



Overview Information

Funding Opportunity Title	Path to K Mentored Career Development Grant Request for Applications
Funding Opportunity Purpose	<p>The OSU Center for Clinical and Translational Science (CCTS), the Office of Health Sciences, and the College of Medicine are seeking applicants to apply to an innovative career development program whose purpose is to train clinical investigators and prepare them for a successful K grant application. The CCTS OHS and College of Medicine Path to K Program supports the career development of investigators who have made a commitment to conduct either patient-oriented or translational research. The Path to K Grant is available for a period of up to two years (contingent on satisfactory progress).</p> <p>Early career junior faculty on the tenure or clinical track from the following health sciences colleges at the Ohio State University are eligible to apply: College of Dentistry, College of Medicine, College of Nursing, College of Optometry, College of Pharmacy, College of Public Health, and College of Veterinary Medicine.</p> <p>The CCTS seeks proposals that address scientific questions consistent with the CCTS mission to transform and advance the discipline of clinical and translational science at The Ohio State University. Proposals may come from any stage of research along the path from the biological basis of health and disease to interventions that improve the health of individuals and the public, as described in NIH NCATS' Translational Science Spectrum.</p>

Key Dates*

Release Date	August 26, 2021
Letter of Intent Due Date	October 10, 2021, midnight at < https://go.osu.edu/pathtokloi >
Full Application Due Date	Dec. 22, 2021, midnight at < https://go.osu.edu/pathtokapplication >
Study Section	February 2022
Notice of Award Date	March 30, 2022, or as close as possible
Funding Period	July 1, 2022 to June 30, 2023; renewable for one year thereafter based on satisfactory progress.

*some dates may vary because of unanticipated circumstances

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Information Session: Path to K Career Development Grant

Date: September 14, 2021
Time: Noon to 1 PM
Place: CCTS, Prior Hall Suite 260 and Zoom
Register Here: https://go.osu.edu/path_to_k_info

Section I. Funding Opportunity Description

Purpose

The Path to K grant is designed to benefit a wide spectrum of clinical and/or translational researchers across OSU. The grant provides salary support to ensure protected time for mentored research and didactic training in clinical/ translational research across a wide variety of project topics and academic areas. The overall goal of the program is to equip early career investigators to advance on the path to be competitive for NIH K Career Development Grants (or equivalent).

The CCTS supports the full spectrum of clinical and translational research intended to have human applications. In this context, "translational" investigation is broadly defined. It includes, for example, laboratory research with potential human applications, "bench to bedside" research in which laboratory findings are studied in the human context, the interaction of small human studies with those in larger populations, and the translation of research into clinical practice and health policy.

Program Preference will be given to junior faculty members on the tenure or clinical track with fewer than three years since their appointment, but junior faculty with three or more years since their appointment ~~and research scientists with a research track record~~ are eligible to apply.

It is anticipated that up to four grants will be made:

- Up to two grants will be awarded to applicants from the Colleges of Dentistry, Nursing, Optometry, Pharmacy, Public Health, and Veterinary Medicine. The funds for these awards are courtesy of the OSU Office of Health Sciences.
- Up to grants will be awarded to physician-scientists from the College of Medicine. These grants are funded by the College of Medicine Office of Research (COM OR) and the Richard P. and Marie R. Bremer Medical Research Fund and the William H. Davis Endowment for Basic Medical Research.

Applicants will be selected based on a competitive application process in which the following will be key review considerations that determine funding:

- The transdisciplinary/translational science and quality of the research project
- The qualification of the applicant
- The experience of the mentorship team
- The quality of the training plan
- The probability of the proposed project developing into a competitive K grant application

A Study Section will make recommendations to the CCTS Executive Committee for the funding of up to two scholars. All applicants will receive reviewer comments on their applications.

Please note the following requirements:

- To be considered, all applicants must submit the required Letter of Intent form by 11:59 PM on the date noted above using the online form indicated above.
- Applicants must complete all sections of the entire application. Applications are due by 11:59 PM on the date noted above using the online form indicated above.
- No late LOI or applications will be accepted.

(Note: The CCTS fund two career development programs for junior faculty: the Path to K and the KL2 Awards. See Appendix 1 of this document for a comparison of the two programs.)

