

## TIPS: EARLY RESEARCHER AWARDS ROUND 17 (2022)

*Research Services Office*

### OVERVIEW

The Early Researcher Awards (ERA) program helps recently appointed Ontario-based researchers build their research teams of graduate students, undergraduates, postdoctoral fellows, research associates, and technicians.

Each award is a maximum of \$100,000 for eligible direct costs and must be matched by an additional \$50,000 from the researcher's institution and/or a partner organization. In addition, the Ministry will provide up to \$40,000 to the institution for indirect (operating) costs. The funds are to be used over a period of five years.

In the 2021 competition (Round 16), U of T submitted 55 applications and 11 were successful. U of T's success rate was 20%, compared to the province-wide success rate of 16%.

### EVALUATION CRITERIA

- Excellence of the researcher (40%)
- Quality of research (30%)
- Development of research talent (20%)
- Strategic value for Ontario (10%)

### APPLICATION DEADLINES

- **November 3, 2022:** Three signed letters of reference due to Research Services.
- **November 17, 2022:** MRA and complete application package due to Research Services. (*Research Services will submit the full application to the sponsor by December 1, 2022.*)

### GENERAL TIPS

**This tip sheet does not discuss all sections on the application form and should be consulted in conjunction with the [ERA program guidelines](#).**

- Applications are reviewed by a multidisciplinary peer-review panel, which may not include an expert in your field. They must therefore be intelligible to a generalist audience while also providing sufficient detail for a specialist audience. Avoid jargon, define all acronyms and technical terms, and clearly describe the significance of the research.
- One of the biggest stumbling blocks for researchers is securing reference letters on time. This process often takes longer than anticipated, and failure to have these letters at the time of submission will automatically eliminate your proposal from consideration.

**One of your first steps in preparing this application should be to arrange for these letters.**

- In completing the application form, address each point requested in the instructions for a given section. Make sure to read the [ERA program guidelines](#) carefully.
- Your aim is to persuade the reviewers, not merely to inform them. Take the time to put your accomplishments and research program in context. For example, explain what is exceptional about your publication record for a junior researcher or how the training opportunities you have created are unique.
- The application requires some guesswork about the future. Despite the unpredictability of research, be as accurate as you can when developing milestones and set realistic outcomes within a defined timeframe.
- Support your description of your program with measurable objectives and specific information about your sector and outcomes (statistics, quotes, reports, projections of economic growth).
- Ask your chair or another faculty member in your department to read over your application and provide feedback. If someone in your department or division has been awarded an ERA, ask that individual if they would review your application.
- Consult the list of projects that ERA has funded, available on the ERA website, and read some of the [relevant project descriptions](#). These descriptions can give you a sense of the scope of funded projects and the tone/type of language used by successful applicants.
- Although the program targets early career researchers, applicants must demonstrate a record of independent research. Emphasize research published independently from former supervisors and independent, peer-reviewed research funding.

## **FORMATTING & STYLE**

Your proposal must adhere to ERA's formatting guidelines:

- Arial 12-point font **must be used** in Appendices B and C.
- Appendix B **must not** exceed a maximum of six pages (including appendices).
- Margins **must be 1" x 1"**.
- Text must be **single-spaced**.
- Ensure that all pages in attachments are **numbered**.
- Funding amounts should be in Canadian dollars, with no cents.
- CVs must adhere to the formatting instructions in the [ERA program guidelines](#).

***Failure to follow these formatting requirements will result in your application being deemed ineligible.***

Good formatting will also create a favourable first impression and allow the reviewers to locate the information they need:

- Use a logical heading system, mimicking the language in the guidelines.
- Use white space to increase readability.
- Use bullets, where appropriate.
- Use short, concise sentences and paragraphs.
- Use the active voice and spell out conclusions for the reader ("Dr. X will investigate Y to

determine Z,” as opposed to “Y will be investigated”).

## SECTION-SPECIFIC TIPS: FILLABLE FORM

PLEASE NOTE: The section-specific tips below do not replicate the entire application form. Refer to the [ERA application form and program guidelines](#) for the complete instructions.

