TIPS: MRIS EARLY RESEARCHER AWARD
Last updated March 2018 (Round 14)

This tips sheet does not replace a complete and careful reading of the application instructions and guidelines, available on the Ministry website:
[*https://www.ontario.ca/page/early-researcher-awards-program-guidelines*](https://www.ontario.ca/page/early-researcher-awards-program-guidelines)

OVERVIEW OF THE PROGRAM

The Early Researcher Award (ERA) program helps recently appointed Ontario researchers build their research teams of undergraduates, graduate students, post-doctoral fellows, research assistants, research associates, and technicians. The goal of the program is to improve Ontario's ability to attract and retain the best and brightest research talent.

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

Although the program targets early researchers, applicants must demonstrate a record of conducting independent research (e.g., publications independent of work completed with the applicant's former supervisors) and securing independent, peer-reviewed research funding.

In the 2017 competition (Round 13), U of T submitted 47 applications, and 16 of these were successful. This is a success rate of 34%, compared to the province-wide success rate of 40%.

EVALUATION CRITERIA
Excellence of the researcher (40%)
- Accomplishments, based on academic and employment record, research grants and awards, publication record, and other examples of research productivity.
- Current standing and potential for excellence in the research field, based on research plans and letters of reference.
- Demonstrated independence from previous supervisor regarding publication.
- Demonstrated independent peer-reviewed funding.

Quality of the research (30%)
- Excellence and originality of the proposed research, based on the research plan.
- Clarity of research proposal and relevance of methodology.

Development of research talent (20%)
- Development of research knowledge and skills, based on the training plan for members of the research team.
- Unique, leading-edge training.

- Past experience training HQP.

Strategic value for Ontario (10%)
- Benefits can include—but are not limited to—economic benefits, knowledge transfer, ability to enhance the province's profile in the global academic community, social and/or cultural benefits, and impact on the focus areas of Ontario's Innovation Agenda.
- Applicants should also demonstrate how they will create experiential opportunities for students, as identified in the Highly Skilled Workforce Strategy.

APPLICATION DEADLINES

Notice of Intent deadline (submit to the Research Services Office): **Friday, May 25, 2018** (for submission to sponsor by June 1, 2018). An MRA is not required at this point.

Draft for editorial review (submit to the Research Services Office): **Monday, June 25, 2018** — The Research Services Office will offer an optional editorial review for all interested applicants. Please submit a complete, near-final draft for review; please send Appendices B and C as Word documents. This is a firm deadline—late applications will not receive an editorial review.

Letters of reference (submit directly from the referee to the Research Services Office): **Monday, July 16, 2018.**

MRA deadline: **Monday, July 23, 2018 —** *We recommend submitting the MRA **before July 23,** as the path of approvals to reach RSO may take a few days on MROL.*

Research Services Office final deadline (submission of complete application package): **Monday, July 23, 2018** (for submission to sponsor by August 7, 2018).

GENERAL TIPS

- Applications are reviewed by a multidisciplinary panel, which may or may not include an expert in your field. The application therefore has to be intelligible to a generalist audience while also providing sufficient detail for a scientific/specialist audience. Avoid jargon, define all acronyms and technical terms, and clearly communicate the originality and significance of the research.
- One of the biggest stumbling blocks for researchers applying for the ERA 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 guidelines** on the ERA website.
- Combine the big picture with some well-chosen details that support the overall argument. It pays to do some background research to find statistics, quotes, and other hard facts that show the state of the industry, projections for economic growth, etc. Use measurable objectives as much as possible.

- Your aim is to persuade the reviewers, not merely to inform them. So when requested to provide a list of publications, present a training plan for HQP, etc., take the time to provide the proper context to put yourself in the best light. 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, the sponsor would like to see measurable outcomes/deliverables in a set time period. Be as accurate as you can when developing milestones, and set realistic outcomes.
- Ask your chair or another faculty member in your department to read over your application and offer you feedback. If someone in your department or division has been awarded an ERA, ask that individual to review your application.
- Consult the list of projects funded, available on the ERA website, and read some of the relevant project descriptions: https://www.ontario.ca/data/early-researcher-awards-program. These descriptions can give you a sense of the scope of funded projects and the tone/type of language used by successful applicants.