Please direct all questions to the Program Manager, Stuart Hobbs at 614-685-5972 or stuart.hobbs@osumc.edu

Benefits of the Path to K Grant

- Funds up to \$50,000 to cover:
 - Salary support for up to a 10% FTE appointment to this grant (up to salary cap of \$15,000 maximum) for the applicant plus relevant fringe.
- A 10% match of salary and fringe from the applicants home department/division/college to create a total of 20% release time from clinical and other duties to devote to research and training
- Individualized career development and mentorship from the trainee's own appointed scientific committee.
- Support to develop an individual K grant to fund research at the conclusion of the Path to K funding.
- The CCTS will be providing other project resources. These include, but are not limited to:
 - Project management
 - Infrastructure services
 - Problem-solving
 - Financial tracking
 - Opportunities to disseminate research (posters and presentations)
 - Tools of the Trade seminars
 - Lunch and Learn seminars

Expectations of Path to K Grantees

- Commit 20% of your effort to the Path to K Grant.
- Your participation in various CCTS / Path to K activities will be required:
 - A monthly Lunch and Learn program
 - Attendance at The Business of Science, a three-day workshop held during Fall Semester (next scheduled event fall 2022)
 - A meeting with the Translational Therapeutics Think Tank (T4) to discuss your project, particularly any challenges you encounter (<https://ccts.osu.edu/content/translational-therapeutics-think-tank-t4-0?highlight=T4>)
 - Attendance at the annual meeting of the Association for Clinical & Translational Science (ACTS, held in April)
 - Participation in the Annual CCTS Scientific Meeting
 - Mentor training, if your mentor has not already participated in the CCTS training
- Grantees will have the opportunity to attend CCTS Tools of the Trade workshops relevant to their career development needs and will be strongly encouraged to attend one of the College of Medicine-supported Office of Research grant writing workshops or K workshops.
- Interim progress reports and a final project closure report must be submitted to the CCTS. These will include:
 - Responses to reviewer criticisms stated in your award letter must be addressed in these reports.
 - Your progress in meeting the milestones described in your application must also be addressed in these reports.
- Short yearly progress reports will be required each year after the grant for tracking data for the CCTS success metrics for 3 years following the end of the grant. This is required for our NIH metrics of success and reports.

Other Requirements

- No Path to K scholar or mentor will be permitted to work on any project involving live vertebrate animals or human subjects that has not been approved by the IACUC and/or IRB, as appropriate. If any scholar undertakes a project that includes human subject research studies, these must conform to the NIH policies on the inclusion of women, minorities, and children in study populations. Funds for non-compliant projects will be withheld.
- IRB or IACUC approval (if required) must be obtained prior to release of funds. If IRB/IACUC is not in place, regulatory approval must be obtained within 60 days of grant start date noted at the top of this RFA.

- OSU CITI training in Human Subjects Protection and Responsible Conduct of Research as well as Good Clinical Practice certification must be completed by all research personnel who have access to personally identifiable data collected as part of this study. This requirement includes the Path to K Scholar, as well as research staff funded by the award, if any. These modules are available at <http://orrrp.osu.edu/irb/training-requirements/>
- Grant recipients must promote objectivity in research by establishing standards that provide a reasonable expectation that the design, conduct and reporting of research funded by the grant will be free from bias resulting from an Investigator's Financial Conflict of Interest.
- All scholars appointed to this grant who are involved with human subjects must have completed education on the protection of human subjects and Good Clinical Practice (GCP) in accordance with NIH policy.
- Any individual involved in the design and conduct of a study not included in any certification must satisfy this requirement prior to participating in the project.
- Signed letter of offer and cost overrun form must be received prior to the release of funds. This form includes a requirement for department chartfield information to accommodate possible overrun of the Path to K account

