

University of Southern California

**Workforce Development (WD)**
Southern California Clinical and Translational Science Institute (SC CTSI)Soto Street Building
2001 N. Soto Street, SSB 205K
Los Angeles, CA 90032-9234
Tel: 323 442 8281 Email:WD@sc-ctsi.org**Mentored Career Development in Clinical and Translational Science
(MCD-CTS) Program Award****Application Guideline**

Applications for the Mentored Career Development in Clinical and Translational Science Award (formerly KL2 Program) are now being accepted by the Southern California Clinical and Translational Science Institute (SC CTSI). The SC CTSI is supported by an award from the National Institutes of Health with a thematic focus on research that will improve health in diverse populations in urban environments.

The three-year MCD-CTS Program will support the research career development of promising individuals who have recently completed professional training and who are commencing translational and/or clinical research. MCD-CTS Scholars must have a research or professional doctoral degree in a clinical discipline. Applicants must be junior faculty members or anticipate promotion to faculty status upon the start of the award. Applicants must be seeking a career in clinical and/or translational research. PhD faculty in the health professions seeking a transition into a clinical research career also qualify for this program. Their departments are expected to support their development as researchers on completion of the program. Individuals will work with their mentors to choose appropriate graduate-level clinical research coursework to achieve core competencies in clinical and translational research. In the process of acquiring these competencies, Scholars are encouraged to obtain a Master of Science in Clinical, Biomedical and Translational Investigations from the Keck School of Medicine.

The deadline for submission of the application is 5:00pm on August 31, 2018. Incomplete applications will not be considered for funding. The scientific and scholarly merit of the applications will be determined by a review panel, which will make recommendations to the WD leadership. Applicants are expected to participate in the program for the full three years, unless successfully obtaining a new funding resource (i.e. K23 or RO1). The award will begin June 1, 2019.

MCD-CTS Program Description & Requirements

Purpose: The program will provide multi-disciplinary, team-based clinical and translational research education to a select group of Scholars. These Scholars will acquire the scientific competencies necessary to perform clinical and translational research, including research related to health problems in diverse populations.

Eligibility: Individuals with a health-professional doctoral degree, including but not limited to MD, PhD, PharmD, DPH, DSN, DNP, DPT or OTD are eligible to apply. All candidates must be junior faculty status or must be promoted to faculty status by the start of the award. Candidates must be US citizens or Non-Citizen Nationals, or Permanent Residents. Individuals on temporary or student visas are not eligible. Scholars must be able to commit up to 75% of professional effort to the program. No Scholar may have two concurrent SC CTSI awards or be named on more than one active SC CTSI application. Individuals who were, or currently are a Principal Investigator on an NIH R01/R29, or project leader on

a subproject of a Program Project (P01), Center (P50, P60, U01, U54), institutional career development grant (K01, K07, K08, K22, K23, or K25) or equivalent non-PHS peer reviewed research grant that is over \$100,000 in direct costs per year are not eligible. Candidates may have had previous support on a NRS grant (F or T) or have been a PI of an NIH small grant (R03 or R21). Candidates may have had previous support on a K-12 award, but the CTSI MCD-CTS Program Award cannot extend total K support beyond 5 years. We encourage applications from individuals in underrepresented minority groups. Please refer to the following web link for more information: <http://grants.nih.gov/grants/guide/notice-files/not-od-08-065.html>.

Training Experience: Scholars will pursue a mentored research project in their area of expertise. It is expected that the research performed within the MCD-CTS program will provide the basis for development of an independent NIH award (i.e., K23, K08, or R01). MCD-CTS Scholars will also receive advanced training in multiple disciplines, including biostatistics, epidemiology, clinical pharmacology, study design, genetics, bioinformatics, bioethics, and behavioral science. Completion of MCD-CTS Scholar requirements will lead to either a Certificate or a Master of Science in Clinical, Biomedical and Translational Investigations. Individuals who desire to obtain a Master's Degree in Clinical, Biological, and Translational Investigations as part of the training plan must complete a separate application through the Keck School of Medicine. Scholars are encouraged to pursue training within USC's Masters, PHD programs or by combining courses from the other programs. This fulfills the WD's mission in providing optimal training for each individual and their specific career objectives. Applicants wishing to pursue this last option should contact the MCD-CTS program staff prior to developing their application for this award.