FORMATTING & STYLE

You must leave the margins as you found them in the application form and follow MRIS's general format guidelines:

- Arial 12-point font <u>must be used</u> in Appendices B and C.
- Margins for Appendix B – Proposed Research <u>must be</u> 1" x 1"
- The application should be printed, double-sided, on 8 1/2" x 11" white paper.
- Application should not be bound or stapled. Binder clips are preferred.
- Print must be in black and of letter quality.
- Text must be single-spaced, with no more than six lines per inch.
- Funding amounts should be in Canadian dollars, with no cents.
- CVs must adhere to the MRIS's formatting instructions, which can be found in the program guidelines on the ERA website.

Please note: Failure to follow these formatting requirements will result in your application being deemed ineligible.

In addition, good formatting will allow the reviewers to locate the information they need and will create a favourable first impression for your proposal. For example,

- Use a logical heading system, possibly mimicking the language in the instructions.
- Use white space extensively in the application form.
- Use bullets, where appropriate.
- Use short, concise sentences and paragraphs.
- Use active voice and spell out conclusions for the reader ("Dr. X will investigate Y to determine Z," as opposed to "Y will be investigated").

COMMON WEAKNESSES

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

- 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.
- 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.
- 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.
- Proposal does not make the case that the research will have significant benefits to Ontario.
- Statement of strategic value is realistic but more detail was needed.
- Reference letters are not arm's-length.

Please review this list when writing and revising your application. Be sure to provide sufficient detail about research activities, training plans, and significance to Ontario.

TIPS FOR SPECIFIC SECTIONS

The ERA program has introduced fillable forms. **Please fill in the application form templates provided on MRIS's website.**

The section-specific tips below DO NOT replicate the entire application form. **Sections that are straightforward are not included here**.

6. INSTITUTION CONTACT

Ms. MayLiza Baak
Director, Institutional Initiatives
Research Services
3rd Floor, McMurrich Building
12 Queen's Park Crescent West
Toronto, Ontario, M5S 1S8
416-978-7605 (phone)
416-946-3707 (fax)
m.baak@utoronto.ca

7. RESEARCH SUMMARY (150 WORDS MAXIMUM)

The summary is the first impression you make on reviewers.
- This summary should provide an overview of your work to the reviewers and should be accessible to a non-specialist.

- Write the summary in plain language and make it compelling: answer the "why" question—why is this research significant?
- Have as many people as possible read the summary and revise it until everyone says it is crystal clear.

8. A. DESCRIPTION OF RESEARCHER—SUMMARY PROFILE (150 WORDS MAXIMUM)

This section should address the "excellence of the researcher" criterion.
- Discuss your area of expertise and your accomplishments within the field. Base this discussion on 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: highlight your independence from your former supervisor.

8. B. DESCRIPTION OF RESEARCHER—DEGREE(S) EARNED AND 8. C. DESCRIPTION OF RESEARCHER—FIRST ACADEMIC APPOINTMENT

Researchers must be within ten years of receiving their Doctor of Philosophy, Doctor of Veterinary Medicine, Medical Doctor or Terminal degree as of July 1, 2018 (i.e., degree earned no earlier than July 1, 2008) and within five years of their first independent academic appointment as of July 1, 2018 (i.e., appointed no earlier than July 1, 2013).

8. D. DESCRIPTION OF RESEARCHER—INTERRUPTIONS OR DELAYS (150 WORDS MAXIMUM)

Section 8d allows the applicant to provide the review panel with details on interruptions or delays. 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 information will result in the application being deemed ineligible. If there have been no delays or interruptions, please state "None."

10. A. RESEARCHER'S BACKGROUND AND 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.

10. B. RESEARCHER'S BACKGROUND IN TRAINING—HQP TRAINING DETAILS (150 WORDS MAXIMUM)

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).
- What <u>unique</u> experiences were provided (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.

10. C. RESEARCHER'S BACKGROUND IN TRAINING—CO-SUPERVISED HQP (150 WORDS MAXIMUM)

Describe your specific roles and responsibilities as a co-supervisor. 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.

