

# Application Guidelines for the 2022 Ludeman Center Women's Health Innovation Scholar Program (WHINS)

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## Table of Contents

<b><i>About the Ludeman Family Center for Women's Health Research</i></b> .....	<b>3</b>
<b><i>Women's Health Innovation Scholar (WHINS) Description</i></b> .....	<b>3</b>
Application Review and Timeline.....	3
Applicant Eligibility .....	4
Scope of Proposal.....	4
Grant Conditions, Reporting and Ludeman Center Affiliation Requirements .....	4
Review Criteria.....	5
<b><i>Application Process</i></b> .....	<b>5</b>
<b>Full Application Instructions</b> .....	<b>5</b>
Format Instructions .....	6
Section Descriptions .....	6
<b>LOI and Full Application Submission</b> .....	<b>7</b>
<b>Leadership and Committees [internal only]</b> .....	<b>7</b>
<b>Questions</b> .....	<b>8</b>

## About the Ludeman Family Center for Women's Health Research

The Ludeman Center envisions a future in which research includes women and accounts for sex and gender differences, shaping better healthcare for all. Today, the Ludeman Center is regarded as one of the best places to conduct research that includes women and considers the distinct but linked concepts of sex (chromosomal, physiological, biological) and gender (psychological, social and cultural) differences. Our research is making a difference through diagnosis, prevention, like preventing obesity and treating diabetes in adolescent girls, and treatments, such as technological advances to better identify and treat heart failure in women. Our dedication to career development for early-career researchers is growing the women's health research field and workforce, expediting progress on closing the knowledge gap. Our unique commitment to community involvement is helping women and their healthcare providers to make informed healthcare decisions.

The three-part mission of the Ludeman Center is to conduct groundbreaking research in women's health and sex differences with focus areas including cardiovascular disease, diabetes and mental health as it integrates with physical health. To fund, mentor and train early-career scientists who plan to have research careers focused on women's health research and/or sex differences research. To educate the community and healthcare providers about women's health and sex differences.

## Women's Health Innovation Scholar (WHINS) Description

The goal of the WHINS program is to support early-career scientists at the Ludeman Family Center for Women's Health Research at University of Colorado who aim to impact patient care by accelerating women's health or sex/gender differences research in the focus areas of cardiovascular disease, diabetes/metabolism and/or the intersection of mental and physical health. This program provides grant support, mentoring and training for early-career scientists pursuing a career in women's health or sex/gender differences research. For this award mechanism, a mentor and a career development plan are required. Priorities will include, but will not be limited to proposals that illustrate a pathway for translation to patient care. WHINS program includes up to \$100,000 of salary support (plus benefits) guaranteed for two years, with a 3rd being negotiable, plus \$35,000 in annual project support funds. Two WHINS positions may be awarded in this cycle.

## Application Review and Timeline

- The award selection process involves two stages: (1) a **letter of intent** to narrow the pool to the applicants and projects most in line with the scope of WHINS; (2) a **full proposal** to select the award recipients.
- A letter of intent and full proposal must be submitted that meet all application guidelines; otherwise, applications will be administratively rejected.
- Proposals will be reviewed by independent, scientific experts in a rigorous peer-review process.

<b>CALL FOR LOI</b>	March 17, 2022
<b>LETTER OF INTENT DUE</b>	March 31, 2022 by 5:00 p.m. MT
<b>INVITATION TO SUBMIT FULL PROPOSAL</b>	By April 13, 2022
<b>APPLICATION DUE</b>	May 9, 2022 by 5:00 p.m. MT
<b>AWARD NOTIFICATION</b>	By June 1, 2022
<b>PROJECTED START/END DATE</b>	July 1, 2022/June 30, 2024

## Applicant Eligibility

If eligibility questions remain after reviewing these guidelines, please email [carly.pilius@cuanschutz.edu](mailto:carly.pilius@cuanschutz.edu).

