



Request for Applications:

**Integrated Translational Health Research Institute of Virginia (iTHRIV)
2022 iTHRIV Scholars Mentored Career Development Program**

Release Date: October 1, 2021

The integrated Translational Health Research Institute of Virginia (iTHRIV) is a transformational, cross-Commonwealth collaboration that leverages the latest advances in data science to accelerate innovation in health-related research and facilitate team science. Partners within iTHRIV include Carilion Clinic, Inova Health System, the University of Virginia (UVA), and Virginia Tech, as well as affiliates the Center for Open Science (COS) and the UVA Licensing & Ventures Group. iTHRIV seeks to support highly qualified early career faculty for activities related to the development of a successful clinical or translational research career.

The iTHRIV Scholars Mentored Career Development Program aims to develop the next generation of clinical and translational researchers in principles of data science, the conduct of rigorous and reproducible science, and to promote team science as a means to enhance innovation and discovery in health-related research. iTHRIV announces the annual call for applications for this mentored career development program. **Proposals that demonstrate potential to integrate team science and data science in clinical or translational research are preferred.**

Applicant's home unit (department/college/institute) must commit to allow for 75% release time for research during the Scholars program (specific statement of protected time must be noted in the Letter of Intent). Reductions from 75% will be considered on a case-by-case basis; requests for exceptions must be noted in the Letter of Intent.

Eligibility:

- Applicants must have a *terminal* research or health-professional doctoral degree, including but not limited to M.D., D.O., D.V.M., Ph.D. or equivalent.
- Applicants must have a full-time faculty appointment at one of the iTHRIV partner institutions at the time of appointment to the program; the position cannot be contingent on obtaining appointment to the program. Faculty holding at least a 9-month appointment are eligible. **Please plan to provide the start date of your full-time faculty appointment according to your offer letter in your Letter of Intent.**
- Applicants must be a U.S. citizen or non-citizen national, or have documented permanent resident status.
- Applicants and their home units must commit faculty member's effort, as outlined above, to mentored research and career development activities. A letter of commitment from the applicant's unit or department head or chair must include a statement of commitment to protected time (the agreed upon amount) and a clear description of other activities (including the percent effort allocated to clinical responsibilities, on-call time, teaching, service, and/or administrative activities).
- Applicants who have previously received a career development award or a national, independent research award (as a faculty PI) covering more than 2 full calendar months of support in a year (e.g. NSF, NIH, AHA) are NOT eligible.

Applicants must identify at least one scientific mentor. The primary scientific mentor must provide a letter of support to be included with the application. More than one scientific mentor is permitted and encouraged as appropriate for the proposal.



Program Description:

The iTHRIV Scholars Mentored Career Development Program aims to develop the next generation of both clinical and translational researchers in principles of data science, the conduct of rigorous and reproducible science, and to promote team science as a means to enhance innovation and discovery. The iTHRIV Scholars Program is supported in part by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Number KL2TR003016. Scholars are selected annually to participate in the program, including two Scholars under the NIH KL2 award. Early career faculty candidates pursuing a career in clinical research or translational research from all departments in all colleges, schools, and institutes at an iTHRIV partner institution are eligible and are encouraged to apply. In seeking excellence through diversity of experiences and perspectives, we encourage members of historically underrepresented populations as defined by NIH (<https://diversity.nih.gov/about-us/population-underrepresented>) to apply.

In anticipation of a diverse cohort of Scholars representing a mix of backgrounds, prior training, and research focus, the iTHRIV Scholars Program is based in a common curriculum of clinical and translational research competencies, interwoven with data science principles, and professional development activities. iTHRIV Scholars will be expected to contribute to a learning community through participation in weekly educational sessions (currently Tuesday afternoons from 1-5 pm) with other Scholars. Attendance at these sessions is mandatory for the duration of the two-year structured program. Each iTHRIV Scholar will furthermore enhance the skills specific to his/her research and career development through an individualized learning plan. Applicants should include the integration of the iTHRIV Scholars Program curriculum in the overall learning plan for their proposal.