Section II. Eligibility Information

Eligible Applicants

- Applicants must be considered a principal investigator. Eligibility information can be found at the OSU Office of Research website. < <https://research.osu.edu/building-your-research-program/becoming-principal-investigator> > Residents and clinical and postdoctoral fellows are not eligible.
- Applicants must be from one of the following colleges: College of Dentistry, College of Medicine, College of Nursing, College of Optometry, College of Pharmacy, College of Public Health, and College of Veterinary Medicine
- College of Medicine applicants, as required by the two endowments funding the College of Medicine arm of this program, must have an MD degree with a record of engagement in active clinical practice and be physicians credentialed by the OSU Wexner Medical Center. Individuals with dual degrees are eligible as long as one is an MD (acceptable examples: MD, PhD; and MD, MPH; MD, MS; etc.). Candidates must have faculty appointments and PI status at The Ohio State University. Residents, clinical fellows and post-doctoral fellows are not eligible to apply.
- Applicants may not have previously been a PI on a NIH individual or institutional K Grant or an R01 or an equivalent non-PHS grant with more than \$100,000 in direct costs
- Applicants must commit to spending 20% effort engaged in conducting the research supported through this grant. The Path to K Grant will compensate 10% of the committed time (up to salary cap of \$150,000), with the remained cost-shared by the college/department/division (as appropriate to the pattern of administration of the grantee's home unit). The dean or department/division chair must sign the signature page agreeing to the release time and cost sharing should the applicant be funded.
- Applicants and mentors must become CCTS members. Go to ccts.osu.edu and click on <Become a Member>.

Section III. Application and Submission Information

This grant program involves a two-phased application process: a Letter of Intent to Apply (LOI) and a Full Application.

This funding announcement will serve as the instructions and guidelines for both the LOI and the Full Application submissions.

Phase One: Letter of Intent

To be eligible, it is required that you indicate your intention to apply via the Letter of Intent through an online REDCap form, which can be found at the text and hyperlinked web address.

The purpose of the Letter of Intent is twofold:

1. To let program staff know of your intent to apply for the Path to K Grant in order that they may organize the Study Section.
2. So applicants can fill-out the eligibility checklist to know that they are eligible.

All Letters of Intent must be submitted through the online process by 11:59 PM EST on the date at the top of this RFA. **No late Letters of Intent will be accepted.**

The process of completing the eligibility checklist will clearly tell you if you are eligible to go on to apply for the Path to K. You should review carefully the eligibility criteria found at the top of this page before applying.

Staff will use the information you submit about your project to organize the Path to K Study section. The information about your project that you submit in the Letter of Intent will not undergo scientific review. **Do not expect further contact from project staff after submitting the Letter of Intent.** If you answered the eligibility questions accurately, and did not receive an ineligible notice, you should be eligible to apply. If there are any issues in your LOI, CCTS staff will contact you within in 7 days.

If you have questions or concerns, **please contact the Program Manager, Stuart Hobbs at 614-685-5972 or stuart.hobbs@osumc.edu**

Phase Two: Full Application

This funding announcement will serve as the instructions and guidelines for Full Application submissions

Applications and supporting materials are to be submitted **by 11:59 p.m. EST on the date noted at the top of this RFA. No late applications will be accepted.**

Please read these instructions carefully before going online to apply. The application must be completed and submitted online at the web address noted on page 1 of this document. The application process is designed so that you can save your information and return to it. You will be given a code, so be prepared to save that information.

Format Specifications

All applications must adhere to the following guidelines:

- Font
 - Use Arial 11 points or larger
 - Type density, including characters and spaces, must be no more than 15 characters per inch.
 - Type may be no more than six lines per inch.
- Page Margins
 - Use at least one-half inch margins (top, bottom, left, and right) for all pages
- Application Paging
 - The application must be single-spaced.
- Figures, Graphs, Diagrams, Charts, Tables, Figure Legends, and Footnotes
 - You may use a smaller type size but it must be in black ink, readily legible, and follow the font typeface requirement.
 - Do not include figures or other materials that are not inserted directly into the body of the application.
- Documents and file name. All documents asked for in the application must be submitted online in A single combined PDF document. Name your document using the following guideline:
< lastname_firstname_path_to_k_Application_2021 >

Upon receipt of your application, the CCTS will send you an email confirmation. Please inquire within 24 hours if you do not receive this email. The program will not be responsible for late submissions if not notified.

Investigators are strongly encouraged to visit the [CCTS website](#) to search for and make use of other CCTS resources relevant to your project.

Grant Application Checklist

The Application consists of several parts. You can use the following as a checklist to help you gather, enter, and complete the application.