- Applicants must have an MD, PhD or DO. Eligible candidates may be at the postdoctoral fellow, instructor, or assistant professor level within their first three years. Clinical scholars must hold an MD, DO or PhD in psychology, have completed their clinical training, and demonstrate a commitment to pursuing a successful career involving research in women's health or sex/gender differences. Eligible candidates cannot have an R or K level grant or equivalent.
- Applicants must have a commitment from the department chair/division chief at the time of grant submission for a tenure-track assistant professor position to start within one year of receiving the award, with which office and laboratory space must be provided.
- Each successful candidate will be required to commit 75% for MDs or 100% for PhDs of their time to research. This arrangement is confirmed with a letter to the department and division chairs of all accepted WHINS Scholars with clinical obligations. A signed letter from these individuals agreeing to the terms of support is required for this award.
- Applicant's department chair must agree to fund \$10,000 per year of funding awarded (independent of salary gap augmentation).
- Applicant's department chair must commit to providing salary above the \$100,000 limit from WHINS if there is a salary gap.
- Applicants may have project budget items that include personnel, supplies, travel, training/career development, equipment. Indirect costs are not allowed.
- Applicants may have research grants from other funding sources during the award period, but there must be clear documentation of mechanisms to avoid scientific and budgetary overlap.
- Applicants may be from any school/college within the University of Colorado Anschutz Medical Campus.
- Applicants do not need to be United States citizens.

## Scope of Proposal

- Proposals must fall within the scope of the Ludeman Family Center for Women's Health Research mission, focused on women's health or sex/gender differences research in the broad areas of cardiovascular disease, diabetes/metabolism, and/or the intersection of mental and physical health.
- Proposals may consist of research across basic, translational and/or clinical research, epidemiological or implementation science. Thus, there are no restrictions to the type of science or methodology.
- Preference will be given to innovative projects that illustrate a pathway for translation to patient care.

## Grant Conditions, Reporting and Ludeman Center Affiliation Requirements

- Signed letter of agreement.
- A progress report is due detailing progress-to-date after each year of funding.
- A final report is due discussing the overall results and outcomes at the conclusion of funding. Report must state findings, expenditures, impact on patient care (if applicable) and publications/presentations which acknowledge Ludeman Center funding.
- No-cost extension requests are allowed upon approval by the Ludeman Center Director upon advice from the WHINS Program Director at the end of the award period for up to one year.
- Publications, presentations and posters featuring results of this funding should acknowledge "Ludeman Family Center for Women's Health Research (Grant #)".
- Weekly meeting between WHINS Scholar and scholar's primary mentor(s).
- Meeting for WHINS Scholar every six weeks with program director or co-director.
- Meeting for WHINS Scholar every six months with scholar's mentoring team and program leadership.

- WHINScholars will meet monthly to receive training by a faculty expert in a particular unit of the required Ludeman Center curriculum, which includes academic skills, career development skills and trainings focused on considering sex and gender at all steps of research from design to analysis.
- Biennially WHINScholars will participate in the Ludeman Center National Conference.
- Additional training opportunities may include, but are not limited to;
  - Training in methodologies, e.g., bioinformatics
  - Participate in I-Corps@CCTSI and SPARK education sessions.
- Additional didactic educational opportunities will vary by WHINScholar.
- Complete Coursera [Researcher Management & Leadership Training](#) online course, as well as the NIH, Office of Research on Women's Health: [Sex as a Biological Variable: A Primer](#) online course.
- Annual submission of updated biographical sketch and CV and response to the Ludeman Center Researcher Productivity Survey.
- Occasional presentations to community groups, Ludeman Center supporters or other constituents regarding your work.