Each Scholar will work with his/her mentor to develop goals and execution of a career development and education plan, and research project. Mentors must be accomplished investigators (i.e., federally funded) in clinical and translational research and must have a track record of success in training new investigators and fostering their success as independent researchers.

Key educational program elements will include:

All MCD-CTS Scholars are required to complete the following curriculum:

- **Clinical Translational Research Courses (1, 2, & 3):** WD has developed Clinical Translational Research courses (CTR 1-3) totaling 12 units which are given under the Department of Preventive Medicine. These courses provide an overarching understanding and view of research from the clinical translational perspective. Using a new teaching and instructional method, the courses are taught in a problem-based fashion that requires Scholar's engagement and participation.
- **Directed Research:** A minimum of 6 months of practical research experience must be spent on a research project (PM590 or PM790 – 3units).
- **Seminar Sessions:** These monthly seminars are an additional education component to the program. Sessions are intended to assist in developing leadership, scientific, and communication skills. Each session will consist of a different topic lead by an expert facilitator from the USC faculty, other universities, or other SC CTSI community partners.

In an effort for MCD-CTS Scholars to network with others, seminar sessions will periodically be open to the following USC programs/organizations:

- * MD/PhD Program
- * Dean's Research Scholar Program
- * USC Post-doctoral Association
- * Training Programs
 - Developmental Biology, Stem Cells and Reproductive, Regenerative, and Reparative Medicine
 - Rehabilitation Efficacy and Effectiveness
 - Environmental Genomics
 - Cancer Control and Epidemiological Research
- **Work-in-Progress:** Approximately every six months, all MCD-CTS Scholars provide an update on their research. A work-in-progress will occur in place of a seminar session topic. This provides them with an opportunity to receive feedback from respective colleagues in the program, mentors, the MCD-CTS Leadership, and other audience members. **All mentors are required to attend these meetings.**
- **Annual Progress Reports and Performance Feedback:** The MCD-CTS Scholar must also complete an annual progress report describing the specific activities, career goals, accomplishments and whether the benchmarks established in the mentoring/educational plan have been reached. The annual progress report will include the following:
 - * A statement on the progress toward each goal;
 - * Listing and grades for formal coursework;
 - * Progress in clinical research projects;
 - * Scientific productivity, (manuscripts, abstracts, presentations, and grants);
 - * Other activities;
 - * Goals for the next 12 months; and
 - * Summary of the interactions of the MCD-CTS Scholar with the mentors.

Submission of the completed progress report is an absolute condition of the MCD-CTS Program Award.

- **Annual Translational Science Meeting:** Scholars are required to attend and present at the annual Translational Science Conference organized by the Association for Clinical and Translational Science (ACTS) for Scholars in Washington, DC. This provides an opportunity for the Scholars to meet colleagues from across the nation and present their work.
- Each CTSI MCD-CTS Scholar will have access to epidemiologic and biostatistical advice and the opportunity to receive extensive one-on-one tutorials on at least one manuscript and/or grant proposal.
- Scholars are expected to contribute to the goals of the CTSI by serving as role models for (pre-doctoral) Trainees, clinical fellows, and teaching clinical and translational science methods to others and in their home departments.

Transferability of the Award: This is an institutional career development award granted to USC, and it is non-transferable; Scholars who leave USC will not be able to continue receiving MCD-CTS Scholar

funding from USC. Exceptions can be made for transfer to institutions that are partners of the SC CSTI, such as Children's Hospital Los Angeles.