### 7. LEAD INSTITUTION CONTACT

Include the following information:

Mr. Kevin Hamilton  
 Director, Institutional Initiatives  
 Research Services Office, University of Toronto  
 3rd Fl. – 12 Queen’s Park Crescent West  
 Toronto, Ontario, M5S 1S8  
 647-302-8717  
[kevin.hamilton@utoronto.ca](mailto:kevin.hamilton@utoronto.ca)

### 8. RESEARCH SUMMARY (200 words max.)

The summary is the **first impression** you make on reviewers.

- This summary should provide reviewers with an overview of your work and should be compelling to a non-specialist.
- Write the summary in plain language and directly address the following:
  - What is the research problem or challenge?
  - What is your solution? How will you address it (i.e., methodology)?
  - **Why is this research significant (particularly for Ontarians)?**
- Have as many people as possible read the summary and revise it until they find it clear and persuasive.

### 9. A. DESCRIPTION OF THE RESEARCHER (PI)—SUMMARY (200 words max.)

This section should address the **“excellence of the researcher”** criterion.

- Discuss your area of expertise and your accomplishments within the field. Refer to your academic and employment record, research grants and awards, publications, and other examples of research productivity.
- Discuss your current standing and potential for excellence in the research field, based on research plans.
- You will need to be selective in what you discuss. In particular, highlight your accomplishments that demonstrate your independence from your former supervisor.

### 9. B. DESCRIPTION OF THE RESEARCHER (PI)—FIRST DEGREE(S) EARNED & 9. C. DESCRIPTION OF THE RESEARCHER (PI)—FIRST ACADEMIC APPOINTMENT

Researchers must have completed their first Doctor of Philosophy, Doctor of Veterinary Medicine, Medical Doctor, or Terminal Degree **on or after January 1, 2011** and must have started their independent academic research career **on or after January 1, 2016**.

#### **9. D. DESCRIPTION OF THE RESEARCHER (PI)—INTERRUPTIONS OR DELAYS (200 words max.)**

Section 9d allows the applicant to provide the review panel with details on interruptions (e.g., continued education and required training, such as medical training and fellowships, or parental leave) or delays that may have impacted productivity. You will not be able to provide further documentation or letters, so provide the necessary detail here. **Use all of the allotted words to provide a full and clear explanation.** Include months in your date ranges, not only the years. Use your CV to reinforce this explanation and provide further detail. Failure to provide this information, if applicable, will result in the application being deemed ineligible.

If there have been no delays or interruptions, please state “None.”

#### **11. A. RESEARCHER’S (PI) BACKGROUND IN TRAINING—HIGHLY QUALIFIED PERSONNEL (HQP)**

Use the chart to indicate the number of HQP that you have supervised and co-supervised. For privacy purposes and compliance, do not insert names, institutions, or departments.

#### **11. B. RESEARCHER’S (PI) BACKGROUND IN TRAINING—HQP TRAINING DETAILS (200 words max.)**

Use this section to explain how, given your unique expertise, your previous trainees received an exceptional and highly valuable learning experience. Make the case that, as a mentor, you have placed a high priority on creating a rich training environment and have passed along cutting-edge skills.

- What specific skills did your trainees gain? Emphasize transferrable skills (cross-disciplinary, beyond academia where appropriate).
- Describe any **unique** experiences provided to your HQP (e.g., career development opportunities, research exchanges, international fieldwork, access to unique datasets/equipment, training in cutting-edge research methods, experience in knowledge mobilization).
- Highlight particular successes that your trainees have achieved as a result of this training (e.g., awards, jobs, etc.).
- Briefly indicate how your past successes with HQP are indicative of future successes.
- Briefly highlight how EDI has shaped your training philosophy, how you have used intentional practices to engage a broad and diverse group of trainees, and/or how you have integrated EDI principles into your training activities. (NOTE: **Do not** disclose identifying/demographic information about trainees.)