10. D. POLICY EXEMPTION—HQP TRAINING

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

11. TRAINING PLANS FOR RESEARCH TEAM (300 WORDS MAXIMUM)

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). Describe how each member will be involved in the proposed research. What specific research activities will each trainee carry out? Describe the knowledge/skills each team member will be expected to acquire. The roles of the HQP should be appropriate to their level of study.
- 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 and the targeted economic sectors in [Ontario's Innovation Agenda](#) (bio-economy and clean technologies; advanced health technologies; pharmaceutical research and manufacturing; and digital media and information & communication technologies). Describe how the training plan will address the priorities of the [Ministry of Research and Innovation and Science](#), including a supportive and dynamic business environment, modernized infrastructure and transportation networks, increased talent and skills among Ontarians, and a healthier population.
- Include a description of how the training program will support Ontario's [Highly Skilled Workforce Strategy](#). This strategy emphasizes the need to expand experiential learning opportunities to enable the province's workforce to adapt to the demands of a technology-driven knowledge economy. As defined by this strategy, experiential learning

"goes beyond traditional forms of 'learning by doing' such as co-op, and includes volunteering, apprenticeship, industry-recognized class projects, and mentorship."
- Link this training plan directly to the research activities described in the proposed research plan (appendix B).

12. STRATEGIC VALUE TO ONTARIO (200 WORDS MAXIMUM)

This section directly should address the "strategic value for Ontario" criterion. The focus of the discussion should be Ontario (rather than local or national benefits).
- Focus on one or two of the bullet points listed in Section 12 of the application form and make a strong case for these areas of value. It is not advisable (or even possible) to try to address every bullet point. Choose examples from this list that are most relevant to your research and training plan.
- Discuss how your proposed project will advances the goals of Ontario's Innovation Agenda. Address the anticipated impact on the sectors highlighted in this document. Try to choose at least one sector, if relevant.
- 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).
- Describe how your research will fulfill the priorities of the Ministry of Research, Innovation and Science.
- Describe how your research will support Ontario's Skilled Workforce Strategy, (especially experiential learning).
- Discuss how the HQP trained in your lab will be equipped with the in-demand skill set to contribute to this sector. (Training is a key form of knowledge transfer.) Emphasize that the skills acquired by HQP are highly transferable to the relevant sector.
- 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 and Growth
  - Ontario ministries whose mandates correlates with your work (e.g., the Ministry of Natural Resources correlates to research in forestry)
- 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.

13. YOUTH OUTREACH PLAN (200 WORDS MAXIMUM)

This section should address the "development of research talent" criterion. Although this section will represent only 1% (maximum) of the total ERA funding (i.e., $1,000), you should present a thoughtful plan to undertake annual youth science and technology outreach activities. You may be able to build on existing programs at the University. Talk to your Department/Faculty school liaison representative about youth outreach programs already in place in your division.

- The primary target audience is high school, middle school, and elementary school students.
- Mentorship experience can include activities that engage youth audiences as well as educators and the general public, both on-campus and in the local community.
- Describe how you will expand current outreach activities and/or start new ones (emphasizing activities free to youth and the public); partner with other researchers at UofT to create a broader outreach initiative; and/or involve graduate students in the design and delivery of the outreach program (e.g., grad students as mentors to high school students).
- Describe how you will participate in activities operated by other organizations. For example, you may consider working with science awareness organizations such [Science Rendez-Vous](), which UofT sponsors, and the [Science and Technology Awareness Network](). Organizations relevant to social sciences and humanities research might include libraries, museums, art galleries, heritage sites, and community groups.
- Sample activities include speaking opportunities, lecture series, workshops and demonstrations, student competitions, and lab mentorship.
- These funds can be used for developing and delivering outreach activity (e.g., consumables, supplies, development of working models).
- Youth outreach activities must take place during each year of the project.

14. 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 some positions.

15. FUNDING RECEIVED BY RESEARCHER

Be sure that all funding received is identified, including internal sources such as Connaught Start-up and New Staff Matching Grants, Dean's Funds in the Faculty of Medicine, etc. 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 will want to demonstrate that the project has sufficient funding and will be sustained for five years. Specify which of the existing grants will be used to support the proposed research outlined in this application.

16. GOVERNMENT AWARDS RECEIVED BY RESEARCHER

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

17. 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 biographies of your referees, discuss why you selected these individuals. Address who they are, their relationships to you, their expertise/accomplishments, and their stature in the field.

Who to choose
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.
- One letter from a non-arm's-length referee (a former supervisor, mentor, collaborator, or corporate sponsor familiar with the researcher).