Individualized training may be accomplished through various methods including:

- The composition of a personal mentorship team. Mentors identified by the candidate are required to describe their commitment to the mentoring relationship, including a description of mentoring time and regular interactions with the candidate. The program also includes the addition of iTHRIV-appointed career development mentors to enhance the mentoring support for Scholars. iTHRIV-appointed mentors will be assigned to each iTHRIV Scholar during the period appointed to the program. Applicants are encouraged to list up to three additional areas of expertise (or individual faculty members) that would be welcome contributions to the proposed project or augment the applicant's career development plan.
- Translational experiences, which are individually selected by Scholars to broaden the Scholars' perspective and ability to communicate with stakeholders outside of their immediate scientific field.
- Coaching to achieve professional development goals.
- Opportunities for individualized course work (e.g. Master of Science in Data Science, Masters of Science in Clinical Investigation, Certificate in Implementation Science, etc.).

iTHRIV provides access to training in research informatics, data analysis and visualization, prediction modeling, open data resources and data sharing, the ethics and governance of big data, principles of commercialization, and scientific rigor and reproducibility. Applicants may consider the use of tools from the Center for Open Science (<https://cos.io/>) and the University Libraries of the partner institutions to enhance the reproducibility of their work.

During the period of appointment to the program, iTHRIV Scholars are expected to pursue an extramural mentored career development award and/or independent research funding with the goal of obtaining significant extramural funding by the end of two years. *If funding is not achieved*



within the 2-year appointment period, the applicant's home department or school or institute must fund a 3rd year of protected time to achieve extramural funding (exceptions must have prior approval). A letter of commitment from the applicant's unit or department head or chair confirming this support is required at the time of Letter of Intent. If a national career development award or major independent research grant is funded before the end of the iTHRIV program appointment, the iTHRIV Scholar is expected to continue to participate in iTHRIV Scholars programming, and financial support will transition to the extramural award (as allowed by the external award). An annual progress report is required of all iTHRIV Scholars.

This program will not support any application which contains a foreign component as defined by NIH Policy. Per NIH Policy, the definition of a foreign component is the performance of any significant scientific element or segment of a project outside of the United States, either by the recipient or by a researcher employed by a foreign organization, whether or not grant funds are expended. Activities that would meet this definition include, but are not limited to, (1) the involvement of human subjects or animals, (2) extensive foreign travel by recipient project staff for the purpose of data collection, surveying, sampling, and similar activities, or (3) any activity of the recipient that may have an impact on U.S. foreign policy through involvement in the affairs or environment of a foreign country. Examples of other grant-related activities that may be significant are:

- collaborations with investigators at a foreign site anticipated to result in co-authorship;
- use of facilities or instrumentation at a foreign site; or
- receipt of financial support or resources from a foreign entity.

Foreign travel for consultation is not considered a foreign component. If you have any questions about the appropriateness of your research with consideration of this foreign component restriction, please reach out to the contacts stated in the addenda.

The iTHRIV Scholars Mentored Career Development Program encourages applications with an emphasis on interdisciplinary team science. Proposals that incorporate, or have the potential to integrate, data science methods are preferred, and demonstration of the potential for *using data to improve health* is encouraged.

Instructions for Proposal:

Letters of Intent (LOI) are required and should be submitted via [this form](#) by 11:59pm on December 1, 2021.

Please include the title of the proposal, name(s) of scientific mentor(s), and a paragraph describing the intended proposed research including topic and probable methods (100-word limit) in the Letter of Intent. Any request for deviation from the 75% protected time and salary/fringe support must be noted in this LOI. A letter of commitment from the applicant's department head or chair, institute director or dean stating that the unit commits to protected time for up to **3 years** (as described above) is also required. **Please submit as one single PDF via the link provided above.**

Full applications are due by 8:00am on Tuesday, January 18, 2022.

A complete application adherent to NIH guidelines on [fonts](#) and [margins](#), submitted as a single PDF, must include:

- NIH Biosketch and other support for the applicant

- NIH Biosketch and other support for the applicant's scientific mentor(s)
- NIH Biosketches for key contributors to the applicant's proposed research and career development
- Proposal
 - Career Development Plan (6-page limit)
 - Describe applicant background
 - Career goals and objectives
 - Mentoring plan and proposed career development activities, **including how the iTHRIV Scholars Program fits into the applicant's/candidate's career development goals and objectives**
 - Specific Aims (research question(s)) (1 page)
 - Research strategy (6-page limit)
 - Include plan to assure scientific rigor and reproducibility (applicants may wish to consider resources offered by the Center for Open Science (<https://cos.io/>))
 - References cited (not included in the page limitations)
 - List up to three additional areas of expertise (or individual faculty members) that would be welcome contributions to the proposed project or augment the applicant's career development plan.
- Budget and Budget Justification
- Letters of support (6-page limit total for all letters)
 - Department chair (required; must include statement confirming protected time; participation in 4-hour weekly events, and guaranteed 3rd year of funding as described above). This could be the same or updated version of the letter of commitment submitted with applicant's LOI.
 - Primary scientific mentor (required; must include commitment to attend monthly Mentoring Hour discussions and other mentoring activities as available as well as their commitment to the mentoring relationship, including a description of mentoring time and regular interactions with the candidate – the greater the specificity the better)
 - Co-mentors, consultants and contributors to the project (required from co-mentors, consultants and contributors named in application; must include description of their commitment to the candidate, including a description of the time and activities planned – the greater the specificity the better)
- Description of Institutional environment and commitment (1 page)
- Human Subjects (see Addendum 1 below if applicable OR state N/A if not appropriate)
- Vertebrate animals (see Addendum 2 below if applicable OR state N/A if not appropriate)
- Training in the responsible conduct of research (1 page)
- Biohazards (state N/A if not appropriate)
- Conflict of Interest Disclosure
 - Indicate whether or not the research involves the evaluation or further development of intellectual property associated with the financial interests of the applicant, mentor(s), or other participants. Describe the plan for management of any potential conflict if applicable.

Applications should be submitted electronically on or before January 18, 2022 at 8:00 am. No applications will be accepted after this time/date. All interested applicants that submit a LOI will be emailed instructions and a link to complete their full application submission.

Key Dates:

- Request for Applications released: Friday, October 1, 2021
- Letter of Intent Due: Wednesday, December 1, 2021 at 11:59 pm (required)



- Full Applications Due: January 18, 2022 at 8:00 am
- Interviews by Invitation: Between March 1 and April 1, 2022
- Notification of Appointment: By April 30, 2022
- Appointment Begins: July 1, 2022

Information sessions will take place via Zoom on October 19th at 12:30 pm (as part of the iTHRIV Scholars Symposium, see [link](#) for registration), November 10th at 12:00 pm ([Zoom link](#)), and November 18th at 4:00pm ([Zoom link](#)).

Selection Criteria:

NIH Scoring criteria will be used to evaluate submitted proposals and determine candidates selected for interviews. Each of the following areas will be scored using the NIH nine-point scale:

- Overall impact
- Candidate
- Career development plan/career goals & objectives/plan to provide mentoring
- Research plan
- Mentors/consultants/collaborators
- Environment and institutional commitment to the applicant
- Additional Review Criteria:
 - Human Subjects
 - Vertebrate Animals
 - Biohazards
- Training in the Responsible Conduct of Research
- Potential for Integration of Data Science and Team Science Principles
- Approach to Scientific Rigor and Reproducibility

Reviews will be returned to applicants with the intent of providing feedback that will be helpful for all applicants (whether or not the proposal is funded) for future competitive proposals.

Applications with sufficiently high scores will progress to the interview stage, meeting with iTHRIV Scholars program leadership to discuss their project and career development plan. Both the scientific critique and the interview will factor into final selection.

Support for Applicants:

For questions, contact the iTHRIV Training Programs Manager, Amy Harrigan (acm6a@virginia.edu).

References for proposal content and selection criteria:

1. NIH Biosketch format, template: <https://grants.nih.gov/grants/forms/biosketch.htm>
2. NIH Research Career Development Program: <https://researchtraining.nih.gov/programs/career-development>
3. NIH Scoring Guidance for Career Awards:
https://grants.nih.gov/grants/peer/guidelines_general/scoring_guidance_training.pdf

The iTHRIV Scholars Program is supported in part by the National Center for Advancing Translational Sciences of the National Institutes of Health under Award Numbers KL2TR003016 and UL1TR003015. This content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

Addendum 1-Human Subjects

Exempt Research: For human subject research which meet one of the eight categories of research that are **exempt** under 45 CFR Part 46, please include the following in your proposal:

<https://www.hhs.gov/ohrp/regulations-and-policy/regulations/45-cfr-46/common-rule-subpart-a-46104/index.html>

1. Justification for the exemption

The applicant should include a justification for the exemption. This justification should explain how the proposed research meets the criteria for exemption claimed. Do not merely repeat the criteria or definitions themselves.