#### **11. C. RESEARCHER’S (PI) BACKGROUND IN TRAINING—CO-SUPERVISED HQP (200 words max.)**

- Describe your specific roles and responsibilities as a co-supervisor. This section should further support the case that, as a mentor, you create a rich training environment and enable HQP to acquire cutting-edge skills. This section also provides a good opportunity to illustrate your commitment to EDI principles in your training.
- Include any specific steps or activities you have implemented to foster EDI in your role as a co-supervisor. (NOTE: Do not disclose identifying/demographic information about trainees.)

### 11. D. POLICY EXEMPTION—HQP TRAINING (200 words max.)

Describe any institutional or department policies that may have affected the depth of your experience in training and supervising/co-supervising HQP.

### 12. TRAINING PLANS FOR RESEARCH TEAM (200 words max.)

This section should address the “**development of research talent**” criterion.

- Present a clear training plan:
  - Be specific about the number of HQP to be trained and their levels (e.g., undergraduate, Master’s, PhD, postdoc). **Names are not required.**
  - Describe how each member will be involved in the proposed research: What specific research activities will each trainee carry out? Ensure the roles of the HQP are appropriate to their level of study.
  - Describe the knowledge/skills each team member will be expected to acquire.
- Discuss how your project represents a unique training opportunity for HQP:
  - What experience will trainees receive while working on this project/in your lab that they would not receive elsewhere?
  - Describe the unique opportunities to use particular infrastructure, train in world-class facilities, collaborate with international partners, gain expertise in innovative methodologies, work at the cutting edge of the field, etc.
- How will this training prepare HQP for employment? Discuss how these trainees will be in high demand in the job market.
- This section must clearly demonstrate your commitment to Equity, Diversity and Inclusion (EDI) in your research team.
  - Provide **concrete examples** of practices that will meaningfully engage trainees who are members of under-represented groups and that will create an equitable and inclusive training environment in which all trainees can reach their full potential.
  - These practices can include the proactive and intentional recruitment of a diverse group of trainees; the equitable distribution of training, mentorship, and career development opportunities; or the implementation of practices that promote inclusion.
  - For more information, consult the [resources on the EDI in Research & Innovation website](#), including the VPRI handbook on [Addressing EDI Considerations in Your Research Funding Application](#).
  - Avoid broad/general statements; space is very tight, so you will want to move straight into your description of specific EDI practices. In addition, you will need to go beyond simply pointing to institutional policies.
- Link the training plan directly to the research activities described in the proposed research plan (Appendix B).

### 13. STRATEGIC VALUE TO ONTARIO (200 words max.)

This section should address the “**strategic value for Ontario**” criterion.

- Do not underestimate the importance of this section (10% of the final weighted score). It should argue persuasively that your research and training program will have results that will benefit Ontario.
- Focus on one or two of the bullet points listed for this criterion in the guidelines (page 9) and make a strong case for the value of your proposed research and training program for those areas for Ontario (rather than at the local or national level). It is not advisable (or even possible) to try to address every bullet point. Choose the examples from the list that are most relevant to your research and training plan.
- Discuss how the results generated by your project will produce tangible economic benefits (new products, new efficiencies, reduced healthcare costs) or social benefits (reduced disease rates, better management of public resources, specific improvements to quality of life). Make a strong case, but be realistic; don't oversell the impact.
- Briefly outline the anticipated path of knowledge transfer from your lab/research to these economic and social benefits. Include a specific plan and highlight the engagement of your end users.
- Discuss how the HQP trained in your lab will be equipped with an in-demand skill set, which will help contribute to this sector. (Training is a key form of knowledge transfer.) Emphasize that the skills acquired by HQP are highly transferable to the sector.
- If relevant, address how your research plan will enhance Ontario's profile in the global academic community.
- Use evidence such as statistics to bolster your statements of strategic value. Possible sources for this information include the following websites:
  - [Innovation, Science & Economic Development Canada](#) (lists statistics by industry)
  - [Statistics Canada](#) (some statistics are broken down by province)
  - [Invest Ontario](#)
  - [Ministry of Economic Development, Job Creation and Trade](#)
  - [Ontario ministries](#) whose mandates correlates with your work (e.g., the Ministry of Natural Resources correlates to research in forestry)

## 14. OTHER PROJECT REQUIREMENTS

### INTELLECTUAL PROPERTY (IF APPLICABLE)

The applicant should describe how ownership and disposition of IP generated from the project will be determined.

