Request for Applications (RFA) - FINAL
Hemostasis and Thrombosis Research Society (HTRS)
2025 HTRS Mentored Research Award (MRA) Program

Letters of Intent are due Monday, August 19, 2024, by 11:59 PM ET
Full Proposals (invitation only) are due Monday, December 2, 2024, by 11:59 PM ET

Applications must be submitted via the HTRS online grant submission site
HTRS 2025 Mentored Research Award Application

Section 1: About the Hemostasis and Thrombosis Research Society

Incorporated as a nonprofit organization in 1994, the Hemostasis and Thrombosis Research Society, Inc. (HTRS) is the leading North American professional society dedicated to research, mentoring, workforce development, and continuing medical education for physicians, investigators, and all health care professionals interested in advancing care for people with hemostatic and thrombotic disorders. To learn more about HTRS, visit www.htrs.org.

Section 2: About the HTRS Mentored Research Award (MRA) Program

a. Program Description

The HTRS MRA Program provides grants for fellows (clinical or postdoctoral) and junior faculty pursuing careers in clinical, translational, or basic science research in hemostasis or thrombosis under the guidance of an experienced mentor or mentors. Since the Program's inception in 2007, HTRS has awarded more than $9.5 million in grant support for 66 Mentored Research Award recipients.

The MRAs are meant to offer a stepping stone, on-ramp, or re-entry opportunity toward the NIH funding pipeline – specifically as a pre-K career development award (e.g. K award or equivalent).

b. Program Goals

i. Increase the number of skilled physician-scientists and investigators in the U.S. and Canadian medical workforce dedicated to long-term research careers in classical hematology

ii. Support innovative research by pairing talented young promising early-career physician-scientists and investigators with experienced mentors, many of whom are recognized leaders in

clinical and/or basic science research in hemostasis and thrombosis

iii. Provide trainees and junior faculty in the U.S. or Canada an accessible "on-ramp" into either the NIH or Canadian Institutes of Health Research (CIHR) research pipeline by funding initial research programs that can spark and support K-award applications (or equivalent)

iv. Prepare recipients for a larger-scale grant to expand their research such as a K08 or K23 from the National Institutes of Health (NIH) in the U.S. or the equivalent from another agency such as the CIHR

HTRS encourages applicants from historically excluded and underrepresented populations to apply, understanding that a diverse scientific workforce will, according to NIH research: foster scientific innovation, contribute to robust learning environments, improve the quality of the research, and advance the likelihood that underserved or health-disparate populations will benefit from this research.

This includes individuals from racial and ethnic groups who have been shown by the National Science Foundation to be underrepresented and/or historically excluded in health-related sciences on a national basis, as well as individuals with disabilities, students from low socioeconomic (SES) status backgrounds, individuals from disadvantaged backgrounds, and women.

HTRS bases our diversity policy on that of **NIH's Interest of Diversity Notice**.

In the application process, applicants will be offered the opportunity to self-identify as a member of an historically excluded and/or underrepresented population and provide a brief explanation.

c. Project Period

The 2025 MRA project period is two (2) academic years, from July 1, 2025 through June 30, 2027.

d. Award Amount

The total grant award is $165,000 USD. This amount includes at least $151,800 to support direct expenses required to complete the proposed research ($75,900 per year) plus up to $13,200 (up to $6,600 per year) to support indirect expenses related to the recipient institution's grant management fees.

e. Number and Category of Awards

i. Factors that influence the number and category of MRAs offered in each award cycle include the number and scientific quality of applications received by HTRS, the success of annual fundraising efforts to underwrite the MRA Program, and available therapeutic focus areas of commercial company supporters.

ii. HTRS reserves the right to: (1) determine the number and category of awards made through the 2025 MRA Program, i.e. hemostasis vs. thrombosis, clinical vs. basic or translational science; (2) postpone decisions regarding the 2025 MRA Program, or (3) reschedule or cancel the 2025 MRA program prior to selecting award recipients based on the status of HTRS fundraising for the program.

Section 3: Applicant Eligibility Requirements

a. General Requirements

i. Eligible applicants must hold an MD, MD/PhD, PhD, DO, MBBS, or an equivalent medical or scientific doctoral degree. In the appropriate setting, other clinical degrees may be accepted and include nursing, pharmacy, or other allied health professional degrees. Interested applicants should reach out to Jennifer Ziegler, HTRS Director of Award Programs and Career Development at jziegler@htrs.org with their pathway to obtaining a K-type NIH or Canadian career development award. A determination of eligibility will be made based on whether the candidate has a reasonable pathway to a NIH-type career development award.

ii. Only applicants and mentors employed by academic, non-commercial institutions are eligible. Applicants must declare their intent to pursue an academic research career in hemostasis or thrombosis (or an academic research career that will have a substantial component of, or overlap with, hemostasis and/or thrombosis).

iii. Note to Canadian Applicants: Due to rare restrictions imposed by some pharmaceutical companies who provide grant support to support the MRA Program, HTRS may not be at liberty to fund Canadian fellows or junior faculty for this award cycle. Interested Canadian applicants should email Jennifer Ziegler, HTRS Director of Award Programs and Career Development, at jziegler@htrs.org to confirm eligibility prior to taking the time to submit a Letter of Intent.

iv. U.S. or Canadian citizenship is not required to apply; however, award recipients must agree to live and work in the U.S. or Canada for the tenure of their MRA-funded project. Non-U.S. citizen applicants with a J1 Visa waiver – even those in their first faculty positions – are encouraged to apply, as are those with an equivalent Canadian visa. With eligibility questions, please email jziegler@htrs.org to confirm before submitting a Letter of Intent. For details on J1 Visa waiver applicants, see: https://travel.state.gov/content/travel/en/us-visas/study/exchange.html

v. HTRS requires recipient institutions to protect no less than 20% of an awardee's total time for the HTRS MRA Project.

vi. Awardees may be enrolled in a higher degree program during the tenure of their MRA-funded project if they can provide evidence of sufficient time to conduct the research proposed in their application. (See Section 12 for further information regarding time commitment.)

vii. If applicants are also eligible to apply for the Mid-Career Research Award (MCRA), HTRS *strongly encourages* application to the MRA before applying for the MCRA, especially if K-Award funding has not been received.

b. Specific Requirements for Fellows

i. Fellows must be enrolled in ACGME-accredited hematology fellowship training programs in the U.S. (or the equivalent in Canada) to be eligible.

ii. Fellows enrolled in non-hematology training programs may apply if they can demonstrate career goals and project aims that exhibit substantial overlap with, or clear application to, thrombosis and hemostasis.

