS application.

Researcher



- Member of the project research team.
- Research track record is not included for consideration in the ANUMAS application.

### **Assessment Criteria and Scoring**

ANUMAS applications will be scored on the following criteria.

#### **Project**

- Quality and innovation
- Significance of the research
- Originality and innovative nature of the computational framework
- Advancement of knowledge through the goals of the proposed research
- Potential for the research to contribute to [Australian Science and Research Priorities](#)

#### **Investigators**

- Research record and performance relative to opportunity (publications, research funding, recognition and esteem metrics)

#### **Feasibility**

- Adequacy of the time commitment of investigators to undertake the research and utilise the resources successfully
- Capacity to realise the goals of the project within the resources request
- Appropriate track record in the use of high-performance computing systems, relative to the scale of the resources requested
- Suitability of the system to support the research, and an appropriate and efficient use of the system

#### **Benefit and impact**

- Ability of the project to generate impactful outcomes and produce innovative economic, environmental and social benefits to the ANU, Australia, and the international community.

### **Application, Assessment and Allocation Process**

The ANUMAS allocation process comprises the following stages:

1. Call for applications announced (Secretariat)
2. Applications accepted (Secretariat)
3. Eligibility and compliance verification (Secretariat)
4. Technical assessment (by nominated Facilities and Secretariat)
5. Merit assessment (Committee)
6. Allocation Committee meeting (Committee, supported by Secretariat and Facilities)
7. Notification of outcomes (Secretariat).

The Secretariat will review all applications for compliance as soon as possible following the application deadline. Potentially non-compliant applications will be referred to the Committee Chair for a final decision. The Secretariat will notify the Lead CIs of all applications confirmed as non-compliant within seven (7) days of the application deadline.

NCI will assess each application for suitability/fit for its HPC systems in the technical assessment. NCI may contact an applicant for further information as part of the technical assessment. Technical assessments are provided by NCI as advice to the Allocation Committee. The Committee may also recommend that an applicant consult a nominated facility for further technical advice during merit assessment or after an allocation is awarded.

### **Assessment and Allocation Protocol**

Assessment of proposals will be based on a combination of technical and scientific merit (see selection criteria section) based on material provided in the proposal. All applicants are expected to provide a detailed justification of the resources requested, and are expected to demonstrate the capacity to utilise the requested HPC resources effectively. All requests must be proportional to the scientific merit of the proposal. The ANUMAS Committee reserves the right to allocate all or part of the resources available, and all or part of any specific request.

Assessment and allocation decisions are made by the Allocation Committee only. The ANUMAS Secretariat and HPC facilities provide advice or supporting information to the Allocation Committee but are not otherwise involved in determining allocations.

Resource requests for ANUMAS are not subject to a maximum limit (cap). Unbounded resource requests allow researchers to prepare a single proposal that can be considered by multiple allocation schemes, and which reflects their actual demand for HPC resources. A request for more than 4000 KSU per year would normally be associated with a team of experienced researchers who clearly demonstrate a track record of efficient and productive use of HPC resources. Note that any proposal deemed not to have fully justified the resources requested will be rejected by the Committee.

### **Quantised Allocations**

Computing resources will be allocated in specific increments (quanta) as indicated on the ANUMAS application form. Allocations are quantised to simplify the work of the allocation committee.

### **Administrative Rejoinders**

A Lead Chief Investigator who submits an ANUMAS application more than five (5) days in advance of the submission deadline will have an opportunity to address any completeness and compliance issues with the application through an administrative rejoinder process.

Lead Chief Investigators on applications submitted before 7 November 2019 which are incomplete or otherwise non-compliant with ANUMAS guidelines will be contacted by the Secretariat and given five (5) days to provide missing information, update details or otherwise bring their applications into compliance prior to the final deadline.