- Personal Information
(Includes Employee ID Number, OSU name.#)
- Campus Address
- Current University Employment Information (including job title, Department name, tenure track status)
- Administrative departmental contact (name, email)
- Previous CCTS funding
- NIH new investigator or early stage investigator status
http://grants.nih.gov/grants/new_investigators/investigator_policies_faqs.htm#2650
- Mentor(s) and collaborators (name/title/role on project/department)
- Race, ethnicity, and additional such reporting information asked for by the NIH
- Project Title and Abstract (up to 250 words)
- Project Description – 9 page maximum (to be uploaded to the Application; see these instructions for complete details)
 - Personal Statement (1 page maximum)
 - Who are you? Why have you chosen a research career?
 - Your previous research experience?
 - What are your clinical privileges and expectations?
 - How you believe this training program will change the trajectory of your career or enhance your movement towards your goals?
 - Mentorship & Career Development Plan (up to 2 pages)
 - The role of your mentor(s) in developing your skills
 - Your strategy for a K-proposal submission within 12 to 18 months.
 - How will you meet the NIH requirements for training in responsible conduct of research
 - Research Plan (6 pages maximum). The following topics should be addressed:
 - Specific Aims & hypothesis
 - Significance
 - Innovation
 - Preliminary Data
 - Approach
 - Milestones
 - References to Scientific Literature (not included in page count.)
- Itemized Project Budget (see below for form) and Budget Justification.
- NIH Formatted Biosketches (to be uploaded to the Application)
 - Applicant
 - Lead Mentor
 - All other mentors
- Letters of support from your:
 - Mentor
 - Other members of your mentoring team.
- Regulatory (IACUC or IRB) approval (if applicable)
- Signature of dean or department or division chair agreeing to the release time and cost-sharing should the application be funded

Application Components: Personal Statement

A one-page personal statement addressing the following points:

- Who are you? Why have you chosen a research career?
- Your previous research experience
- What are your clinical privileges?
- How you believe this training program will change the trajectory of your career or enhance your movement towards your goals

Application Components: Mentorship & Career Development Plan

This section can be up to 2 pages and should address:

- The role of your mentor(s) in developing your skills
- Your plan for receiving training to develop the additional skills you need to be a physician scientist.
- How you will meet the NIH requirements for instruction in the responsible conduct of research (see <http://grants1.nih.gov/grants/guide/notice-files/NOT-OD-10-019.html> for more information). Note the CITI GCP and RCR training is required also, but does not fulfill this requirement.
- Your strategy for a K-proposal submission within 12 to 18 months.

Application Components: Research Plan

This section can be up to 6 pages and should include:

- Specific Aims and hypothesis of the project. Preferably no more than 2 aims
- Significance of the problem and how the proposed project will improve scientific knowledge and/or change the field of study.
- Innovation – explain how the proposed project challenges current practice or creates a novel approach to the problem.
- Preliminary Data. Any research findings that help demonstrate the feasibility of your project; figures can be multi-panel if addressing a common theme; fully self-explanatory legends. Preliminary data can be integrated within various sections and does not have to constitute an independent section.
- Approach – Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project, noting in particular how it is clinical and/or translational. Schematic illustrations desired. Discuss potential problems, alternative strategies, and benchmarks for success anticipated to achieve the aims. For materials and methods, highlight powerful non-routine approaches, summarize routine approaches, and address statistical approach.
- Milestones. A list of milestones to be met and set dates for meeting.

References to Scientific Literature. This section is not included in the 6-page limit

Application Components: Itemized Project Budget and Justification

Use budget worksheet provided at: <https://ccts.osu.edu/content/path-k-mentored-career-development-grant>

The Path to K grant has a budget of up to \$50,000. Allowable costs:

- Salary support for the Path to K PI up to a 10% FTE appointment to this grant (capped at \$15,000 maximum) for the applicant, plus appropriate fringe.
- Salary and fringe support for research staff, including undergraduate or graduate students, clinical trainees, post-doctoral and clinical fellows, is permitted.
- Research supplies and other expenses needed for carrying out the project, such as research beds, nursing or bionutrition staff, and routine laboratory measures.
- Travel funds needed for study conduct (e.g. participant travel or reimbursement for mileage for the conduct of community-engaged research) are allowable expenses. Funds to travel to the Association for

Clinical & Translational Science (ACTS) meeting in Washington, DC, in April should be included in your budget (~\$2,000).

- Equipment that is essential for the study, and is not otherwise available, may be requested, but large equipment expenditures (over \$5,000) are not allowed.