iii. Fellows receive free HTRS trainee membership for the duration of their training. Applicants who are fellows are required to activate their free HTRS trainee membership at www.htrs.org no later than the MRA Letter of Intent deadline in order to be eligible.

iv. HTRS MRA funds cannot be used to fund fellow salaries (unless the fellow takes additional time outside of the fellowship for research pursuits).

v. If the fellow changes institution or job description before or during the award (such as starting a faculty position), funds will not be released unless the recipient and recipient's institution communicate with HTRS how the recipient will accomplish the award in the new setting.

vi. NOTE: Scoring is not adjusted based on the applicant's level of experience, but an applicant's academic trajectory may be taken into account. Eligible individuals who are in training are encouraged to apply but will be judged similarly to junior faculty applicants.

c. Specific Requirements for Junior Faculty/Junior Attending

i. Applicants who have secured junior faculty/junior attending positions at U.S. or Canadian academic institutions must be within seven (7) years of completing an ACGME-accredited hematology fellowship training program (or the equivalent in Canada) as of July 1, 2025. Please see qualifying leaves below for extension of this.

ii. U.S. junior faculty within seven (7) years of completing other medical training programs (or the Canadian equivalent) may apply if they can demonstrate career goals and specific project aims that have a substantial overlap with, or clear application to, hemostasis and/or thrombosis.

iii. For applicants who are pursuing or have completed an additional fellowship following initial hematology training, the seven (7) year requirement (or the Canadian equivalent) is calculated from the completion date of the initial hematology fellowship.

iv. Junior faculty are strongly encouraged (but not required) to become HTRS core members prior to submitting an MRA Letter of Intent. (Membership status will not affect recipient selection.) Applicants agree to maintain active HTRS memberships for the duration of the grant period and any approved no-cost extensions (NCEs) if selected as MRA recipients.

d. Qualifying Leaves

i. HTRS will consider appeals regarding qualifying leaves that may affect the application time frame. Qualifying leaves are defined as unpaid periods of time that eligible employees can take from work under the Family and Medical Leave Act (FMLA). Examples include, but are not limited to: complete or partial hiatus from research activities for child rearing; an incapacitating illness or injury of the applicant or a member of the applicant's immediate family; relocation to accommodate a spouse, partner, or other close family member; pursuit of non-research endeavors that would permit earlier retirement of debt incurred in obtaining a doctoral degree; and military service.

ii. Applicants who submit an appeal regarding a qualifying leave should submit their request by July 19, 2024, which is 30 days prior to the Letter of Intent deadline.

iii. Potential applicants who do not meet the stated eligibility criteria but who can demonstrate qualifying leaves are encouraged to email jziegler@htrs.org before submitting a Letter of Intent.

iv. Only applicants and mentors associated with non-commercial institutions are eligible. Applicants must declare their intent to pursue an academic career in hemostasis and/or thrombosis or an academic career that will have a substantial component of, or overlap with, the disciplines of hemostasis and/or thrombosis.

v. U.S. or Canadian citizenship is not required, but Awardees must work in the U.S. or Canada for the duration of the grant period.

vi. Early-stage investigators may submit separate applications to multiple HTRS award programs in the same year; however, only one HTRS award can be granted per applicant per year.

vii. Previous HTRS Clinical Fellowship Award or HTRS/ATHN DREAM Award applicants may apply for a 2025 MRA if the project period of the previous award does not overlap with the 2025 MRA project period.

e. Applicants Enrolled in Higher Degree Programs

i. Applicants may be enrolled in a higher degree program as long as they demonstrate they have sufficient time to conduct the research project proposed in their MRA application. HTRS requires recipient institutions to protect a minimum of 20% of the awardee's total time for the HTRS MRA Project. (See Section 12a for more information regarding time commitment.)

f. Applying for More than One HTRS Award

i. Previous HTRS MRA or THSNA MRA (Thrombosis and Hemostasis Societies of North America) recipients are not eligible to apply.

ii. Applicants who applied for past HTRS or THSNA MRAs but were not selected for an award, and who meet current MRA eligibility requirements, may submit a Letter of Intent for the 2025 HTRS MRA. The 2025 submission may be with the same institution/laboratory or a new institution/laboratory; the same primary mentor or a new mentor; the same project aims or new project aims. For repeat submissions, reviewers will evaluate changes to the proposal in response to previous reviews. If prior comments are adequately addressed and clearly highlighted as a response to reviewer concerns, the Letter of Intent may be qualified to bypass the Letter of Intent review and move on to the full proposal stage without feasibility review, especially if that proposal had previously advanced to the full proposal stage.

Section 4: Mentor Eligibility Requirements

a. Primary Mentors

i. Applicants must select a primary mentor who is directly involved in clinical or basic science/translational science research in thrombosis and/or hemostasis to be eligible for an award. Primary mentors can be MDs, DOs, MD/PhDs, PhDs, or hold an MBBS or equivalent degree.

ii. **If applicants are interested in applying for the HTRS MRA Program but do not have a research mentor, HTRS may be able to help identify a mentor. Applicants looking for a mentor should email jziegler@htrs.org stating their desired research location and area of interest, and HTRS will help facilitate introductions with a potential mentor within their research focus if available to make that connection.**

iii. Primary mentors are required to be active HTRS core members of record for a minimum of 12 consecutive months prior to the Letter of Intent submission deadline. If the applicant's primary mentor is not a current HTRS member, or if the primary mentor joined HTRS less than 12 months prior to the deadline, the applicant must secure a co-mentor who is an active HTRS member of record and who has maintained that status for more than 12 consecutive months prior to the Letter of Intent submission deadline.

iv. If the applicant is selected as an MRA recipient, the primary mentor must maintain active HTRS membership throughout the project period and any approved NCEs.

v. Primary mentors must agree to supervise the applicant if an award is granted and abide by the conditions of the award throughout the project period and any approved no-cost extensions (NCEs). They are also required to prepare a formal Letter of Support for the applicant to include in an invited full proposal application.

vi. Primary mentors are typically present at the same institution where the applicant proposes to do the majority of his/her research. However, applicants may secure a primary mentor at a different institution, as long as an effective communication plan is outlined in the Letter of Intent and/or invited full proposal to indicate how mentoring will take place over distance.

b. Co-Mentors

i. Applicants may elect to invite one or more co-mentors in addition to the primary mentor. Co-mentors should bring additional medical or scientific expertise to the project. Co-mentors can be MDs, DOs, MD/PhDs, PhDs, or hold an MBBS or equivalent degree. Applicants are not required to secure a co-mentor to be eligible for an award.

ii. If the applicant is selected as an MRA recipient, the co-mentor(s) must maintain active HTRS membership throughout the project period and any approved NCEs.

iii. Co-mentors must agree to supervise the applicant if an award is granted and abide by the conditions of the award throughout the project period and any approved NCEs. They are also required to submit a formal Letter of Support for the applicant to include in an invited full proposal application; see below for further details.

iv. Co-mentors are typically present at the same institution where the applicant proposes to do the majority of his/her research. However, applicants may secure a co-mentor at a different institution as long as an effective communication plan is outlined in the Letter of Intent and/or invited full proposal to indicate how mentoring will take place over distance.