The administrative rejoinder process is intended to minimise cases of outright rejection due to completeness and compliance issues. The ANUMAS Secretariat manages the administrative rejoinder process, with oversight from the ANUMAS Committee Chair. *The process does not provide feedback or advice on scientific or technical components of an application.*

***The administrative rejoinder process is not available for applications submitted on or after 7 November 2019. All applicants are strongly encouraged to submit applications as soon as possible during the call for applications.***

**ANUMAS 2020 Allocation Committee**

Chair – Mathematics and Computer Science	Markus Hegland
Deputy Chair – Biological Sciences	Allen Rodrigo
Researcher – Physical Sciences	Geoff Bicknell
Researcher – Earth Sciences	Andy Hogg
Researcher Computer Sciences	Weifa Liang
Researcher - Chemistry	Megan O'Mara
Researcher – Computational Social Sciences	Robert Ackland
Researcher - Bioinformatics	Gavin Huttley
ANU - Director Research Services	Douglas Robertson
NCI Advisor (appointed by Director NCI)	Ben Evans

**Appeal Process**

All decisions of the ANUMAS Allocation Committee are final. *Appeals will be considered only against administrative or procedural issues and **not against decisions of the Committee or against assessor ratings and comments**, in a manner consistent with the practices of the Australian Research Council.*

The addition of an administrative rejoinder phase to the ANUMAS process for the 2020 call is expected to give applicants a timely opportunity to correct errors or address non-compliance issues in their applications, and submit their application for consideration, instead of being rejected outright. The administrative rejoinder process is expected to reduce the number of administrative appeals in the ANUMAS process.

**Conditions of Use****Autonomous Sanctions and the Defence Trade Controls Act**

All Lead Chief Investigators on ANUMAS applications are required to certify (via a question on the ANUMAS application form) compliance of their project with recent Commonwealth legislation, in particular, the Autonomous Sanctions Act (2011, Cth) and the Defence Trade Controls Act (2012, Cth). These articles of legislation impose additional requirements for supporting documentation and certification of project researchers in some circumstances. Applicants should review the current conditions of use on the NCI website:

- <https://nci.org.au/users/access-and-use-policies>

Compliance with Commonwealth legislation is managed through the ANU Research Services Division. Contact the ANU Research Services Division if you have specific questions about Autonomous Sanctions or DTCA compliance.

## Email Addresses

To ensure compliance with relevant Australian Government legislation, all researchers named in ANUMAS applications must register and use an official institutional email address for all correspondence. Chief Investigators and Researchers who currently use a non-institutional email address (for example, [@gmail.com](mailto:example@gmail.com) or [@yahoo.com](mailto:example@yahoo.com)) must register an official institutional email address. It is the responsibility of the project Lead Chief Investigator to ensure that all project staff register and use official email addresses. The use of the official ANU email address also provides some protections under the DTCA.

## Proposal Format

Guidelines for proposal formatting follow general ARC conventions. Use plain English and comply with the proposal format and submission requirements. Use Australian English spelling.

All pages of additional text (uploaded in PDF form) must be as follows:

- Black type, or occasional coloured type for highlighting purposes
- Single column
- White A4 size paper with at least 0.5 cm margin on each side, top and bottom
- Text must be size 12 point Times New Roman or an equivalent size before converting to PDF format and must be legible to assessors. Otherwise, a highly legible font type must be used: Arial, Courier, Palatine and Helvetica subject to them being an equivalent size to 12 point Times New Roman. Variants such as mathematical typesetting languages may also be used.
- References only can be in 10 point Times New Roman or equivalent
- Adhere strictly to page limits designated for each part of the proposal.
- Applicants should note that colour graphs, colour photographs, detailed graphics, and grey scale objects may be reproduced in black and white.
- Additional text uploaded as PDF may appear slightly reduced in size due to ANUMAS formatting of attachments. Additional text uploaded in PDF form should be directly generated rather than scanned to maximise the quality of reproduction.
- The ANUMAS Secretariat reserves the right to seek an original electronic copy of the Proposal to determine that the text meets these requirements.

## Frequently Asked Questions

### General

I have a question about ANUMAS 2020. How do I get more information?

*Email [anumas@nci.org.au](mailto:anumas@nci.org.au) if you have any questions about ANUMAS. This email will reach the Secretariat, who will contact you with further information.*

What is the deadline for application?

*The application deadline is 5:00 pm AEDT Monday 11 November 2019.*

Can I request an exception to the application deadline if it overlaps with a travel or work commitment, such as an overseas conference?