The budget justification should briefly provide explanation for line items within each category, such as roles and responsibilities for personnel, how supplies relate to your aims. If requesting equipment, the justification must explain why the current equipment is insufficient to accomplish the proposed research and how the new equipment's use will be allocated specifically to the proposed research. Finally, describe any overlap with submitted or funded applications, and existing funding including start-up

Application Components: Scientific Mentorship Team

Your Scientific Mentorship Team must consist of at least three members. Your team must include among its membership a Lead Mentor, a statistical mentor, and one other mentor (additional mentors are optional).

Lead Mentor. The applicant will identify a faculty member mentor in his or her area of clinical or translational research. Your mentor (or each co-mentor) is responsible for:

- Providing career development and counseling;
- Guiding and encouraging the design and execution of an original, high quality, research project;
- Collaborating with the mentorship team to support the Path to K Scholar.
- Attending CCTS sponsored events including a mentor training program and an on-boarding session, as well as other meetings with program leaders and administrators as needed.

The letter of support from your lead mentor should acknowledge his or her understanding of these requirements, and describe their mentoring plan for your development. The letter should also describe the Mentors experience with mentoring, including number of mentees.

Biostatistician. Your mentorship team must include one statistician who will help you to develop a research plan that meets the highest standards of rigor and reproducibility. The biostatistician will also biostatistical analysis of data and mentor you in biostatistical analysis. If your department or division does not provide access to biostatistical support, you can arrange for a consultation with the Center for Biostatistics. Go to the Center's project request form at:

<https://medicine.osu.edu/departments/biostatistics/service-request-form>

At least One Additional member of the mentorship team. The Mentorship Team provides additional expertise in the scientific area of research chosen for the project, complementary to the interests of the lead mentor. It is highly desirable that the other member of your Mentorship Team be drawn from another discipline so that he or she can provide transdisciplinary input into your project. Your mentorship team members may also include a University faculty member who is not a regular member of the graduate faculty (e.g., an adjunct professor), a University staff member, or a qualified individual outside the University who can provide expertise in your discipline.

Mentor Letters of Support

Letters of support are required: (1) from Lead mentor; and (2) from the other members of your mentoring team. Include these letters in your application PDF.

The Mentors should acknowledge awareness and support of the project and address the role and qualifications of the mentor for the project.

Address the letters to:

Cynthia Carnes, PharmD, PhD
The Ohio State University
338 West Tenth Avenue
Columbus, OH 43210

Application Components: NIH Biosketches

You must upload (as PDFs) NIH formatted biosketches of yourself, your lead mentor, and any other mentors or collaborators. The NIH has revised the biosketch form and requires the use of that form after January 2022. It is recommended you and your team use the new form for this application.

Biosketch Instructions, samples, and format pages can be found here:

<https://grants.nih.gov/grants/forms/biosketch.htm>

Application Components: Signature Page

Your dean or department/division chair must sign the signature page agreeing to the release time and cost sharing should you be funded. The pattern of administration in your unit will determine who the signing individual is. It should be the person who has ultimate authority for your time.

Section IV. Application Review Information

Three reviewers will read each application. Applications will receive an Impact Score (NIH 1-9 scale). Individual components will also be scored 1-9.

The overall impact will reflect an evaluation of the trainee, the mentoring team, the training plan, and the proposed research. All are equally weighted and the study section will assess the overall fit of the components together.

Each application will also receive biostatistical review that will not be formally scored but will be reported to the study section. Rigorous biostatistics are an important part of scientific research.

Section V. Integrating Special Populations

Though this is not a scored category, applicants are encouraged to design research projects that address the needs of special populations; devise recruitment and retention plans that will optimize the participation of one or more special population; or pursue other strategies that integrate underrepresented groups into clinical and translational research.

The term “Special Populations” encompasses a multitude of groups and communities that are commonly underrepresented in clinical and translational research, and the CCTS is actively working to correct this problem. These groups include, but are not limited to, the following:

- Fetuses, neonates, and children
- Pregnant or nursing women
- Older adults
- Individuals with physical disabilities
- Individuals with communication or sensory impairments (hearing, vision)
- Racial, ethnic, or cultural minorities
- Non-English speaking individuals
- Underinsured or socioeconomically disadvantaged patients
- Gender or sexual minorities (LGBTQ+)
- Individuals with intellectual disabilities
- Isolated urban or rural communities

Socioeconomic or demographic factors may contribute to the systematic underrepresentation of special populations, regardless of whether these groups are explicitly targeted for research participation. Historical cases of research misconduct have also ingrained a deep-rooted mistrust of the medical establishment in certain communities. Investigators often encounter additional challenges when recruiting or retaining special populations for research, such as how to effectively obtain informed consent for individuals with intellectual disabilities or how to ensure success for a study requiring multiple clinic visits for individuals with limited physical mobility. All of these factors contribute to the underrepresentation in research of specific populations.