Section 5: Project Eligibility Requirements

a. Eligible research projects must exhibit a substantial component of, and relevance to, hemostasis and/or thrombosis. Topics may include, but are not limited to, acquired or inherited bleeding disorders, venous

thromboembolism, arterial thrombosis, thrombotic microangiopathy, hemostasis in other disease (such as sickle cell disease or infectious diseases), or uterine hemostasis. HTRS encourages the full breadth of applications within the topic areas.

b. Eligible research projects can be but are not limited to:

   i. Clinical or translational science projects, including, for example, epidemiological or translational studies with or without a secondary component of laboratory work

   ii. Basic science or laboratory projects, including, for example, molecular biology, physiology, pharmacology, biomarker, or translational studies where the primary emphasis is a laboratory component

   iii. Qualitative or mixed methods research designed to improve insight into the experiences of those living with or caring for those with disease processes listed above.

c. Applicants may propose projects related to other medical disciplines, such as obstetrics/gynecology, adolescent medicine, cardiovascular medicine, neurology, or neonatology, as long as their projects exhibit substantial overlap with, and/or clear application to, thrombosis and hemostasis.

d. Use of the ATHNdataset or Other National Datasets. Before submitting a Letter of Intent, applicants who propose projects using the ATHNdataset or other national databases must confirm with ATHN or the owner of the database that data required for their research project are indeed contained in that database. If the proposed data is not available, the applicant should indicate that the project will be supplemented with other data and explain how and where such data will be obtained. A letter of support documenting access to the data is required.

e. Interested applicants should email jziegler@htrs.org prior to taking the time to submit a Letter of Intent if they have any questions regarding project eligibility.

Section 6: Peer Review Criteria - How Proposals will be Evaluated

a. Letter of Intent Applications: Feasibility and Eligibility Review

   i. At this stage, the goal for peer reviewers is to determine whether applicant(s) should progress to the full proposal stage based on overall eligibility of the candidate and mentor/co-mentor, along with feasibility of the research project and whether it is independent of any concurrent research projects.

   ii. Applicants must provide a summary of the proposed research. When preparing Letters of Intent, applicants should consider the following six domains that will be used to assess full proposals. **Comprehensive information about these domains is provided in section "b" below:**

      1. Candidate
      2. Career Development Plan/Career Goals and Objectives
      3. Research Plan
      4. Mentor(s), Co-Mentor(s)
      5. Environment and Institutional Commitment to Candidate
      6. Pathway to Future Funding (including Career Development Awards): How likely is it that applicant's research will lead to additional funding?

iii. Applications will be judged based on answers to the following questions:

- Does the applicant meet the eligibility requirements?
- Does the mentor team meet the eligibility requirements?
- Do the aims of the proposed research project seem feasible within the 2-year MRA grant period?
- Is the proposed research project clearly independent from the mentors' current research?
- How does this research and the career development activities further the likely success of the applicant in obtaining future awards?

iv. Reviewers will answer "yes" or "no" to these five questions. No other scoring system will be used, and no written reviewer comments will be provided at the Letter of Intent stage.

v. Applications deemed eligible and feasible will progress to the full proposal stage.

b. Full Proposal Applications: Scores based on 6 Domains and 1 Overall Impact Score

HTRS follows the U. S. National Institutes of Health ("NIH") framework for reviewing and scoring mentored awards similar to our Mentored Research Awards ("MRAs"). Please read these guidelines carefully to aid the successful progression of your application.

Each Mentored Research Award ("MRA") full proposal application is reviewed by three (3) independent reviewers who will base their scoring on six domains: Candidate; Career Development Plan/Career Goals and Objectives; Research Plan; Mentor(s) and Co-Mentor(s); Environment and Institutional Commitment to Candidates; and Pathway to Future Funding (including Career Development Awards). Each domain is scored on a scale of 1 to 9, with 1 being exceptional and 9 being poor.

Criteria Scoring: NIH-style, 9-Point Scoring System (scored 1-9, 1 is exceptional)

**If applicants are Canadian, they are not on the NIH track and will not be evaluated this way with respect to career development or other aspects related to the Canadian training/career development environment.*

Impact Level	Score	Descriptor	Additional Assessment of Strengths/Weaknesses
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
	2	Outstanding	Extremely strong with negligible weaknesses
	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong but with numerous minor weaknesses
	5	Good	Strong but with at least one moderate weakness
	6	Satisfactory	Some strengths but also some moderate weaknesses
Low	7	Fair	Some strengths but with at least one major weakness
	8	Marginal	A few strengths and a few major weaknesses
	9	Poor	Very few strengths and numerous major weaknesses

Non-numeric score options: NR = Not Recommended for Further Consideration, DF = Deferred, AB = Abstention, CF = Conflict, NP = Not Present, ND = Not Discussed
Minor Weakness: An easily addressable weakness that does not substantially lessen impact **Moderate Weakness:** A weakness that lessens impact **Major Weakness:** A weakness that severely limits impact

The Overall Impact Score
In addition to scoring each domain, reviewers are also asked to provide an **Overall Impact Score**. The Overall Impact Score assesses the likelihood that the proposed project will enhance the applicant's potential for a productive, independent scientific research career in hemostasis and thrombosis. This is not a mathematical combination of the components, but an overall impression of the grant in its entirety.

Criteria for Evaluating Domains

Reviewers should provide their assessment of the likelihood that the proposed career development and research plan will enhance the candidate's potential for a productive, independent scientific research career in a health-related field, taking into consideration the criteria below in determining the overall impact score.

1. **Candidate**
   - Does the candidate have the potential to develop as an independent and productive researcher?
   - Are the candidate's prior training and research experience appropriate for this award?
   - Is the candidate's academic, clinical (if relevant), and research record of high quality?
   - Is there evidence of the candidate's commitment to meeting the program objectives to become an independent investigator in research?
   - Do the letters of support from address the above review criteria, and do they provide evidence that the ca**ndidate has a high potential for becoming an independent investigator?**

2. **Career Development Plan/Career Goals & Objectives**
   - What is the likelihood that the plan will contribute substantially to the scientific development of the candidate leading to scientific independence?
   - Are the candidate's prior training and research experience appropriate for this award?
   - Are the content, scope, phasing, and duration of the career development plan appropriate when considered in the context of prior training/research experience and the stated training and research objectives for achieving research independence?
   - Are there adequate plans for monitoring and evaluating the candidate's research and career development progress?