All team members should also be familiar with [UofT's Inventions Policy](#), which outlines duties and responsibilities of the inventive team, such as timely filing of Invention Disclosures. If the underlying research project involves contributions by external sponsors (in the form of cash or in-kind), then the IP terms negotiated by the University in support of this project (set out in a duly-executed Sponsored Research Agreement) would supersede the Inventions Policy – this is explicitly articulated in 3.2 of the Policy.

## INTELLECTUAL PROPERTY TRAINING

List any IP training the research team has undertaken recently or plans to do.

UofT Entrepreneurship provides an online [IP Education Program](#). The modules are free for all UofT students, faculty, and staff and require a UTORID to register. Each module takes about 2-4 hours to complete and can be completed at one's own pace. Applicants themselves, as well as research team members, should complete the modules, as it is relevant to faculty and staff as well as to students. All team members should complete the modules in advance of commencing any research project, to avoid any accidental mishandling of IP by team members.

Training can also be taken through [Ontario's intellectual property resources](#) and the [Canadian Intellectual Property Office \(CIPO\)](#).

## YOUTH OUTREACH PLAN (200 words max.)

Present a thoughtful plan to undertake annual youth outreach activities relevant to your research, targeting high school, middle school, and/or elementary school students. See the [ERA program guidelines](#) (page 10) for a list of example activities.

- You may use up to 1% of the ERA funding (\$1,000) for activities, but it is not mandatory to use these funds.
- Eligible expenses include consumables, supplies, development of working models, etc.
- You may be able to build on existing programs at the university. Talk to your department/faculty liaison representative about youth outreach programs already in place.
- You may participate in existing activities operated by science awareness organizations, such as [Science Rendez-Vous](#), which U of T sponsors, and the [Science and Technology Awareness Network](#). Organizations relevant to outreach for social sciences and humanities research might include libraries, museums, art galleries, heritage sites, and community groups.
- Youth outreach activities must take place during **each year** of the project. Should in-person opportunities not be available or feasible, virtual approaches should be used to conduct the youth outreach activities.
- Provide concrete details of your plan: describe the activities and when they will take place, the researchers involved, and an estimated number of youth who will be engaged.

## 15. MILESTONES AND DELIVERABLES

Make sure milestones are realistic and achievable with reasonable certainty. For example, it may take up to a year to advertise and hire for some positions. If applicable, embed EDI milestones within your other training milestones, e.g., recruiting a diverse group of trainees.

- Youth outreach milestones are to be undertaken each year of the award
- A maximum of 10 key milestones and deliverables per category is allowed

## 16. FUNDING RECEIVED BY RESEARCHER

Be sure that all funding received is identified, including internal sources such as the Connaught awards. The ERA is used to support the development of the applicant's research team, not to cover the applicant's research expenses or supplies and infrastructure, so you must demonstrate that the project has sufficient funding to be sustained for five years. Specify which of the existing grants will be used to support the proposed research outlined in this application.

## 17. GOVERNMENT AWARDS RECEIVED BY RESEARCHER

If you answer "yes" to either of these questions, then you are NOT eligible for an ERA.

## 18. REFERENCE LETTERS

The letters of reference play a **crucial role** in the ERA competition. As there is no guarantee that the reviewers will have expertise in your specific field, the reference letters may substitute for expert review, and thus it is important that they be sufficiently detailed and enthusiastic. If you have any doubts that your three letters will arrive on time, request one or two back-up letters from additional individuals.