## Review Criteria

Criteria to be used for selection of WHINScholars include:

1. Evidence of a high level of scholarship/strength of CV
2. Clarity of the vision of both applicant and mentor as to career goals (including timeline for grant applications/publications and translating to patient care or commercial potential)
3. Commitment to research in women's health or sex/gender differences
4. Statement of impact
5. Evidence of innovation in proposed project
6. Strength of science/research plan proposed
7. Clear evidence of career support from the department chair
8. Strength of mentorship plan
9. Strength of the applicant's ability and proposed project to translate to patient care
10. Ability of the proposed project to eventually form the basis for an independent research program
11. Excellence of the letters of recommendation
12. Excellence of training and, for clinician-scientists, board eligibility or completion

Copies of all accepted applications will be made available to all members of the selection committee, and each candidate will be evaluated in detail by at least two members, with written reviews provided. Review assignments will be made by the Ludeman Center director. After full selection committee discussion, priority scores will be assigned, and the scores averaged and ranked. Any selection committee member with a conflict of interest will leave the room during the entire review and discussion of the applicant. Applicants will be notified in writing of the outcome of the review and sent edited written reviews as soon as feasible.

## Application Process

### Full Application Instructions

Full applications are by invitation only, upon acceptance of the LOI. Applicants will be notified by April 13, 2022 if their LOI will advance to a full application.

## Format Instructions

- **PAGE HEADER:** All pages of the application should be numbered; the name of the principal investigator should appear in the upper right-hand corner of each page.
- **FORMAT:** Follow NIH format guidelines: Arial, Helvetica, Palatino Linotype, or Georgia fonts with a font size of 11 points or larger with a minimum of ½ inch margins.
- **ORDER & LENGTH:** The order of the application should be followed, adhering to the maximum number of pages allowed for each subsection indicated in parentheses (see below).
- No appendices allowed.
- Create a **single PDF** for all sections and biographical sketch(es) and email to [carly.pilius@cuanschutz.edu](mailto:carly.pilius@cuanschutz.edu).

## Section Descriptions

- **Cover Page (1 page):** Include a cover page with the PI name, contact information (phone/email), faculty rank, department/division/school, project title and lay summary.
- **Table of Contents (1 page):** Provide a table of contents with page numbers to the corresponding sections. If possible, hyperlink the table of contents to the sections.
- **Personal Statement (1 page):** Describe your overall career goals and your commitment to women's health or sex/gender differences research, outline personal strengths that will ensure success in this endeavor, and state why you and this project should be chosen for the program. Define the translational potential of your proposed project and what you hope to accomplish during this two-year funding period. Describe how support from the Ludeman Center's WHINS program is critical to accomplish your research goals as well as how the program will propel your career forward.
- **Research Experience (2 pages maximum):** A description of the applicant's research experience (2 pages maximum). The section should describe prior projects/experience that demonstrate the applicant's ability to perform clinical, translational, epidemiological or basic research. Please include references (not subject to page limit).
- **Career Development Plan (2 pages):** A description of the applicants mentoring and training plan. The mentoring plan must identify a primary mentor who is currently a full or associate professor and explain why they have chosen the mentor, what their qualifications are and how they will work together. The primary mentor must work in one of the areas of focus outlined above, be externally funded through peer-review and author of a pertinent scientific area. The mentoring team must include a mentor who focuses on women's health and/or sex/gender differences research and include a member scientist of the Ludeman Center. The proposed primary mentor must write a letter of support for the applicant stating her/his willingness to serve in this role and outlining the mentorship plan including how often they will meet and skills they anticipate sharing. The training plan must describe a plan for professional activities/responsibilities during the award period and explain how these will contribute to career growth and progression and include strategies, continued education and future research. The training plans of the applicant regarding coursework and other elements needed to help the applicant gain necessary skills in their chosen field and/or to translate their ideas to patient care.
- **Institutional Commitment (1 page):** A letter from the applicant's department chair or division chief confirming that the applicant will have at least 75% time for MD/DO's and 100% for PhD's for pursuit of her/his research program, mentoring support for the applicant and what start-up funding, laboratory facilities, office space and equipment are dedicated to this project. In addition, this letter should provide assurance that the applicant is entering into a tenure-eligible position (preferably assistant professor) and

set forth the other means by which the department/division will support the applicant's proposed research program during and after the period of WHINS support. This must include an agreement to support the balance of the scholar's salary if not fully covered by the WHINS as well as an annual commitment of \$10,000 towards project support for the scholar during the period funded by the WHINS (independent of the salary gap augmentation).