3. **Research Plan**
   - Are the proposed research question, design, and methodology of significant scientific and technical merit?
   - Is the research plan relevant to the candidate's research career objectives?
   - Is the research plan appropriate to the stage of research development and as a vehicle for developing the research skills described in the career development plan?

4. **Mentor(s), Co-Mentor(s)**
   - Are the qualifications of the mentor(s) in the area of the proposed research appropriate?
   - Does the mentor(s) adequately address the candidate's potential and his/her strengths and areas needing improvement?

- Is there adequate description of the quality and extent of the mentor's proposed role in providing guidance and advice to the candidate?
- Is the mentor's description of the elements of the research career development activities, including formal course work adequate?
- Is there evidence of the mentor's previous experience in fostering the development of independent investigators?
- Is there evidence of the mentor's current research productivity and peer-reviewed support?
- Is active/pending support for the proposed research project appropriate and adequate?
- Are there adequate plans for monitoring and evaluating the career development awardee's progress toward independence?

5. **Environment and Institutional Commitment to the Candidate**
   - Is there clear commitment of the sponsoring institution to ensure that a minimum of 9 person-months (75% of the candidate's full-time professional effort) will be devoted directly to the research and career development activities described in the application, with the remaining percent effort being devoted to an appropriate balance of research, teaching, administrative, and clinical responsibilities?
   - Is the institutional commitment to the career development of the candidate appropriately strong?
   - Are the research facilities, resources and training opportunities, including faculty capable of productive collaboration with the candidate adequate and appropriate?
   - Is the environment for scientific and professional development of the candidate of high quality?
   - Is there assurance that the institution intends the candidate to be an integral part of its research program?

Section 7: Distribution of Award Funds

MRAs of $165,000 USD will be distributed by HTRS to the successful applicant's institution in three payments:

1. The first payment of $82,500 USD (50% of the award) will be issued after full execution of the legal grant agreement contract between HTRS, the awardee, and the recipient institution.

2. The second payment of $66,000 USD (40% of the award) will be issued after HTRS approves a formal 12-month progress report describing research conducted during the first year of the project period.

3. The third payment of $16,500 USD (10% of the award) is contingent upon approval by HTRS of a final, 24-month report upon completion of the project period.

Instructions for required reporting are communicated to successful applicants in their award notification letters and grant agreement contracts. Canadian applicants, see page 2 of this document for further specificity.

Section 8: Use of MRA Funds and Project Budget Requirements

a. <u>General Requirements</u>

   i. HTRS MRA funds may be used for both direct and indirect costs associated with proposed research projects. An applicant's two-year MRA project budget may not exceed a grand total of $165,000 USD.

   ii. HTRS encourages applicants to reflect all necessary project expenses in their proposed project budgets. Any funds left unspent at the end of the project period must be returned by the

recipient institution to HTRS for repayment by HTRS to the grant's pharmaceutical company supporter.

iii. If indirect costs are requested as part of the project budget (see Section 7b), eligible direct costs may not exceed $151,800 USD.

iv. If indirect costs are not requested as part of the project budget, eligible direct costs can equal, but not exceed, $165,000 USD.

b. Eligible Direct Costs

i. Awardee Stipend: Full or partial support for the awardee's salary and fringe benefits (combined as one line item). HTRS uses NIH salary caps for the awardee if applicable. See specific considerations for fellows on page 3 of this document; HTRS funds must be used for research time and not supplement fellowship funding.

ii. Stipends for Key Project Personnel: Full or partial support for the salaries and fringe benefits of key personnel, including laboratory technicians, statisticians, or others required to complete the project with appropriate NIH salary caps.

iii. Equipment and supplies necessary to conduct the project

iv. Required Travel: Conference registration fees, travel expenses, and hotel costs for the recipient to attend the HTRS Scientific Symposium or another well-recognized national or international professional meeting during the project's second year (or in the year immediately following the 24-month project period) to present his/her progress or results of MRA-funded research. MRA funds may not be used to cover registration fees, travel, or lodging expenses to attend professional meetings other than the above-mentioned meeting, unless such costs are specifically approved by HTRS in advance as essential to project outcomes.

v. Statistical Support Costs (if provided by the recipient institution or other local resource; see also Section 10).

c. Eligible Indirect Costs

HTRS MRA funds up to $13,200 USD may be used to support the recipient institution's management fees or other indirect costs, including required lab or facility fees. Line items for such fees may not exceed 8% of the total $165,000 award, or $13,200 over two years ($6,600 per year). For Canadian applicants, a specific institution's management fees may be structured differently allowing for some flexibility but the same principles apply.

Section 9: Current and Pending Support Requirements

MRA applicants invited to submit full proposals must report all current and pending funding sources for their proposed projects.

Applicants are encouraged to apply to their institutional Office of Sponsored Research (OSR) for supplemental funds and support. In the event that additional funding becomes available that overlaps with direct or indirect costs in the approved MRA budget, the awardee will be asked to provide a revised project budget outlining the impact of the new funds and how remaining MRA funds will be impacted or reallocated.

If the new funding covers all or substantially all of the direct and/or indirect costs previously assigned to the MRA project budget, all unused MRA funds must be returned to HTRS. More details about the impact of current and pending support on MRA award budgets are included in awardees' Grant Agreement contracts.

Section 10: Statistical Support Requirements

Statistical support is a required component of all invited MRA full proposals and MRA-funded research projects. HTRS believes that introducing early-stage physician-scientists to a structured approach to statistical planning will better prepare them to conduct their research projects successfully and go on to secure more competitive funding from the NIH or other national sources.

a. Statistical support includes establishing study goals and objectives/hypotheses; identifying appropriate study design (clinical trial, epidemiologic, cross-sectional, longitudinal, single center, multi-center); deciding on the type and amount of data to collect; determining appropriate sample size; and identifying effective methods for analyzing data and reporting results.

b. Applicants without access to adequate institutional or local sources of statistical support should request such support through HTRS in their Letter of Intents. If the Letter of Intent is favorably reviewed, a statistical consultant will contact the applicant directly to assist in the preparation of the full proposal, and, if an award is granted, to assist with research project implementation.

Section 11: Presentation Requirement for MRA Recipients

Awardees are required to make a good faith effort to present information about their projects' research progress and outcomes at a recognized national or international professional meeting during the two-year grant period (or in the year immediately following the grant period).