*Unfortunately, no. If you have commitments at or near the deadline you are advised to submit your application as soon as possible during the call.*

If I have a draft application in the ANUMAS system at the time of the submission deadline will I be allowed extra time to finish and submit my application?

*No. Applications cannot be submitted after the deadline.*

Can I resubmit my application from the previous ANUMAS call (2019) with minor changes and updates?

*Yes. The online forms system will pre-populate an application with content from the 2019 call if it is available. Note, however, that all CI's on your project should update their career profiles and research track records to reflect recent developments or changes. Resubmission of an application as-is from the previous call without updates to reflect progress is not recommended.*

The outcome of my ARC or NHMRC grant proposal is expected to be announced during the ANUMAS call. How do I include this outcome in my ANUMAS application?

*Research funding outcomes announced in the September-December time frame are relevant to your application. A grant outcome can be submitted as an addendum by sending an email to [anumas@nci.org.au](mailto:anumas@nci.org.au), including the text "ANUMAS 2020 APPLICATION ADDENDUM" in the email subject line.*

What period is covered by the "previous five (5) years" requirement for publications and grants?

*The "previous five years" period extends from 2014 to the present.*

In my application, can I cite a grant which was led by my supervisor or another person in my research group?

*Unfortunately, no. Any grant references provided in an application should list the Lead CI from the application as a primary recipient of the grant.*

Is it possible to transfer my project to another Lead Chief Investigator?

*Yes. The recommended process is:*

- 1. The new Lead CI should register and join the project using the <https://my.nci.org.au> system.*
- 2. If you (as current Lead CI) wish to leave the project, you should promote another project member to the Delegate Lead CI role, and then leave the project. Leaving the project will elevate the Delegate Lead CI to the (full) Lead CI role.*
- 3. If you (current Lead CI) wish to remain in the project in a (regular) CI or Researcher role then*

*submit an NCI support request to change your project role. The support request can be submitted by email to [help@nci.org.au](mailto:help@nci.org.au). Please provide the project code, your request and the new Lead CI's information in the support request.*

I'd like to include as many researchers as possible on my project to demonstrate its significance and impact. Can I include former members of my group with whom I still collaborate?

*A Lead Chief Investigator should update his/her project memberships to include personnel who will actively contribute to the project during the next calendar year. Inclusion of former group members is not recommended, and could inadvertently breach eligibility rules, specifically that **an investigator can be named as a Lead CI or (regular) CI on one project only.***

I have drafted a new project proposal for the ANUMAS scheme (proposal-XXXXXX) using the <https://my.nci.org.au> system and want to add people to this project proposal. How can I do that?

*Anyone who wants to join the new project proposal (proposal-XXXXXX) should visit <https://my.nci.org.au/mancini/project/proposal-XXXXXX/join> to request the project membership. Then the Lead CI of this proposed project will be able to approve the membership request using the <https://my.nci.org.au> system.*

Does the word length limit for the proposal apply to both the proposal body and references?

*The recommended length is for the body of the proposal. ANUMAS recommendations are rough guidelines, which are intended to capture appropriate levels of detail and ensure that larger resource requests have sufficient scientific and technical justification. The online form does not enforce a word or size limit.*

Can I request fewer than 100 KSU per year in the 2020 ANUMAS call?

*Yes. Proposals for new projects requiring 100 KSU or less per year can be submitted through the ANU-NCI partner proposal system – <https://my.nci.org.au> ; the applicant should select "ANU-Startup" as the resource scheme.*

*A new proposal is not required for existing projects that request 100 KSU or less per year. With an existing project, the compute request is made via email to [anumas@nci.org.au](mailto:anumas@nci.org.au) ; see the "How to Apply" section in this document for details.*

I am a research student, and my supervisor has asked me to complete the ANUMAS application for our research group. What do I do?

*Your supervisor needs to change your project role to Delegate Lead CI to enable you to access the online ANUMAS application form. Your supervisor can do this through the NCI registration system (<https://my.nci.org.au>) or by emailing NCI support at [help@nci.org.au](mailto:help@nci.org.au). Note that as Delegate Lead CI you become the responsible agent for the application. You will need to keep your supervisor informed through the call for applications period.*

Can I attach my CV instead of entering publication and grant information on the application form?