Professional Effort Devoted to the Program and Source of Funding: The MCD-CTS Award recipient will devote 75% effort to pursue their interests in clinical and translational research within the MCD-CTS program. The award has provided the following financial coverage:

- Scholar's salary support up to \$90,000 plus fringe for effort devoted to the program (a minimum of 75% is required for non-surgical specialties, 50% for surgical specialties):
- Tuition/research costs of up to \$25,000 annually for three years:
 - Travel Stipend (Year 1): Scholars may spend up \$5,000 as part of the \$25,000 on travel related to their research which must be completed in Year 1 of the program. A portion of travel stipend (approximately \$2,500) must be used to cover hotel, transportation, meeting registration, food, and printing of poster presentation for the Translational Science Meeting in Washington, DC (mandatory attendance in first year of training to this conference).
 - Travel Stipend (Year 2): Scholars may spend up \$2,500 as part of the \$25,000 on travel related to their research which must be completed by Year 2 of the program.

Federal grants and contracts may not be used for additional salary support of MCD-CTS Scholars (except in the final two years of K funding, as noted below); however, other intramural and non-federal sources may be used for this purpose. Scholars who acquire non-federal sources of funds that are appropriate for this use, such as foundation career development grants, may be expected by their department to allocate part of the award to help cover their own salary gaps.

For surgeons and some other specialists who require significant activity to maintain clinical skills, WD may consider lowering required effort devoted to the MCD-CTS Scholar program from 75%. In no case can the effort be <50% and in any such case salary support from the MCD-CTS program will be reduced proportionately to the reduction in effort. Applicants interested in this option should discuss it in advance with the Co-Director of WD, Dr. Cecilia Patino-Sutton, prior to submitting a MCD-CTS Scholar application. Prior approval must be obtained by NIH and it may take up to 6 months for NIH to approve or reject the request. The NIH has a specific policy on receiving concurrent support as a PI of an NIH R01 and K Career Development Award in the last two years of K, which can be reviewed at the following web link: <http://grants.nih.gov/grants/guide/notice-files/not-od-08-065.html>.

An applicant can receive this award only once. The award recipient will be required to actively participate in all MCD-CTS Scholar activities for the duration of the program. Publications that result from this support will need to acknowledge the CTSA funding source.

Mentors: Developing a successful clinical research career requires strong relationships with mentors and a research team. Each Scholar must have a primary mentor and a co-mentor from a different discipline. The primary mentor should have sufficient independent research support to cover any costs of the proposed research project that exceed the Scholar research funds provided by the MCD-CTS Program Award.

- i. **Primary mentors** are expected to be in the same area of the applicant's field of clinical or translational research and a member of the faculty in the applicant's unit. Under the guidance from the primary mentor, the applicant will prepare a proposal that describes the research project to be undertaken. A Principal Investigator (primary mentor) can sponsor only one application per year. Primary mentors, who have received previous awards from the CTSI for their trainees, must

document that they have fulfilled their previous commitments (i.e., first author publications by previous trainees and grants). The primary mentor is responsible for:

- Guiding and encouraging the design and execution of an original, high quality, research project.
- Providing guidance and supervision to assure that projects are moving satisfactorily on the path to presentations, publications, grant applications, and preparation of a final report.
- Providing opportunities and helping the Scholars develop creative and independent careers in research, as well as providing advice on career direction, national networking, and academic promotion.
- Being familiar with faculty, resources and databases at USC, and having resources including research staff to assist the Scholar in his/her research.
- Assure that the agreed upon proportion of the Scholar's total work week is protected from clinical and administrative duties, and fully available for training and research (75% for MCD-CTS Scholars).
- Meeting with the Scholar at least monthly, both individually and in conjunction with other members of the research team. Primary mentors are required to meet with their scholar and other mentors as a group at least twice a year.
- Attend Scholar's Work-in-Progress sessions scheduled every 6 months.
- Attend additional mentoring workshops as scheduled by the WD Office.

If the primary mentor is providing research space and/or financial support, he /she may submit a separate letter addressing this resource component.