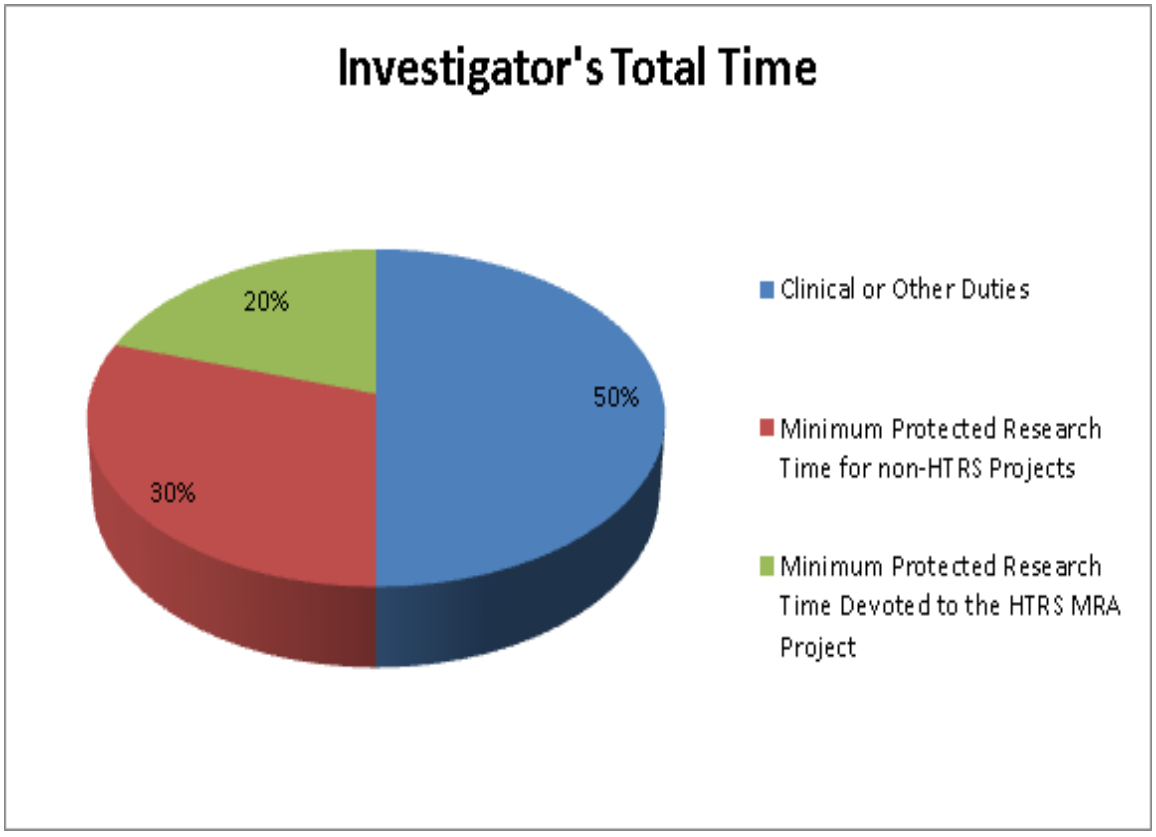
Awardees are encouraged to select the HTRS Scientific Symposium as the meeting of choice to fulfill this requirement, with the Thrombosis and Hemostasis Societies of North America (THSNA) Summit as a second choice.

Costs to support conference registration fees, travel, and lodging for this meeting must be included in the full proposal project budget. Instructions for acknowledging HTRS and the grant's commercial pharmaceutical company supporter in presentations will be included in the successful applicant's notification letter and grant agreement contract.

Section 12: Other Conditions and Responsibilities

Submission of an MRA Letter of Intent and/or an invited full proposal implies acceptance of the following conditions by the applicant, the recipient institution, the primary mentor, and any co-mentors:

a. Focus and Goal of the MRA. The principal focus and overall goal of the MRA is to support early-career investigators, enabling successful applicants to further their experience in performing independent research careers in clinical, translational, or basic science research in hemostasis or thrombosis within a mentorship framework. HTRS believes that early career awardees have an increased chance of a quality learning experience and successful project outcomes when at least 50% of their total time is protected by their institutions for research or research-related activities. HTRS encourages recipient institutions to meet this 50% level of protected time if possible. A minimum of 20% of the awardee's total time for the HTRS MRA Project is required by HTRS as a condition of grant acceptance.



b. Grant Agreement Contract. Upon notification of funding, awardees are responsible for providing HTRS with the name and contact information of the appropriate financial or legal representative at their institutions who will receive the official grant agreement contract prepared by HTRS. The awardee, his/her primary mentor, any co-mentors, a representative of the recipient institution, and the HTRS Executive Director are required to sign the grant agreement before award funds can be dispersed.

c. Change in Status. The awardee is responsible for providing HTRS with written notice of any changes in status related to their project or career path at any time during the course of the project period. Change in status notification letters are subject to review and approval by HTRS. While most change requests are negotiable, it should be noted that a change in career direction from an academic research institution to a commercial research company or laboratory is not permitted per MRA eligibility requirements and will result in the awardee forfeiting the MRA and the recipient returning the balance of unspent funds to HTRS. Exact conditions and instructions for submitting a change in status request are outlined in the Grant Agreement contract.

d. Award Administration. The day-to-day administration of MRA funds is the responsibility of the recipient institution's OSR or hospital research department. As such, the recipient institution issues award funds as outlined in the approved project budget according to its own procedures and payment schedules. Funds are never sent to awardees directly.

e. Requirements Regarding Rights of Human Subjects. The recipient institution is responsible for protecting the rights and welfare of all human subjects participating in the MRA-funded research activity. Awardees requesting MRA funds for research involving human subjects are required to submit written

evidence to HTRS of Institutional Review Board (IRB) approval, along with written evidence of their institution's Federalwide Assurance (FWA) number (for U.S. investigators) and its renewal date before funding can be awarded. Written approvals must be in place for the duration of the project period in order to receive MRA funding from HTRS, and copies must be appended to the fully executed grant agreement contract. Written evidence of continuing IRB approval and FWA renewal (FWA renewal is every five years) must be submitted with each MRA progress report to confirm continued coverage.

f. Requirements Regarding Animal Studies. The recipient institution is responsible for protecting the welfare of animals involved in the MRA-funded research activity. **Awardees requesting MRA funds for research involving animals are required to submit written evidence to HTRS of Institutional Animal Care and Use Committee (IACUC) approval (or equivalent), along with a copy of their institution's Association for Assessment and Accreditation of Laboratory Animal Care (AAALAC) International accreditation (or equivalent) before funding can be awarded.** These approvals must remain in place for the duration of the project period in order to continue to receive MRA funding from HTRS. Written evidence of continuing IACUC approval and AAALAC accreditation (AAALAC review is every three years) will need to be submitted with each progress report to confirm continued coverage.