### Referee biographies

Using the 100-word biography of your referees, discuss why you selected these individuals. Address who they are, their relationship to you, their expertise/accomplishments, and their stature in the field.

### Selecting your referees

Three reference letters must be provided:

- Two letters from arm's-length referees who are researchers of international stature and who are familiar with the researcher's work; and
- One letter from a non-arm's-length referee (a former supervisor, mentor, or collaborator familiar with the researcher).
- Referees cannot be affiliated with the nominating institution, faculty, or department.
- Reference letters must be dated less than 6 months from submission date.

Do not choose an arm's-length referee from the University of Toronto or its affiliates — the reviewers may question the objectivity of the referee and may not be confident that the referee is sufficiently arm's-length.

Choose referees who will provide a strong letter; reference letters that are not enthusiastic or only modestly describe the candidate's potential and research excellence will have a negative impact on your review. Collectively, these letters should provide a whole picture of you and your project, including your ability to develop research talent. Letters from industry are acceptable and may even give your application an edge.

### Content (see page 15 of the guidelines for suggestions for the referee)

Provide your referees with your CV, research proposal, and background material on the ERA



program. Letters should address all the ERA Evaluation Criteria: excellence of the researcher, quality of research, development of research talent, and strategic value for Ontario. They should therefore describe:

- Your track record and potential, as well as your ranking relative to your peers.
- Your proposed research, including its strengths, excellence, and anticipated impact.
- Clearly state the full name of the applicant
- Include the referee's name, position, department, institution, email address and telephone number
- Include a statement from the referee declaring that there is no conflict of interest (if applicable)

### Format

Letters must be a maximum of **two pages** in length and written in **Arial 12-point** font with standard margins. Letters must be **dated** and submitted on **letterhead**. The letters should be addressed as follows:

Research Services Office, University of Toronto  
 3<sup>rd</sup> Floor McMurrich Building  
 12 Queen's Park Crescent W  
 Toronto, ON  
 Canada  
 M5S 1S8

Dear Early Researcher Award Selection Committee,

### Process

The application package must include three signed letters of reference. Referees should send their letters **directly to Andrea Hung** ([andrea.hung@utoronto.ca](mailto:andrea.hung@utoronto.ca)) **in the Research Services Office**. Applicants **must not** submit the letters to Research Services or the Ministry directly.

Letters must arrive by **Thursday November 3, 2022**. Applications that do not include all three reference letters on the date of submission are incomplete and will not be accepted by the Ministry.

Referees should send their letters via email with electronic signature. Hard copies are not accepted in the current competition.

## SECTION-SPECIFIC TIPS: APPENDICES

### APPENDIX A: TOTAL EXPENDITURE BUDGET

- For salaries in the first year, consider the time it will take to recruit team members prior

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RESEARCH SERVICES OFFICE, 3<sup>rd</sup> Floor McMurrich Building, 12 Queen's Park Crescent West, Toronto, ON, M5S 1S8, Canada. See contact information on the website: [research.utoronto.ca](http://research.utoronto.ca)

to start of salary payments.

- The award is for a **duration of five years**. The budget must be planned out for **the full five years** to qualify for the ERA program.
- Refer to the [ERA program guidelines](#) for information on eligible costs.
- Total Operating (indirect) Costs should be 40% of total direct costs for each year of the award.
- Each field must be filled out, use '0' if no amount is to be spent for that year for that line item.
- Include a budget justification (maximum of 200 words) focusing on how each budget item (personnel, travel, associated expenses, discretionary expenses) is required to achieve the aims of the project and how the estimated costs in the budget were calculated.