- **Scientific Abstract (0.5 page):** Summarize the research objectives and rationale.
- **Impact Statement (0.5 page):** State how this project is a novel approach, how and in what time frame it may impact patient care and describe the commercial potential, if any.
- **Budget and Justification (2 pages):** Outline expenses for the duration of the award and provide written justification.
- **Biographical Sketch(es):** Use the NIH five-page biographical sketch format for the principal investigator and mentor.
- **Research Plan (5 pages):** Describe the research plan for the proposed project period.
  - **Specific Aims (1 page):** Describe the specific aims and hypotheses that inform your research project.
  - **Significance (0.5 page):** State the significance of this proposed research with respect to women's health or sex/gender differences research and the potential for clinical impact.
  - **Impact (0.5 page):** Describe, including projected timeframe, the innovation proposed in this project, how it will translate to patient care and/or what is the commercial potential. List any invention disclosures, patents or other intellectual property activity related to this project.
  - **Approach (3 pages):** Describe the experimental approach to the research question and how it will be accomplished during the funding period. Include a timeline with deliverables and feasibility, which includes any preliminary studies pertinent to the project, as well as anticipated problems and plans to address these issues. References can take up to one additional page.
  - **Literature Cited (no limit):** Use Vancouver or NIH style (numbered citations within text) format.
- **Letters of Recommendation/Support:** Include a minimum of three (but no more than five) letters of recommendation. One of these letters should come from the applicant's proposed mentor; another should come from the department chair. These should be submitted directly to [carly.pilius@cuanschutz.edu](mailto:carly.pilius@cuanschutz.edu).
- **Mentor Letter:** State the relationship with the applicant; mentor experience; importance of the proposed project; strength and potential of the applicant and project to transition to independence, receive follow on funding and/or impact patient care; financial and/or institutional support of the applicant/project; why this program is necessary to forward their career; and mentoring plan that aligns with the training plan.

## LOI and Full Application Submission

Submit the full application as one PDF to [carly.pilius@cuanschutz.edu](mailto:carly.pilius@cuanschutz.edu). Include the name of the applicant and award program in the email subject line. Letters of reference may be included in the application package or submitted directly by the recommenders to [carly.pilius@cuanschutz.edu](mailto:carly.pilius@cuanschutz.edu).

## Leadership and Committees [internal only]

1. Program Director will design program structure, appoint committee membership, lead the Selection Committee and serve as mentor and resource to scholars, including addressing issues of protected time.
2. Co-Director will lead the Advisory, Evaluation and Tracking Committee and serve as a mentor and resource to scholars, including addressing issues of protected time.

3. Ludeman Center Deputy Director will lead the development and implementation of the program and provide ongoing operational oversight and advisory support.
4. Program Administrator (Ludeman Center Research Program Lead) will coordinate and administer the program: prepare announcements, applications, agreements, minutes and reports; coordinate program schedule and committee meetings; measure, track and report program metrics.
5. Committees
  - a. Selection Committee will follow NIH style peer-review process in the selection of scholars.
  - b. Advisory, Evaluation and Tracking Committee will meet semiannually or as required. The committee will consist of the Program Director and other program personnel, Ludeman Center Deputy Director, Program Administrator and Executive Director CU Innovations.

## Questions

For questions, please email contact Carly Pilius at [carly.pilius@cuanschutz.edu](mailto:carly.pilius@cuanschutz.edu) or call 303.724.0305.