g. Acknowledgment of HTRS and Pharmaceutical Company Support. Any review articles (published or in progress), abstracts, manuscripts, or oral and poster presentations resulting from an awardee's MRA-funded research must acknowledge both the support of HTRS and the appropriate pharmaceutical company supporter as outlined in the applicant's award notification letter and the fully executed grant agreement contract. Awardees are required to provide HTRS with copies of any articles (published and in progress), abstracts, manuscripts, or oral and poster presentations resulting from their MRA-funded research during and after the project period with appropriate acknowledgments listed.

h. Required Reports. Award recipients are required to submit two formal reports to HTRS using the templates provided by HTRS: 1) a progress report describing the first year of MRA-funded research, and 2) a final report to be submitted within three (3) months of the completion of the project period. HTRS is required to share these reports with the pharmaceutical company supporter of each MRA. Awardees accept primary responsibility for understanding when reports are due and for following submission instructions provided by HTRS. Required reports must include a list of any articles (published and in progress), abstracts, or oral and poster presentations resulting from the MRA-funded research, with copies of articles (published and in progress), abstracts, or oral and poster presentations appended. Awardees accept primary responsibility for understanding when reports are due and for following submission instructions provided by HTRS. Complete instructions for reporting are outlined in awardees' notification letters and grant agreement contracts.

Section 13: Disclosure of HTRS Compliance with State or Federal Requirements per *Open Payments: The Physician Payments Sunshine Act*

HTRS research awards may be reportable by law to state or federal agencies under *Open Payments: The Physician Payments Sunshine Act* ("Sunshine Act"). HTRS may be required to share information about recipient institutions, awardees, or other particulars of funded grants with the pharmaceutical companies supporting our award programs. Such companies may, in turn, deem grant information reportable per their policies related to the Sunshine Act.

Applicants to HTRS award programs are required to confirm, prior to submitting a Letter of Intent that their institution is able to accept grant funding that may be subject to Sunshine Act reporting. Applicants who have questions about the Sunshine Act should contact their institutional OSR or other grant administrator for more details, since regulations can differ by institution and state.

Section 14: Submitting a Letter of Intent and/or Invited Full Proposal

An NIH-style reviewing process will be engaged for both Letter of Intent and Full Proposal reviews.

a. Letters of Intent

Submitting a Letter of Intent is the mandatory first step in the MRA application process. Applicants are required to follow all Letter of Intent submission instructions and upload all required documents to the HTRS Survey Monkey Apply (SMA) Grant Submission Site at **htrs.smapply.org**. Applicants must click on "Register" to create an SMA account using their email address as a username and an individual password of their choice. (The SMA site allows applicants to save their work and return to it later.)

2025 MRA Letters of Intent are due on or before **Monday, August 19, 2024 at 11:59 PM ET**. The SMA site will confirm receipt of Letter of Intent submissions via email. Applicants who do not receive confirmation of receipt via email within 72 hours of submission should contact HTRS at jziegler@htrs.org. Late Letter of Intent submissions will not be accepted.

The HTRS Scientific Review Committee completes a thorough review of all submitted Letter of Intents. If the Letter of Intent is favorably reviewed by the Committee as outlined above, the applicant will be informed within five weeks from the Letter of Intent submission deadline that a Full Proposal is requested.

Applicants will be reviewed based on the following four criteria: eligibility of candidate, eligibility of mentor/co-mentor, feasibility of the research project within a 2-year timeframe, and feasibility of the research project as wholly independent (as outlined in Section 6, below). Applications will not be scored but will be judged eligible and feasible or not, progressing if three of the four criteria are met.

Components of a Complete Letter of Intent:

i. **Application Form:** Applicants are required to complete the Letter of Intent Application Form in the HTRS online grant submission site.

ii. **Letter of Intent Narrative** (3 pages maximum, excluding references)
Please submit the Letter of Intent Narrative on the HTRS online grant submission site as a PDF document. Refer to the review factors and considerations described in Section 6.

iii. **Optional Section for a Rebuttal**: Past applicants who were invited to submit full proposals during the 2024 MRA cycle, but who did not receive an award, may submit a "rebuttal" in their Letter of Intent application as a PDF document. They must explain why they should be advanced to this cycle's full proposals round and provide evidence that they have addressed concerns raised in their past full proposal review. *(This can be in excess of the 3-page maximum for the Letter of Intent Narrative, as outlined in Section II above.)*

Although every effort is made to match reviewers' expertise to the type of proposal submitted, please prepare your narrative with the assumption that an academic or clinical hematologist may review your application (as opposed to a specialist in basic or laboratory science, for example).

Letter of Intent narrative references may be listed separately from the narrative but should not exceed two additional pages. They must be relevant, listed in the order in which they appear in the Letter of Intent, list the first author and all other authors. Only generic names of products/services are allowed; names of brand names and specific companies should not be used.

HTRS can help potential applicants looking for a research mentor with experienced HTRS investigators from the U.S. and Canada. To start the process, email jziegler@htrs.org.

b. **Full Proposals**

i. Invited 2024 MRA full proposals are due on or before **Monday, December 2, 2024, by 11:59 PM ET** and must be submitted via the HTRS SMA site at **https://htrs.smapply.org**. Research projects described in the full proposal must be substantially the same as the project described in the successful Letter of Intent, but some modifications are allowed (for example, a change to or addition of a sub-aim is permitted as long as it is reasonable in scope and does not substantially change the project's scope).

ii. Please refer to the Guidance for Applicants (below) and Evaluation Criteria (Section 6) when preparing proposals.

Components of Complete Full Proposal:

i. **Application Form:** Invited Full Proposal applicants are required to update the online Application Form originally submitted for their Letter of Intent.

ii. **Background and Career Goals Statement:** (2 pages maximum, PDF document)
The Statement should address the key domains and considerations listed above in Section 6. Points and should be clear, concise and well-written. Although many of these same points were required in the Letter of Intent, it is expected that the points will be further developed for the Full Proposal. A well-developed, clearly defined career development plan should address:

- What is the likelihood that the plan will contribute substantially to the scientific development of the applicant and lead to scientific independence?
- Are the content, scope, phasing, and duration of the career development plan appropriate when considered in the context of prior training/research experience and the stated training and research objectives for achieving research independence?
- Are there adequate plans for evaluating the applicant's research and career development progress?

iii. **Full Proposal Narrative:** (10 pages maximum, excluding references)
The Full Proposal Narrative should be submitted on the HTRS online grant submission site as a PDF document.