Section VI. Grant Administration Information

Grant Notices

Meritorious applications will receive formal notice in the form of a Letter of Offer provided to the applicant. A completed and signed CCTS Grant Acceptance Letter is required before the start date.

Reporting

You will provide brief interim progress reports three times per year and an annual progress report at the end of the year in which you will report on the progress of meeting the project milestones you listed in your application. The annual report will also include a brief presentation about your experience as a KL2 scholar to the CCTS Executive Committee.

Trainees, Lead Mentors, and the Program Directors will meet every six months to review progress on the scholars Training Plan.

Citation Requirements:

All investigators must acknowledge the CCTS, the Office of Health Science, and/or the College of Medicine in all publications, posters and presentations resulting from the supported studies. Where applicable, please include one of the following texts:

For awardees from a health science college other than Medicine:

The project described was supported by a Path to K award from the Ohio State University Office of Health Sciences and the Center for Clinical & Translational Science. The content is solely the responsibility of the authors and does not necessarily represent the official views of the university, or the Center for Clinical & Translational Science.

For College of Medicine awardees:

The project described was supported by a Path to K award from the Ohio State University College of Medicine Office of Research and the Center for Clinical & Translational Science through the Richard P. & Marie R. Bremer Medical Research Fund and William H. Davis Endowment for Basic Medical Research. The content is solely the responsibility of the authors and does not necessarily represent the official views of the Davis/Bremer Research Fund, the Center for Clinical and Translational Science, The Ohio State University Wexner Medical Center, or the university.

Section VII. Agency Contacts

Grant Management Contact

If you have any questions regarding this RFA, please contact:

Stuart D. Hobbs, PhD, MBA

Associate Director, Research Education, Training, & Career Development
Center for Clinical & Translational Science
Ste. 260 Prior Hall, 376 W. 10th Avenue, Columbus, OH 43210
614-685-5972 Office
stuart.hobbs@osumc.edu cts.osu.edu

Program Co-Directors

Cynthia Carnes, PharmD, PhD
Path to K Program Director
Associate Dean for Graduate Studies & Research
College of Pharmacy
Carnes.4@osu.edu

Loren Wold, PhD, FAHA
Path to K co-Director
Professor of Nursing and Medicine (Physiology and Cell Biology)
Assistant Dean for Biological Health Research
College of Nursing
wold.5@osu.edu

Signature: Protected Time and Salary Coverage

I acknowledge that this individual is qualified for this program and will receive support for all requirements for protected time and financial needs according to the RFA, and specifically:

1. I agree that if this applicant is awarded a Path to K grant, this individual will receive the required 20% protected time beginning July 1, 2021, and continuing until May 31, 2023, assuming satisfactory progress as determined by the CCTS Executive Committee.
2. I agree that the department and/or college will provide the amount of salary and benefits not covered by this grant beginning with the award date, and continuing for up to two years. The grant covers 10% of salary up to a salary cap of \$150,000 (i.e. 10% of \$150,000 = \$15,000), plus relevant fringe benefits.

Signature

Date

Printed Name & Title: _____

Note: The above should be signed by your College Dean or your Department or Division chair: whoever is the appropriate person to make these commitments.

Signature Applicant

I certify that the statements herein are true and complete to the best of my knowledge, and that I will comply with all applicable CCTS terms and conditions governing my potential appointment. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties.

Applicant's signature

Date

Appendix 1: CCTS Career Development Awards Compared

The Path to K grant is designed to benefit a wide spectrum of clinical and/or translational researchers across OSU. The grant provides salary support to ensure protected time for mentored research and didactic training in clinical/ translational research across a wide variety of project topics and academic areas. The overall goal of the program is to equip early career investigators to advance on the path to be competitive for NIH K Career Development Grants (or equivalent).

Early career junior faculty on the tenure or clinical track from one of the following health sciences at the Ohio State University are eligible to apply: College of Dentistry, College of Nursing, College of Optometry, College of Pharmacy, College of Public Health, and College of Veterinary Medicine are eligible to apply.