- ii. **Co-mentor(s)** will be responsible for working with the primary mentor on the responsibilities mentioned above, and will provide guidance in one or more complementary areas of expertise. It is highly desirable that the co-mentor be a faculty researcher in another discipline who can provide translational input into the applicant's project.
- iii. **Department or Division Chair** must provide written assurance that they have research space, equipment, financial resources, and the interest required for training the candidate. Assurance is also needed that the applicant will be able to commit the specified level of effort to the program. This statement by the department or division chair must include any sources of external support (for example: Training Grant, NIH, and American Cancer Society) available to them. Supplementation of the Award is permitted in accordance with the USC Graduate School guidelines. If candidate does not hold junior faculty status during application process, the department/division chair must provide assurance that the candidate will be promoted to junior faculty position upon the start of the award. Each Scholar is also expected to meet periodically with her/his division head/department chair who will oversee the Scholar's departmental interactions and academic advancement. The department/division chair must ensure that they will uphold the required protected time of 75% for MCD-CTS Scholars. The WD encourages the department or division chair to support a third-year of participation in the program.

If the primary mentor is providing research space and/or financial support, the department/division chair still must submit a letter of recommendation stating his/her support for the applicant.

Selection Committee members may also serve as mentors but during the selection of the candidate, these individuals will be excused from the discussion and vote.

Scholar Selection Process: Reviewers with expertise in the area of research will review the Scholar's application. Selection criteria focus on five major areas:

- i. **Track record** or candidate's ability in the areas of expertise and prior training; publications; funded grants to be attached to the application.
- ii. **Research plan's** scientific value, potential clinical and or translational importance and feasibility.
- iii. **Educational and mentoring plan's** quality, appropriateness, multidisciplinary mentors, and plan for additional didactic and/or other training at USC or elsewhere.
- iv. **Resources** and commitment provided by the home department, and suitable /available clinical and laboratory infrastructure.
- v. **Career potential** or likelihood that the candidate will develop a career as an outstanding investigator who will lead multidisciplinary teams and potentially impact on health.

Application Advice: Before submission, candidates should check with their department chairs to ensure that the department will provide any salary that is needed to cover their 75% protected time for training and research, as well as salary for the 25% effort not covered by the CTSI. Note that these funds may not be derived from Public Health Service (i.e. NIH) fund sources. The candidates should also gain assurance that they will be able to commit the needed level of effort.

Annual merit increases and promotions are allowed (and encouraged), but we do not support supplemental pay if Scholars have taken on other administrative duties (i.e., director of clinic).

Please contact the WD's administrative staff at **WD@sc-ctsi.org** or via phone at **(323) 442-8281** about the submission process and paperwork.

Application Instructions

To be completed by the Applicant:

The following application process and format must be adhered to:

1. Letter of Intent

The information in the letter of intent allows us to better plan the review process, and assist potential applicants as necessary. Deadline for submission of letter of intent is due by 5:00pm on August 3, 2018. The letter must not exceed 2 pages in length and should contain:

- Applicant's contact information;
- A brief paragraph describing what you hope to achieve through participation in the program;
- A paragraph describing educational and mentoring goals;
- A brief paragraph describing the research including the project title that you would like to perform as a part of the program;
- The name, contact information, and specialty of the primary mentor and co-mentor; and
- Applicants must include their curriculum vitae and biosketch along with their Letter of Intent (2 page limit) in a combined PDF document. CV may exceed the 2 page limit.
- Upload letter of intent via the online application. Scroll down to the bottom of the online application. Click "Save Draft." Your letter of intent will be saved as part of your application. You may continue to work on the other sections of the application. (NOTE: Please do not click "submit application" as that will submit your entire application automatically.)

Submit your letter of intent online via this link: <https://webportalapp.com/appform/mcd-cts-award-2018>.

2. Application Form

- To begin the application process, please visit the MCD-CTS Program information page on the SC CTSI website at: <https://sc-ctsi.org/training-education/mentored-career-development-in-clinical-and-translational-science-program>.
- Download the following documents:
 - **Application Guideline:** Read these guidelines thoroughly before you begin filling out the application form.
 - **Area of Expertise Coding List:** Read guidelines for more information when to use and complete the application appropriately.