Although every effort is made to match reviewers' expertise to the type of proposal submitted, please prepare your narrative with the assumption that an academic or clinical hematologist may review your application (as opposed to a specialist in basic or laboratory science, for example).

The 10-page Full Proposal Narrative should address the five domains and considerations outlined above in Section 6: Candidate, Research Plan, Mentor(s), Co-Mentor(s), Environment and Institutional Commitment to Candidates, Pathway to Future Funding (including Career Development Awards). **The Career Development Plan/Career Goals, the sixth domain, should be addressed in the Background and Career Goals Statement.**

iv. **The applicant's current NIH Biosketch** (submitted online as a PDF document)

v. **The current NIH Biosketch for the primary mentor and co-mentor(s)** (if applicable). (Submitted online as a PDF document) The narrative portion of the Biosketch should describe the mentor's and co-mentor's prior mentorship experience.

vi. **Letter of support from the proposed primary mentor and the co-mentor(s) (if applicable),** (submitted online as PDF documents) addressed to the HTRS Scientific Review Committee, which should include the components outlined below.

vii. **Letter(s) of Institutional Support**, (submitted online as PDF documents) addressed to the HTRS Scientific Review Committee, which should follow the guidelines outlined below.

viii. **Project Budget** (submitted online as one PDF document)
The expenses below are permitted by HTRS as part of the project budget, which may not exceed a total of $165,000 USD. It is in the awardee's best interest if the budget total expenses are as close as possible to $165,000 USD so that the total grant award is used.

Full Proposal applicants are required to use the budget template provided by HTRS. Direct Project Costs not to exceed $151,800 USD, including but not limited to:

- Salary and fringe benefits for the applicant proportional to his/her percent effort on the project.
- Salary and fringe benefits for key personnel (laboratory technicians, statisticians, etc.) required to implement the research project
- Equipment and supplies necessary to fulfill the project's specific aims
- Registration, travel, and lodging fees for the Awardee to attend a well-recognized national or international professional meeting during the duration of their project or in the year immediately following the grant period to present the progress or results of their MRA-funded research. (MRA funds may not be used to cover registration, travel, or lodging expenses to attend professional meetings outside of the above-mentioned meeting, unless specifically approved by HTRS in advance as essential to the Awardee's project outcome.)
- Patient care costs if required for the study and not covered by third-party payments
- Human subjects payments
- Consultant costs for statistical or data management support

Institutional Management Costs/Indirect Costs/Facilities and Administrative Costs not to exceed $13,200 USD, including: Lab fees, facility fees, or other costs related to the management of the funded research program by the recipient institution. The line item for institutional management costs/indirect costs for the entire project budget may not exceed 8% of the $151,800 allocated to support the direct costs of the project, or $13,200 over two years ($6,600 per year). An applicant's two-year MRA project budget,

including directs costs of $151,800 and indirect costs up to $13,200 may not exceed a grand total of $165,000 USD. Please do not add an additional $12,000 for institutional management/indirect costs on top of the $165,000 maximum, as this will exceed the amount permissible for MRA project budgets.

Canadian applicants, see page 2 of this document for further specificity.

ix. **Addendum to Budget** (submitted online as one PDF document)

The applicant must provide a separate addendum to the budget template with the following information:

- An explanation and justification of each line item requested in the budget template.
- Other current and pending funding sources for the proposed project, if they exist. If so, indicate what expenses will be covered by the additional funding and whether there is any overlap between the expense categories of the MRA project budget and the other funding budget(s).
- A brief discussion of alternatives if this additional funding is not secured.

Guidance for Applicants on Preparing the Submission

1. **Candidate**
    - Candidate's Background: Describe your past scientific history, indicating how the award fits into past and future research career development

2. **Career Development Plan/Career Goals and Objectives**
    - Career Goals and Objectives
        - Describe your short-term and long-term career development goals
        - Justify the need for the award by describing how the career development award will enable you to develop and/or expand your research career
    - Candidate's Plan for Career Development/Training Activities During Award Period
        - Describe the new or enhanced research skills and knowledge you will acquire as a result of the proposed award, including, as applicable, expertise in rigorous research design, experimental methods, quantitative approaches and data analysis and interpretation
        - Describe any structured activities that are part of the developmental plan, such as coursework or workshops that will help you learn new techniques or develop needed professional skills
        - Briefly discuss each of the activities, other than research, in which you expect to participate
        - For each activity, other than research, explain how it relates to the proposed research and to the career development plan. Indicate the percentage of time to be dedicated to each activity by year
        - You are encouraged to include a timeline, including plans to apply for subsequent grants

3. **Research Plan:** For most types of research, the Research Plan Section should include:
    - A specific hypothesis
    - A list of the specific aims and objectives that will be used to examine the hypothesis
    - A description of the methods/approaches/techniques to be used in each aim
    - A discussion of possible problems and how they will be managed, and
    - Alternative approaches that might be tried if the initial approaches do not work

a) Significance
   - Explain the importance of the problem or critical barrier to progress that the proposed project addresses
   - Describe the strengths and weaknesses in the rigor of the prior research (both published and unpublished) that serves as the key support for the proposed project
   - Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice
   - Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved

b) Innovation
   - Explain how the application challenges current research or clinical practice paradigms
   - Describe any novel theoretical concepts, approaches or methodologies, instrumentation or interventions to be developed or used, and any advantage over existing methodologies, instrumentation, or interventions

c) Approach
   - Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project
   - Describe plans to address weaknesses in the rigor of the prior research that serves as the key support for the proposed project
   - Describe the experimental design and methods proposed and how they will achieve robust and unbiased results. Include how the data will be collected, analyzed, and interpreted, as well as any resource sharing plans as appropriate
   - For trials that randomize groups or deliver interventions to groups, describe how your methods for analysis and sample size are appropriate for your plans for participant assignment and intervention delivery
   - Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims
   - If the project is in the early stages of development, describe any strategy to establish feasibility, and address the management of any high-risk aspects of the proposed work
   - Explain how relevant biological variables, such as sex, are factored into research designs and analyses for studies in vertebrate animals and humans. For example, strong justification from the scientific literature, preliminary data, or other relevant considerations, must be provided for applications proposing to study only one sex
   - If you are proposing to gain clinical trial research experience (i.e., you will not be leading an independent clinical trial), briefly describe your role on the clinical trial