Faculty from the College of Medicine are eligible for the Davis Bremer component of the Path to K. The Davis Bremer Path to K awards grants to facilitate early career successes for outstanding physician-scientists at Ohio State committed to a career in academic medicine. Applicants for the Davis must be physicians with OSU Wexner Medical Center credentials. This requirement reflects funding restrictions on the Richard P. and Marie R. Bremer Medical Research Fund and the William H. Davis Endowment for Basic Medical Research, which fund the Davis-Bremer/College of Medicine Path to K component.

All applicants for Path to K grants must have not previously been a PI on an NIH individual or institutional K, or R01 Award or other major grant with more than \$100,000 in direct costs. All applicants must have a research or health-professional doctoral degree.

The CCTS also manages an NIH institutional K award, the KL2. The qualifications for the KL2 are similar to those for the Path to K. However, the KL2 is designed for more advanced researchers who are preparing to apply for an NIH R01 grant or equivalent.

The Path to K grant is for researchers who are preparing to apply for an NIH K award or equivalent.

Appendix 2: Options for Fulfilling Requirements in Responsible Conduct of Research

Courses:

Pharmacy 8520 - Research Ethics

Basic concepts of integrity in the process of research. The course covers all areas of responsible conduct of research including mentor/trainee roles, data management, animal use, human subjects. Often offered May term. The course fulfills NIH requirement for research ethics. Dr. Cynthia Carnes, instructor. 1 credit

Vision Science 7960 - Ethics in Biomedical Research

Provides a general understanding of the issues surrounding the ethical conduct of science including issues related to research involving human subjects, scientific misconduct, and authorship of scientific papers. Real-life case studies will be used. Often offered Fall Term. Dr. Karla Zadnik, instructor. 2 credits.

Nursing 7781 - Responsible Conduct of Research

Concepts and policies for the responsible conduct of research (RCOR), Institutional Review Boards, and dissemination of findings. Offered Online, Spring. Dr. Amy Mackos and Dr. Karen Williams, instructors. 3 credits

HTHRHSC 7883 - Responsible Conduct of Research

Seminar encompassing a variety of professional skills in Health and Rehabilitation Sciences Research including the process of writing, publishing, and reviewing journal manuscripts; human & animal subjects in research & responsible conduct. 1 credit.

BioPhrm 7510 – Professional & Ethical Issues in Biomedical Sciences

A discussion course based on case scenarios dealing with ethical issues facing biomedical researchers, such as publishing practices, confidentiality, mentoring. Typically offered in Spring Semester. Dr. Frederick Villamena, instructor. 2 credits.

Biomedical Engineering 6983 - Research Ethics

Introduction to professional and ethical issues confronting biomedical research and researchers and approaches to dealing with such issues. Prereq: Grad standing, or permission of instructor. Offered Autumn term. Dr. Alan Litsky, instructor. 2 credits.

Surgery 8814 - Responsible Conduct of Research: Human Participants and the Use of Animals in Biomedical Research

Responsible conduct of research with human participants and the use of animals in biomedical research is crucial to maintaining the public trust in both the results and the methods of biomedical research. Offered Spring semester. Dr. Tatiana Oberyszyn, instructor. 2 credits.

Other Training Programs

Webcast from the NIH: Ethical and Regulatory Aspects of Clinical Research:

This is a live webcast that the CCTS hosts most autumns. The sessions are typically Wednesday mornings from mid-September to November. Participants watch the webcasts and take part in discussions. By attending 6 of 7 sessions and completing evaluations and pre and post tests, participants receive certification. More information:

<https://www.bioethics.nih.gov/courses/ethical-regulatory-aspects.shtml>

Contact Karen Carter of the CCTS at KarenK.Carter@osumc.edu for local hosting information.

Conversations about Research Ethics (CARE) Training Program

The Center for Ethics and Human Values (CEHV) offers a semester-long, multidisciplinary, and discussion-based RCR program called the CARE Training Program. It involves 8 hour-long sessions led by CEHV ethicists. Each session uses a “flipped classroom” model, providing participants with resources prior to each discussion.

Details here: <https://cehv.osu.edu/care-training-program>

Responsible Conduct of Research Training at Nationwide Children’s Hospital

Nationwide Children’s Hospital offers a Responsible Conduct of Research Training Series during the summer. The course fulfills NIH requirements. For details, contact Katie.Campbell@nationwidechildrens.org.