Applicants will be able to submit their application through WizeHive, an electronic grant application and tracking environment. You may access the WizeHive online application form <https://webportalapp.com/appform/login/mcd-cts-award-2018> **by June 1, 2018.**

Please complete all the sections of the application form:

Section 1: Basic Data

Please note all elements of this section must be completed in order for paperwork to be processed in a timely manner. In some cases, applicants may already have an eRA Commons user name through the Department of Health and Human Services. If an eRA Commons user name has already been obtained, please enter the user name in the area provided in this section. If you do not have an eRA Commons user name, you may go to the following link for more information:

http://era.nih.gov/commons/faq_commons.cfm#11. The area of expertise must be completed with the appropriate code which is found as a drop down menu provided in the required sections of the application.

Section 2: Additional Information required by the NIH

Demographic information such as citizenship, residency status, country of birth, gender, race, and ethnicity is asked within this section. The information asked in this section is CONFIDENTIAL and COMPLETELY VOLUNTARY. Answering the questions or the omission of an answer will not influence the University's or WD's decision on admission.

Section 3: Education/Post Graduate Training/Work Experience

This section requires the following information to be provided:

- Listing of all schools attended in chronological order;
- Indicate any post graduate training appointments (include internships, residencies, fellowships, post-doctoral positions, and other appointments if applicable);
- Indicate current enrollment or have been accepted into other graduate degree programs at the University of Southern California.
- Listing of work experience which includes academic, research, and professional experiences (full and/or part-time) in the last 3 years.
- Board or other certification status (only for physicians to answer regarding board eligibility).

Section 4: Letters of Recommendation

Please complete the contact information for Primary Mentor, Co-mentor, and Division Chief/Department Chair in the application. Primary and co-mentors will need to provide the applicant a PDF copy of their letter of recommendation, NIH Biosketch, and a list of previous mentees in order to complete the MCD-CTS Scholar application submission process. The department chair/division chief must complete the letter of recommendation component, but does not need to submit an NIH Biosketch or list of previous mentees.

Supporting documents to be completed by the Mentors and Division Chief/Department Chair:

a. Letters of recommendation (maximum 2 pages) should be provided to the applicant as a PDF file by the:

- Primary mentor,
- Co-mentor, and
- Division Chief or Department Chair.

Primary mentor and co-mentor must include comments regarding the applicant's qualifications relevant to the study of clinical/translational research and their commitment to a career in clinical or translational research as well as describing the qualifications of the applicant to conduct the proposed research project. Elaborate on the potential of the candidate to perform the research project and understand its implications for human disease and improvement of human health, particularly in urban populations. Elaborate on the commitment of the applicant to clinical and translational research and how this award would benefit him/her in continuing an independent career in this field. The Mentors should also describe their qualifications to mentor the applicant, and elaborate how this research project fits in with research conducted by the Mentor's. If the primary mentor is providing research space and/or financial support, he /she may submit a separate letter addressing this resource component. Mentors must ensure that they will uphold the

required protected time of 75% effort for MCD-CTS Scholars to spend on clinical/translational research and training activities while in the program.

Division chief or department chair must include comments on the resources that they will provide to support the candidate's research for the years the candidate is in the program. Please be specific as to amount of space, number and kind of staff, clinical and lab resources, and dollars they will make available to the Scholar (this has an important impact on funding decision). The division chief or department chair also needs to indicate their commitment to ensure that they will uphold the required protected time (75% effort for MCD-CTS Program) for the candidate while in the program. If candidate is does not hold junior faculty status during application process, the department/division chair must provide assurance that the candidate will be promoted to junior faculty position upon the start of the award. If the primary mentor is providing research space and/or financial support, the department chair/division chief still must submit of letter of recommendation stating his/her support for the applicant.

- b. A copy of each mentor's NIH biosketch (no more than 4-5 pages, follow NIH new guidelines for format and content) must be uploaded as a PDF file within the appropriate section of the online application. This is not a required element for the department chair/division chief.
- c. A list of previous Scholars who worked with each mentor over the past ten years. Provide up to 5 publications of the mentees as a primary author. Include information on their current positions. This information must be uploaded as a PDF file within the appropriate section of the online application. A sample template in Word and Excel formats of a "Trainee Table" is available for download from the WD website at <https://sc-ctsi.org/training-education/mcd-cts-application-details> (scroll to bottom of page). This is not a required element for the department chair/division chief.
- d. Miscellaneous letters of recommendations from other collaborators may be provided but are not a required component. You may combine these letters and upload them as one PDF document within the appropriate section of the online application.