*Unfortunately, it is not possible to attach a CV to the application. Please enter relevant publication and grant information on the online forms.*

Why do I need to update memberships of my ANUMAS project?

*The members of your project should include only those who actively contribute to the project. Prior members of your research team who no longer contribute should be removed from your project. Note that removing former team members is also required under Conditions of Use for NCI and other HPC facilities.*

My project requires HPC resources for two types of work – (1) research and development, and (2) ongoing operations, for example, a genome sequencing service. Can I use ANUMAS to obtain resources for both types of work?

*You may apply to ANUMAS for both types of resources, however, the assessment criteria favour proposals for research and development. If you need to support large operational workloads you should contact the ANU Allocation Committee for advice – [anumas@nci.org.au](mailto:anumas@nci.org.au) .*

The ANUMAS form provides for only 15 research grant entries. How can I provide details for more than 15 grants?

*Use the 15 available slots in the form for your most recent or relevant grants. Additional grants may be provided in an addendum document. Submit the addendum to [anu@nci.org.au](mailto:anu@nci.org.au) and include the text “ANUMAS 2020 APPLICATION ADDENDUM” in your email subject line.*

Last year I made a mistake and completed a project registration in the <https://my.nci.org.au> system but did not complete the full ANUMAS proposal in the <https://anumas.nci.org.au> system and missed out. How can I make sure to complete a full application in the 2020 call?

*Read the instructions in the Information for Applicants document in full and ensure that you complete your new project registration and your full merit proposal. Contact [anumas@nci.org.au](mailto:anumas@nci.org.au) if you run into any difficulties during the application process.*

Can I modify or correct errors in my ANUMAS application after submission?

*Submission is considered final, as noted in the Information for Applicants, so an application cannot be modified following submission. You may submit an addendum to correct errors by sending email to [anumas@nci.org.au](mailto:anumas@nci.org.au). Include the text “ANUMAS 2020 APPLICATION ERRATA” in your email subject line.*

How can I make my application more competitive?

*First, make sure you are applying in the category appropriate to your level of experience. Postdoctoral fellows who are establishing themselves in their fields are advised to submit an ECR application. All applicants should read the Information for Applicants in full, pay attention to detail, and demonstrate to the fullest extent their ability to use national facility HPC resources at scale.*

Why is the application process so complex?

*ANUMAS is very competitive and resources are limited. Applications must capture detailed information needed by the Committee to assess scientific merit and the ability to use HPC resources at scale.*

Why don't I receive detailed feedback about my application?

*ANUMAS usually receives approximately 100 applications in each yearly call. Committee workloads are such that detailed feedback for each application is not possible; each member of the Committee will assess between 10 and 20 applications. The Committee will, however, try to provide brief suggestions to the applicant in as many cases as possible. The Committee will also record comments raised during the allocation meeting for inclusion in your outcome.*

Can I get advice on how to write my ANUMAS application?

*Unfortunately, the Secretariat and Committee are not able to provide specific advice to individual applicants. All applicants are generally advised to:*

- 1. Make sure to read all supporting documentation, including rules and guidelines.*
- 2. Check your eligibility. If you have questions about eligibility contact the Secretariat as soon as*

possible.

3. Update your profile and research track record, and those of CIs in your research team.
4. Make a compelling case for your proposed research.
4. Demonstrate your ability to use the national HPC facilities at scale.
5. Include references for all research funding over the previous 5 years.
6. Submit your application as early as possible to take advantage of the administrative rejoinder process.
7. Write clearly. Pay attention to detail.
8. Respect the guidelines and the submission deadline.

My ANUMAS 2019 application was unsuccessful. Why didn't I receive an allocation?

*ANUMAS applications are not successful, in most cases, for one of the following reasons:*

1. Eligibility issues;
2. Non-compliant or incomplete application;
3. Poor conception or development of proposal;
4. Insufficient demonstration of peak-scale HPC requirement;
5. Inadequate justification of HPC resource request.