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, and your non-arm's-length referee should also speak to your ability to develop research talent. Letters from industry are acceptable and may even give your application an edge.

Content
Reference letters should comment on
- your track record and potential, as well as your ranking relative to your peers;
- your proposed research, including its strengths, excellence, and anticipated impact.

Before asking your referees to write these letters, provide them with your CV, research plan, and background material on the ERA program.

Format
We suggest these letters be a maximum of two pages. The letters should be addressed to the ERA Secretariat.

Process
The application package must include three signed letters of reference. These letters must be sent from the referees directly to the Research Services Office and must arrive by **Monday, July 16,**

2018. Applications that do not include all three reference letters on the date of submission (August 7, 2018) will be considered incomplete.

Referees can send their letters as either hard copies or via email—original signatures, scanned signatures, and e-signatures are acceptable.

Emailed letters should be sent to can.lam@utoronto.ca

Hard copies of letters should be sent to the following address:
> ERA Nomination **(*YOUR NAME*)**
> c/o Candy Lam, Research Services Office
> University of Toronto
> 12 Queen's Park Crescent West, Third Floor
> Toronto, ON M5S 1S8, CANADA

Our office recommends that hard copies of letters of reference be sent by a courier that provides tracking numbers for the documents.

APPENDIX A: TOTAL EXPENDITURE BUDGET

- For salaries in the first year, consider the time it will take to recruit team members prior to start of salary payments.
- The award is for the duration of five years.
- Refer to the ERA program guidelines for information on eligible costs.

CONFIRMATION OF MATCHING FUNDS

- The matching letter(s) must guarantee a contribution of at least 50% of the amount requested from the ERA, excluding indirect costs. Include a letter from your Chair/Dean committing to the matching funding.
- The matching letters must use the Ministry template; letters that do not use this template will not be accepted.
- If possible, include matching funds from industry. Doing so may give your application a competitive advantage. Industrial funds from outside of Canada are acceptable.
- Ideally, matching letters from industry will provide some enthusiastic discussion of why they support your research. Such letters would thus effectively function as a fourth letter of reference, further bolstering the application.

APPENDIX B: PROPOSED RESEARCH (MAXIMUM 5 PAGES, EXCLUDING REFERENCES)

- You must obey the five-page limit and follow the formatting found in the program guidelines (**Arial 12-point font and 1" margins**). Failure to follow these formatting requirements will result in your proposal being deemed ineligible.
- Review panels are multidisciplinary, so use a clear structure and take the time to explain the implications for the non-specialist.

- 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.
- Make sure the proposal is specific, concentrating on one or a maximum of two projects.
- Make sure to address all the points covered in the instructions. This attachment should also touch on each of the ERA's four evaluation criteria.
- The five-page limit does not include references; a separate references section can be included in addition to these five pages. There is no page limit for the references, but applicants may not use the references section to include additional information such as graphs or figures.

The following is an example of a general outline. It will be helpful to also include subheadings within each section that address the specific criteria (e.g., "Objectives," "Methodology," etc.).

Introduction and 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.
- 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 11.
- Keep in mind the five-year timeline and demonstrate that your objectives are feasible within this timeline. Your plans should also be compatible with (and possibly make reference to) the Research Milestones listed in section 14.

Conclusion and Impact
- Discuss the anticipated results and say why these results are important.
- This is also a good place to highlight how the proposed research aligns with your targeted economic sector and will lead to benefits for Ontario (addressing the "strategic value for Ontario" criterion).

APPENDIX C: RESEARCH PRODUCTIVITY AND RECOGNITION

Submit a customized CV that follows the ERA instructions, which can be found 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 independence from former supervisors. For example, you can use the CV to provide additional context for interruptions described in section 8d and to offer further clarification about your eligibility. There is no page limit for the CV, but try to be concise.

SIGNATURE [INSTITUTIONAL APPROVAL]

An MRA must be submitted to Research Services for institutional approval by **July 23, 2018**. The MRA automatically routes your request through the internal approval process, ending at the Research Services Office. Since the path of approvals may take a few days, we recommend that applicants submit the MRA **before July 23.**

The applicant must also submit the complete application package (hard copies) to the Research Services Office by **July 23, 2018**.