Section 5: Proposed Mentoring Plan

In a collaborative effort with mentors, please provide up to a one page outline/timeline for each of the following components as part of the mentoring plan:

- a. Career Development Goals (one page): Provide a description of career development goals including timeline and strategy proposed to meet the goals (e.g., communications skills (written, oral, multidisciplinary interaction, teaching, and research skills). Please include information on the frequency, duration, and when mentoring meetings will be initiated.
- b. Research Project Timeline (one page): Provide specific benchmarks and anticipated completion of research project, and
- c. Extramural Funding, Manuscript, Meeting Presentation Timeline (one page): Provide expectations regarding submission of application for extramural funding, manuscripts, and meeting presentations.

Please **provide a separate page for each component stated above** using at least 11-point font. Do not combine all three components on one page. The header should include applicant's name, section title, and the following mentoring plan component(s) (ex. Applicant: John Doe, MD, Proposed Mentoring Plan, Career Development Goals).

Section 6: Proposed Education Plan

Please provide a one page statement (in 11-point font) on applicant's plans for educational development during the award (intention to pursue a Master of Science in Clinical, Biological and Translational Investigations, or other coursework, tutorials, or training). Include and describe structured activities, such as course work or technique workshops as well a specific benchmarks, and anticipated dates of completion. This portion of the application needs to include didactic courses that will be incorporated into the career development and mentored research experience. Also, explain how this educational plan will facilitate overall long-term career development goals.

The header should include applicant's name and title of this section (ex. Applicant: John Doe, MD, Proposed Education Plan).

Section 7: Proposed Research Plan

- a. Personal Statement by the Applicant (one page): A personal statement by the applicant describing his/her career goals, future commitment to clinical translational research, and how this research project would help him/her to achieve these goals. Elaborate on future goals, not on the past. Stress the new, enhanced research skills and knowledge that will be acquired as a result of the proposed award. Address how this award will allow you to accomplish your career/training goals. If an applicant has considerable research experience in the same areas as the proposed research, reviewers may find that the program will enhance their research career.

Please use 11-point font as well as include applicant's name, title of the section and title of the specific component in the header (ex. Applicant: John Doe, MD, Proposed Research Plan, Personal Statement by the Applicant).

- b. Project Title
- c. Research Project Address CTSI's Translational Priority Areas: Please check at least one of the boxes provided on the application. The research project should address at least one of CTSI's translational priority areas.
- d. Structured Abstract: The abstract is a summary of the proposed research project. The following sections must appear as part of the structured abstract (250 word limit, using 11-point font, and include applicant's name and abstract title in the header):

-Background: Provide background information on the research topic.

-Research Question/Hypothesis: Concisely state the study hypothesis.

-Design: Describe the study as retrospective or prospective. Identify the study design. Interventional studies should be listed as a randomized clinical trial, non-randomized clinical trial, interventional case series, or interventional case report. Observational studies should be listed as a case control study, cross-sectional study, cohort study, or observational case series. A perspective, meta-analysis, or auto-designation study should be indicated, as appropriate.

-Participants/Animal: State the number of persons/animals and/or the number of controls if a separate control group is included.

-Methods/Approach: Concisely, describe the principal treatment(s), procedure(s), test(s), or observation(s) to be performed in order to answer the research question.

-Main Outcome Measures: Defines the main parameter(s) being measured (e.g., intraocular pressure, vision, electroretinography, inflammation, etc.).

-Innovation: Briefly summarizes the anticipated research results or innovative contributions/impact.

e. Specific Aims (one page, using 11-point font, and include applicant's name in the header): State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will exert on the research field(s) involved. List succinctly the specific objectives of the research proposed, e.g., to test a stated hypothesis, create a novel design, solve a specific problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop new technology that can be developed to improve health or health care.

f. Research Strategy (no more than four pages using 11-point font, and applicant's name in the header): Organize the Research Strategy in the specified order and using the instructions provided below. Start each section with the appropriate section heading (Significance, Innovation, and Approach). Study details should be cited using the Bibliography and References Cited section and need not be detailed in the Research Strategy.