*New applicants to ANUMAS should, if possible, demonstrate a track record of effective HPC utilisation through another resourcing scheme(s), for example, the NCI Start Up scheme.*

Why do some projects receive very large ANUMAS allocations?

*The Committee will consider allocation of more than ~3-5 MSU/year only to applications which demonstrate exceptional and sustained track records or HPC utilisation, and which make a compelling case for HPC resources at large scales. Projects in this category typically present well-documented resource requests with compelling justification, and with extensive details of methodology, workflows, application performance, and scalability. These projects also have strong records of successful grant proposals and research output.*

How do I use the new ORCID functionality in my ANUMAS application?

*Applicants are able to import publication references from ORCID into their career profile via a new interface in the NCI online registration system, <https://my.nci.org.au>. The ORCID interface is available in the user's my.nci.org.au profile. The ORCID interface allows the user to nominate publications from their ORCID record for inclusion in their personal career profile in an ANUMAS application.*

***ORCID cannot be used to populate the publications fields in the project progress report section of the application.*** Note also that the my.nci.org.au ORCID implementation gathers data from ORCID only; it is not an alternative tool for managing your ORCID record.

*ORCID will be the preferred method for managing publications in the career profile section of your ANUMAS application. The free text publication interface in the Career form on <https://my.nci.org.au> will remain, however, completion of this is not required if you use ORCID. Applicants must, however, use one of the options in the user profile on <https://my.nci.org.au>: (1) ORCID via the Publication Record page, or (2) populate the free text entry fields for publications on the Career page.*

***All applicants should read supporting documentation for ORCID functionality — available via the ANUMAS website — in full.***



## Allocations

I was unable to utilise most of my 2019 ANUMAS allocation due to unforeseen circumstances or external dependencies. Can I still apply to ANUMAS for 2020?

*Yes. Your application should clearly explain the circumstances leading to under-utilisation of your 2019 allocation, and provide a strong justification of your 2019 resource request.*

My project expects to use its ANUMAS allocation at specific periods during 2020, and to have some corresponding periods of low usage. Can I request that my allocation be provided nonuniformly across quarters in 2020 to accommodate this operational requirement?

*Nonuniform installation of a compute allocation is at the discretion of the NCI. Generally, NCI can accommodate small variations in quarterly allocations. NCI will not, however, be able to install a yearly allocation into just one or two quarters, for example. Applicants who have scheduling dependencies and expect to have seasonal or varying usage are advised to engage directly with NCI to discuss their options.*

In 2019 I consumed my allocations before the end of each quarter. Can I request supplemental allocations if I face a similar situation in 2020?

*Unfortunately, ANUMAS is unable to provide supplemental allocations because it is heavily oversubscribed. Supplemental allocations are best sought from partner schemes if additional resources are needed during the year. Also note that some facilities, e.g. NCI, provide bonus time to allow projects to use spare cpu-hours at a reduced priority after a project has exhausted its primary allocation.*

Why have my previous ANUMAS allocations been less than the amount requested?

*Allocations are highly competitive; demand for cpu-hours generally exceeds supply. The Committee determines each allocation based on the merit of the proposal and track records of the project and its CIs. The Committee must adjust allocations to attempt to optimise usage of the ANUMAS resource pool, if necessary.*

Can I appeal if I am not satisfied with my ANUMAS outcome?

*Allocation decisions by the Committee are final. Appeals are accepted only in cases of administrative error on the part of the Secretariat, Facilities or the Committee. Administrative appeals are decided by the Allocation Committee Chair, with the assistance of the Secretariat.*

Why was the administrative rejoinder process implemented for the ANUMAS 2019 call?

*The goal of the administrative rejoinder process is to eliminate outright rejection of applications due to completeness or compliance issues. The bottom line is to help applicants.*

Does ANUMAS provide allocations for persistent disk and/or tape storage?

*ANUMAS can provide storage allocations in proportion to a compute allocation (via standard NCI-ANU partnership policies), however, provision of ANUMAS storage is at the discretion of NCI and limited to the duration of the ANUMAS award. Projects which have very large or long-term data storage requirements are advised to discuss storage options with NCI.*

Can my NCI project receive allocations from both ANUMAS and NCMAS?