4. Mentor/Co-Mentor(s): Letter of Support

The mentor and co-mentor(s) (if applicable) must each supply a Letter of Support documenting their role and willingness to participate in the project and explain how they will contribute to the development of the candidate's research career. Each statement should include all of the following:

i. The plan for the candidate's training and research career development. Include information not only about research, but also about other developmental activities, such as seminars, scientific meetings, training in RCR, and presentations

ii. Discuss expectations for publications over the entire period of the proposed project. Define what aspects of the proposed research project the candidate will be allowed to continue to pursue as part of his/her independent research program

iii. The source of anticipated support for the candidate's research project for each year of the award period

iv. The nature and extent of supervision and mentoring of the candidate, and commitment to the candidate's development that will occur during the award period

v. The candidate's anticipated teaching load for the award period (number and types of courses or seminars), clinical responsibilities, committee and administrative assignments, and the portion of time available for research

vi. Describe the mentor's (or co-mentor's) previous experience as a mentor, including type of mentoring (e.g., graduate students, career development awardees, postdoctoral fellows), number of persons mentored, and career outcomes

vii. Note for co-mentor statements: Co-mentors must also address the nature of their role in the career development plan and how the responsibility for the candidate's development is shared with the mentor. Describe respective areas of expertise and how they will be combined to enhance the candidate's development. Also describe the nature of any resources that will be committed to this MRA

5. Environment and Institutional Commitment to Candidate's Research Career Development

The sponsoring institution must provide a document on institutional letterhead that describes its commitment to the candidate and the candidate's career development. It is also essential to document the institution's commitment to the retention, development, and advancement of the candidate during the period of the award.

The "Institutional Commitment to Candidate's Research Career Development" attachment should generally document the institution's agreement to provide adequate time, support, equipment, facilities, and resources to the candidate for research and career development activities. See the list below for specific items to include in the document.

In the document describing its institutional commitment, the applicant organization must:

i. Agree to release the candidate from other duties and activities so that the candidate can devote the required percentage of time for development of a research career

ii. Describe actions that will be taken to ensure that the candidate can devote the required time to research career development (e.g., reduction of the candidate's teaching load, committee and administrative assignments, and clinical or other professional activities for the current academic year)

iii. Describe the proportion of time currently available for the candidate's research and what the candidate's institutional responsibilities will be if an award is made.

iv. Describe how the institution will provide the candidate with appropriate office and laboratory space, equipment, and other resources (including access to clinical and/or other research populations) to carry out the proposed Research Plan.

v. Describe how the institution will be supportive of any proposed mentor(s), other staff, and/or collaborations with other faculty consistent with the career development plan.

For Fellows who will still be in Fellowship during the first and/or second year of the grant period, the letter of support should be from the fellowship program director, indicating: 1) why the applicant is an excellent candidate for an MRA; 2) that the applicant is in good standing and eligible for the award; 3) commitment of institutional support for the proposed project and 4) that 20% of the applicant's total time will be protected for the MRA while enrolled in his/her fellowship program.

For current Fellows who are in their last year of fellowship at the time of this submission, two letters of support are required: 1) Letter of support from the fellowship program director, indicating why the applicant is an excellent candidate for an MRA; and that the applicant is in good standing and will complete his/her fellowship by July 1, 2025); 2) Letter of support from the department chairperson or division chief, indicating why the applicant is an excellent candidate for an MRA; commitment of institutional support for the proposed project; agreement that 20% of the applicant's total time will be protected for the MRA during the two-year grant period (either funded from the MRA at the NIH salary cap or supported by departmental funds, or a combination of both). The letter must also include a discussion of the time and resources available to ensure the candidate will be able to pursue an academic career. If there is no additional protected time, the letter must explicitly state why there is no additional protected time and why the candidate will be able to succeed in a research career without this.

For current junior faculty applicants, the letter should be from the current department chairperson or division chief, indicating: 1) why the applicant is an excellent candidate for an MRA; 2) commitment of institutional support for the proposed project; and 3) agreement that 20% of the applicant's total time will be protected for the MRA during the two-year grant period (either funded from the MRA at the NIH salary cap or supported by departmental funds, or a combination of both). The letter must also include a discussion of the time and resources available to ensure the candidate will be able to pursue an academic career. If there is no additional protected time, the letter must explicitly state why there is no additional protected time and why the candidate will be able to succeed in a research career without this.

Full Proposal Logistics

If the applicant has questions related to the info below, please contact HTRS at jziegler@htrs.org at least seven days in advance of the Full Proposal deadline.

Submitted Full Proposals will be deemed ineligible if instructions are not followed:

i. Limit the Background and Careers Goals Statement to a maximum of two pages.
ii. Limit the Project Narrative to a maximum of 10 pages, excluding references.
iii. Place strategic importance on your Career Development Plan/Career Goals.
iv. Project Narrative references:
- May be listed separately from the narrative but should not exceed two additional pages
- Must be relevant

- Must be listed in the order in which they appear in the Full Proposal
- Must list the first author and all other authors
- Only generic names of products/services are allowed; names of brand names and specific companies should not be used

Additional Proposal Review Statement

The HTRS Scientific Review Committee performs the best possible reviews based on data submitted by each applicant. The Committee's goal is to invite only the most competitive Letter of Intents to the full proposal round to be considered for the limited pool of MRA funding. If a Letter of Intent is favorably reviewed, the applicant will be informed by HTRS about two months from the Letter of Intent submission date that a full proposal is requested.

Every effort is made to match reviewers' expertise to the proposals submitted; however, applicants should prepare project narratives with the assumption that an academic or clinical hematologist may review the application (as opposed to a specialist in basic or laboratory science, for example). Any reviewer with a direct conflict of interest (such as serving as a current mentor or co-mentor to one of the applicants) is recused from the entire review process. Any reviewer with an indirect conflict of interest (such as a close personal or professional relationship with any applicant, or previous involvement in any applicant's proposed project) is recused from reviewing the specific application in question.

Post-review, all applicants can expect to receive an NIH-style summary statement with scores along with the actual overall impact score. De-identified reviewer critique comments from primary and secondary reviewers will be shared. This NIH-inspired Summary Statement format is for educational purposes only and aims to strengthen grantsmanship.

Section 15: Sex and Gender-Based Analysis Considerations

As with the NIH, HTRS expects that sex as a biological variable will be factored into research designs, analysis, and reporting in vertebrate animal and human studies.

Section 16: Notification and Announcement of Award Recipients

Individual award notifications and the official announcement of all 2025 HTRS MRA recipients will be made no later than March 2025 for projects beginning on July 1, 2025 and extending through June 30, 2027.

HTRS will make every effort to disperse MRA funds for approved projects within 30 days of the date of execution of the legal grant agreement contract between HTRS and the recipient institution.

Questions?

Questions about the HTRS MRA Program or applying for an MRA should be directed to Jennifer Ziegler at jziegler@htrs.org.