## **APPENDIX B: PROPOSED RESEARCH (maximum 6 pages, including appendices, excluding references)**

### **General tips**

- You must obey the six-page limit and include the required formatting (**Arial 12-point font, 1" margins, single-spaced**). Failure to follow the ERA formatting requirements will result in your proposal being deemed ineligible. Where possible, ensure that all pages in attachments are numbered.
- Review panels are multidisciplinary, so use a clear structure and take the time to explain the implications for non-specialists.
- Present a specific research plan, concentrating on one or a maximum of two projects, which will be carried out during the five years and support your larger research program.
- Be sure to address all the points covered in the guidelines (page 14). This research proposal should respond to **all** of the ERA's four evaluation criteria.
- The six-page limit does not include references; a separate references section (no page limit) can be included in addition to these six pages. Applicants may not use the references section to include additional information such as graphs or figures.
- If there is significant overlap with other complementary research grants that you have received, provide a brief clarification about the unique role that each funding source will play in enabling the project: what unique aspect of the project will ERA funds support?

### **Example outline of a research proposal**

#### ***Rationale***

- Introduce the research problem or challenge. If possible, provide statistics showing the potential costs of inaction and/or benefits of action for Ontario. Provide a detailed but concise synopsis of the proposed research.
- Describe the purpose of the proposed research (the "why"). Outline your research direction and objectives within the context of the current state of knowledge in the field. This background section is also a good place to highlight your past research successes on this topic (addressing the "excellence of the researcher" criterion).

### ***Proposed Research***

- Describe your proposed research activities, outlining your plans and methodological approaches. Make the case that you are taking an innovative approach that promises to break new ground.
- Consider including subheadings that address the specific criteria (e.g., “Objectives,” “Methodology,” etc.).
- Be sure to speak to all four of the sub-criteria under the “quality of the research” criterion (excellence of the proposed research; originality of the proposed research; clarity of research proposal; relevance of methodology).
- Clearly address the “development of research talent” criterion and include a discussion of how the HQP will be involved in this research. **Link research activities with the training plans outlined in section 12.**
- Keep in mind the five-year timeline and demonstrate that your objectives are feasible within this timeframe. Your plans should also be compatible with (and possibly make reference to) the Research Milestones listed in section 15.

### ***Significance and Impact***

- Discuss the anticipated results and say why these results are important.
- Highlight how the proposed research will lead to benefits for Ontario (addressing the “strategic value for Ontario” criterion).

## **APPENDIX C: RESEARCH PRODUCTIVITY AND RECOGNITION**

Submit a **customized CV** following the formatting instructions provided by the sponsor (including all of the categories outlined in the [program guidelines](#)). Your CV must be in **Arial 12-point font**; failure to follow formatting requirements will result in your CV being deemed ineligible.

Applicants can use the CV to provide additional information that demonstrates their independence from former supervisors. You can also use the CV to provide additional context for any interruptions or delays described in section 9d and to offer further clarification about your eligibility. There is no page limit for the CV, but try to be concise.

## **ATTACHMENT – MITIGATION ECONOMIC AND GEOPOLITICAL RISK CHECKLIST**

Complete the [Mitigating Economic and Geopolitical Risk Checklist](#) and submit to Research Services as a separate file. The Checklist is **not** embedded in the application.

One box in each row must be filled in. Complete the “Potential Risk Identified & Risk Mitigation Plan” section. If any of your responses are “No” or “Not Applicable”, please briefly explain in the free text box.

## COMMON WEAKNESSES IDENTIFIED BY REVIEWERS

In addition to the common application errors listed in the ERA program guidelines, the Research Services Office has identified the following key weaknesses noted by reviewers in recent unsuccessful applications:

### Excellence of the researcher

- Candidate has modest record of grants/does not hold competitive grant funding.
- Candidate does not have publications as an independent senior author.
- Candidate's publications tend to be in low-impact journals.
- Reference letters are not arm's-length.

### Quality of research

- Research project is too broad in scope and lacks specific objectives and/or objective measures of success.
- Research proposal plan is not clear and/or needs more methodological details.
- Research plan has little information about analysis of results.

### Development of research talent

- Training proposed for trainees is not well described and/or does not indicate that trainees are given the opportunity for career development.
- Candidate has had limited experience in terms of training, often because candidate was just appointed and this application is premature.

### Strategic value for Ontario

- Proposal does not make the case that the research will have significant benefits to Ontario.

Last updated: September 26, 2022