*Yes. NCI projects can receive allocations from multiple stakeholders. Note, however, that separate standalone proposals are required for ANUMAS and NCMAS. These two merit schemes operate independently.*

## Eligibility

I am a research student, and my supervisor has asked me to submit an application to ANUMAS. What do I do?

*As a research student you are not eligible to apply for ANUMAS. You should advise your supervisor that he/she should check eligibility and apply.*

As a Lead CI, I want to delegate preparation of my ANUMAS application to a senior member of my research group. How do I do this?

*Promoting a team member to a Delegate Lead CI role on your project will grant them access to the ANUMAS online application system. Promotion is done through the online registration system at <https://my.nci.org.au> :*

1. Log in to <https://my.nci.org.au>
2. Go to your project listing (click on project name - in blue)
3. Select your delegate's name (click on name)
4. Use the Change tab to change the person's role to Delegate Lead CI
5. Submit the change.

I collaborate closely with a research group at another university. Can my external collaborators be listed as Chief Investigators on my ANUMAS application?

*Yes, inclusion of external collaborators is permitted. If you include external collaborators take care that they are not listed on other ANUMAS applications. An individual can be a Chief Investigator or Lead Chief Investigator on one ANUMAS application only.*

I have recently started a Postdoctoral appointment and wish to submit an application to ANUMAS. What should I do?

*You are eligible to apply to ANUMAS. Note that as a Postdoctoral Fellow it may be advantageous to apply in the Early Career Researcher (ECR) category.*

I have recently resumed my research career after a period of interruption. Am I eligible to apply to ANUMAS?

*You are eligible to apply in the Special Consideration category provided your research work has resumed within the last five (5) years, and your PhD was awarded within the previous nine (9) years. Please also note that Special Consideration applications are expected to demonstrate independent funding support.*

I am a Research Scientist employed at an Australian Government science agency (e.g. ANSTO, BoM, CSIRO, DST, Geoscience Australia). Am I eligible to apply?

*Researchers from Australian Government agencies are not eligible to apply to ANUMAS. They are, however, eligible to apply to the National Computational Merit Allocation Scheme (NCMAS), which has an annual call for applications in approximately the same time period (Q4) as ANUMAS. See <https://ncmas.nci.org.au> for more information about NCMAS.*

Our research group pursues several related compute-intensive research projects where each thread of work is led by a different member of the group. Can we submit individual ANUMAS applications for each body of work in the combined research effort?

*No. The group should submit a single, combined application to ANUMAS. Note that an individual may be Lead CI or CI on one application only, so individual applications submitted in this case would be ruled non-compliant.*

I am an experimentalist who wishes to use ANUMAS to supplement my research with theory/computation. Am I eligible to apply?

*Yes. Your application should aim to demonstrate the HPC expertise of your group and clearly describe how computation will contribute to your research plan.*

I am a new research faculty/Postdoctoral appointment, but do not yet have a track record of funding support. Am I eligible to apply?

*Yes. ANUMAS, unlike NCMAS, does not have a specific requirement for research grants. An Early Career Researcher may offer the best opportunity in your situation. An ANU Start Up scheme allocation is also a good vehicle for developing expertise and a track record with a view toward becoming competitive in ANUMAS.*

I have an adjunct appointment at the ANU. Am I eligible to apply to ANUMAS?

*If you are employed as 0.2 FTE or greater at the Australian National University, you are eligible to apply, however, you must register your primary university email address with your application (through <https://my.nci.org.au>).*

A Postdoctoral Fellow will be joining my project in January 2020 (formal job offer has been accepted) and I would like to include him/her as a CI on my ANUMAS application. The future Postdoc will not receive his/her PhD until December 2019. Can I include this Postdoc as a (regular) CI on my ANUMAS application?

*A PhD candidate may be included as a (regular) CI on an ANUMAS application. Note, however, that the Committee will review research track records of the Lead CI and all (regular) CIs as part of the assessment process. If the PhD candidate has outstanding research outputs this could be a positive factor for the application. If there are few or no demonstrable research outputs it might be better for the PhD student to take a Researcher role.*

## Appendix A: NCI - Gadi

ANUMAS provides merit-based access to 113 million (TBC) CPU-hours (SU) on [Gadi](#) (in Raijin equivalent SU), the NCI's peak computing system.