2. Human subjects involvement and characteristics

The applicant should include how humans subjects will be involved the proposed plan and the characteristics of those human subjects.

3. Sources of materials

The applicant should include the specific sources of materials to be utilized in the research project. This could include types of data or specimens. Please include the plan for securing these sources of material.

Non-Exempt Research: For **non-exempt** research that involves human subjects (projects which do not meet the criteria for exempt are, the following sections should be included:

1. Inclusion of Individuals Across the Lifespan

The applicant should include the proposed plans for inclusion of individuals of all age ranges. Individuals of all ages are expected to be included in all NIH-defined clinical research unless there are scientific or ethical reasons not to include them. The applicant should discuss whether individuals will be excluded based on age and provide a rationale for the minimum and maximum age of study participants, if applicable. Additionally, if individuals will be excluded based on age, provide a scientific or ethical rationale for their exclusion.

2. Inclusion of Women and Minorities

The applicant should include the proposed plans for inclusion (or exclusion) of individuals on the basis of sex/gender, race, and ethnicity. The applicant should describe the planned distribution and rationale for selection of subjects by sex/gender, racial and ethnic group, as well as describe the proposed outreach program for recruiting sex/gender, racial and ethnic group members.

3. Recruitment and Retention Plan

The applicant should include the proposed plan for recruitment and retention of all subjects involved in non-exempt research. The plan should describe both the planned recruitment activities as well as the proposed engagement strategies for retention.

4. Protection of Humans Subjects

The applicant should include a full description of the protection of human subjects. The following sections should be included:

1. Risk to Subjects

- a. Human subject involvement, characteristics, and design
 - *Briefly describe the overall study design.*
 - *Describe the subject population(s) to be included in the study; the procedures for assignment to a study group, if relevant; and the anticipated numbers of subjects for each study group.*
 - *List any collaborating sites where human subjects research will be performed, and describe the role of those sites and collaborating investigators in performing the proposed research.*

- b. Study procedures, materials and potential risks
 - *Describe all planned research procedures (interventions and interactions) involving study subjects; how research material, including biospecimens, data, and/or records, will be obtained; and whether any private identifiable information will be collected in the proposed research project.*
 - *For studies that will include the use of previously collected biospecimens, data or records, describe the source of these materials, whether these can be linked with living individuals, and who will be able to link the materials.*
 - *Describe all the potential risks to subjects associated with each study intervention, procedure or interaction, including physical, psychological, social, cultural, financial, and legal risks; risks to privacy and/or confidentiality; or other risks. Discuss the risk level and the likely impact to subjects.*
 - *Where appropriate, describe alternative treatments and procedures, including their risks and potential benefits. When alternative treatments or procedures are possible, make the rationale for the proposed approach clear.*

2. Adequacy of Protection Against Risk

- a. Informed Consent and Assent
 - *Describe the process for obtaining informed consent. Include a description of the circumstances under which consent will be sought and obtained, who will seek it, the nature of the information to be provided to prospective subjects, and the method of documenting consent. When appropriate, describe how potential adult subjects' capacity to consent will be determined and the plans for obtaining consent from a legally authorized representative for adult subjects not able to consent.*
 - **For research involving children:** If the proposed studies will include children, describe the process for meeting HHS regulatory requirements for parental permission and child assent ([45 CFR](#))

[46.408](#)). See the HHS page on [Research with Children FAQs](#) and the NIH page on [Requirements for Child Assent and Parent/Guardian Permission](#).