National Computational Infrastructure (NCI)	
<b>Facility overview</b>	<p>NCI is Australia's national research computing service. Home to Raijin, the nation's most highly integrated and highest performance supercomputer, NCI provides innovative, world-class services to Australian researchers. NCI operates a formal collaboration between Australia's national university - ANU; the national research agency - the Commonwealth Scientific and Industrial Research Organisation; the national meteorological agency - the Australian Bureau of Meteorology; and the national geosciences agency - Geoscience Australia. Since 2007, NCI's partnership has expanded to include a further 22 Australian universities. NCI's infrastructure was established through Commonwealth Government funding.</p> <p>ANUMAS allocations for 2020 will be on NCI's new petaflop-scale supercomputer – Gadi. This new system comprises ~3000 Intel Xeon Cascade Lake compute nodes, with 24 x 2 cores/node, configured with 192 GB RAM per node. Gadi also provides 50 Cascade Lake nodes with 1.5TB of memory, utilising Intel Optane DC Persistent memory, and 640 NVIDIA V100 GPUs in 160 nodes. Gadi's data interconnect is the latest generation Mellanox HDR InfiniBand, capable of data transfers at 200 Gb/sec. NCI also offers persistent data storage in excess of 50 petabytes. Data holdings include significant national and international data collections. NCI also operates a compute cloud for ancillary computing and data services.</p>
<b>ANUMAS computing resources</b>	113 M (TBC) core hours on Gadi (in Raijin equivalent SU).
<b>ANUMAS storage resources</b>	1240 TB (TBC) available to ANUMAS scheme. Committee to allocate according to project requirement. Allocations are limited to the duration of compute allocation (2020 calendar year).
<b>Software</b>	NCI maintains more than 170 application software packages for use on its systems. The NCI application software catalogue is available online at <a href="https://opus.nci.org.au/display/Help/Software">https://opus.nci.org.au/display/Help/Software</a> .
<b>User support</b>	NCI operates an expert Service Desk for users during normal business hours, Mon-Fri between 9:00 am and 5:00 pm AEST/AEDT. NCI Academic Consultants can provide assistance with user and project registration and operational issues, and can provide advice on code development and performance, and the use of scientific software in HPC environments. The User Services team aims to resolve help requests within four working hours.

**Appendix B: ANUMAS 2020 Application Checklist**

<b>Task</b>	<b>When</b>	<b>Comments</b>	<b>Done</b>
Download and read -- <i>ANUMAS 2020 Information for Applicants</i>	Now	This document contains important rules and guidelines for the 2020 call.	
Register for NCI user account and new ANUMAS project at <a href="https://my.nci.org.au">https://my.nci.org.au</a> (NEW APPLICANTS ONLY)	Now	New applicants must register for a user account and a project before starting an ANUMAS application. Note that the full ANUMAS application form is completed at <a href="https://anumas.nci.org.au">https://anumas.nci.org.au</a> (see below).	
All project members update contact information and career profiles at <a href="https://my.nci.org.au">https://my.nci.org.au</a>	Now	Personal information for all team members should be up to date.	
Lead CI or Delegate Lead CI should update project personnel at <a href="https://my.nci.org.au">https://my.nci.org.au</a>	Now	Add new team members, and remove members who no longer contribute to the project.	
Start ANUMAS application at <a href="https://anumas.nci.org.au">https://anumas.nci.org.au</a>	From 30 Sept 2019	This is your ANUMAS application. Note that the online form will be pre-populated with information from previous applications, if available. Draft versions of your application can be saved as needed.	
Submit final ANUMAS application at <a href="https://anumas.nci.org.au">https://anumas.nci.org.au</a>	ASAP before 5:00 pm AEDT, 11 November 2019	Early submission avoids the crunch at the deadline. Also note that the administrative rejoinder process is not available for applications submitted on or after 7 November 2020.	
Check ANUMAS outcome at <a href="https://anumas.nci.org.au">https://anumas.nci.org.au</a>	18 December 2019	Outcomes will be posted on the ANUMAS web site.	