- If a waiver of some or all of the elements of informed consent will be sought, provide justification for the waiver. Do not submit informed consent document(s) with your application unless you are requested to do so
 - b. Protection against risk
 - Describe planned strategies for protecting against or minimizing all potential risks identified, including strategies to manage and protect the privacy of participants and confidentiality of research data.
 - Where appropriate, discuss plans for ensuring necessary medical or professional intervention in the event of adverse effects on participants.
 - Describe plans for handling incidental findings, such as those from research imaging, screening tests, or paternity tests.
 - c. Inclusion of vulnerable subjects (if relevant)
 - Explain the rationale for the involvement of special vulnerable populations, such as fetuses, neonates, pregnant women, children, prisoners, institutionalized individuals, or others who may be considered vulnerable populations. 'Prisoners' includes all subjects involuntarily incarcerated (for example, in detention centers).
 - **Pregnant Women, Fetuses, and Neonates or Children**
If the study involves vulnerable subjects subject to additional protections under Subparts B and D (pregnant women, fetuses, and neonates or children), provide a clear description of the risk level and additional protections necessary to meet the HHS regulatory requirements.
 - **Prisoners**
If the study involves vulnerable subjects subject to additional protections under Subpart C (prisoners), describe how proposed research meets the additional regulatory requirements, protections, and plans to obtain OHRP certification for the involvement of prisoners in research.
3. Potential benefits of the proposed research to human subjects
 - Discuss the potential benefits of the research to research participants and others.
 - Discuss why the risks to subjects are reasonable in relation to the anticipated benefits to research participants and others.
 - **Note:** Financial compensation of subjects should not be presented as a benefit of participation in research.
4. Importance of knowledge to be gained
 - Discuss the importance of the knowledge to be gained as a result of the proposed research.
 - Discuss why the risks to subjects are reasonable in relation to the importance of the knowledge that reasonably may be expected to result.

Addendum 2-Vertebrate Animal Research

Vertebrate Animals

For projects which involve live vertebrate animals as part of the project, please include the following in the proposal:

- (1) Description of proposed procedures involving animals, including species, strains, ages, sex, and total number to be used;
- (2) Justifications for the use of animals versus alternative models and for the appropriateness of the species proposed;
- (3) Interventions to minimize discomfort, distress, pain and injury
- (4) Justification for euthanasia method if NOT consistent with the AVMA Guidelines for the Euthanasia of Animals.

Virginia Tech – Carilion (VTC) Applicant Addendum

All Virginia Tech and Carilion Clinic applications to the Scholars program will be considered for KL2 funding support that is available from the CTSA/NIH. This limited CTSA/NIH funding will support a total of 2 new Scholars selected from among all of the VT, Carilion Clinic, and UVA applications.

Application Options

Applicants from Virginia Tech and Carilion Clinic may apply in one of two ways:

1. Applicant competing for a KL2 spot only:

Applicant must provide a letter from department chair, dean, or institute director that includes the following support if the applicant is selected:

- a) 75% research release time for each year of the two-year award. Reductions from 75% will be considered on a case-by-case basis; requests for exceptions must be noted in the Letter of Intent.
- b) Commit to funding the applicant's salary/fringe, the continued release time, and consideration of \$50,000 for expenses (including supplies, Scholar travel, training/tuition, etc.) for a third year if extramural funding is not obtained by the end of year 2 of the award.

2. Applicant competing for a KL2 spot or institutionally sponsored spot:

If the applicant is not selected for a KL2 spot, the top-ranked applicants may utilize support from the university or hospital to fund her/his participation in the program. Applicant must provide a letter from department chair, dean, or institute director that includes the following support if the applicant is selected or ranked highly:

- c) Funding for salary/fringe and 75% release time for each year of the two-year award. Reductions from 75% will be considered on a case-by-case basis; requests for exceptions must be noted in the Letter of Intent.
- a) \$50,000 in research-related expenses (including supplies, Scholar travel, training/tuition, etc.) for each year of the two year award,
- b) Commit to funding the applicant's salary/fringes, the continued release time, and consideration of \$50,000 of expenses (including supplies, Scholar travel, training/tuition, etc.) for a third year if extramural funding is not obtained by the end of year 2 of the award.

Selection Process

Scholar applications are centrally accepted and distributed to study sections made up of experienced reviewers from Virginia Tech, Carilion Clinic, and UVA. Each application will have a minimum of 3 reviewers. Applicants will be invited for an interview based on these reviews. The top 2 ranked applicants among all of the applications are selected for the KL2-funded Scholar seats. Additional Scholar seats are selected in rank order based on sponsorship and program staff/mentor availability.

Questions

General questions specific to being a VTC Scholar should be directed to Dr. Leanna Blevins at (540) 526-2191 or leannab@vt.edu.

Questions specific to applicants employed by Virginia Tech should be directed to Dr. Leanna Blevins at (540) 526-2191 or leannab@vt.edu. All Virginia Tech applicants must contact Dr. Blevins early during consideration of a submission and before submission of all applications.

Questions specific to applicants employed by Carilion Clinic should be directed to Dr. Paul Skolnik at (540) 853-0154 or prskolnik@carilionclinic.org. All Carilion Clinic applicants must contact Dr. Skolnik early during consideration of a submission and before submission of all applications.