-Significance/Relevance: Explain the importance of the problem or critical barrier to progress in the field that the proposed project addresses. Explain how the proposed project will improve scientific knowledge, technical capability, and/or clinical practice in one or more broad fields. Describe how the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field will be changed if the proposed aims are achieved. State the relevance to health problems in general and to health problems in urban settings where relevant.

-Innovation: Explain how the application challenges and seeks to shift current research or clinical practice paradigms. Describe any novel theoretical concepts, approaches or methodologies, instrumentation or intervention(s) to be developed or used, and any advantage over existing methodologies, instrumentation or intervention(s). Explain any refinements, improvements, or new applications of theoretical concepts, approaches or methodologies, instrumentation or interventions.

-Approach: Describe the overall strategy, methodology, and analyses to be used to accomplish the specific aims of the project. Include how the data will be collected, analyzed, and interpreted. 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.

g. Preliminary Data (no more than two pages using 11-point font, and formatted header with applicant's name): Include relevant preliminary data (graphs, tables, micrographs, etc.) that support the hypothesis and are in line with the Specific Aims. **Note**: The purpose of preliminary data is to demonstrate, where relevant, work that the candidate has already initiated on his/her research project, but not to demonstrate full competency in the applicants' research approach. If

no preliminary data is available, relevant data from outside sources may be used for this section. Please reference outside sources under the cited literature section of the application.

- h. Literature cited: Authors, title, journal, volume, pages, and year. Do not exceed 25 references. Cited Literature must be specifically related to the applicant's research. Please use 11-point font, and include applicant's name in the header.
- i. NIH Bio Sketch of the applicant (four pages)-Please refer to NIH website link for format, additional information, and samples: <https://grants.nih.gov/grants/forms/biosketch.htm>.

Section 8: Applicant's Financial Information

Please complete requested financial information. All questions pertaining to current award status and salary information must also be completed.

Section 9: Signature Page

Applicant, mentors, and department chair /division chief's signatures must be obtained to complete the submission process. The signature page can be found on the last page of the application. Please download the signature page form from the SC CTSI website (<https://sc-ctsi.org/training-education/mcd-cts-application-details>). Digital signature with a time stamp will be accepted if original signature is not able to be obtained. If you are not able to obtain all required signatures on the same page, please combine the various pages into one PDF document. Please upload the PDF copy of the signature page(s) to complete the submission process.

Miscellaneous Formatting Information: Please use an Arial, Helvetica, Palatino Linotype or Georgia typeface, a black font color, and a font size of 11 points or larger. A Symbol font may be used to insert Greek letters or special characters; the font size requirement still applies. A smaller type size is acceptable but it must be in black ink, and readily legible for figures, graphs, diagrams, charts, and tables. Use at least one-half inch margins (top, bottom, left, and right) for all pages, including continuation pages. Since a number of reviewers will be reviewing applications as an electronic document and not a paper version, applicants are strongly encouraged to use only a standard, single-column format for the text. Avoid using a two-column format since it can cause difficulties when reviewing the document electronically. The application must be single-spaced.

The deadline for submission of the application is 5:00pm on August 31, 2018. Incomplete applications, applications that do not adhere to the requirements, and/or applications submitted after the deadline shall not be considered for review.

Please complete and upload all required documents within the appropriate sections of the online application form at <https://webportalapp.com/appform/mcd-cts-award-2018>.

Receipt, Review, and Award Schedule

Call for Applications/Application Format Available	June 1, 2018 – August 31, 2018
Deadline for Letter of Intent	August 3, 2018 (5:00PM)
Deadline for Application Submission	August 31, 2018 (5:00PM)
Applicant Interviews (by invitation only)	November 8, 2018 (1:00PM-5:00PM)
Notification of Awards	November 30, 2018
MCD-CTS Scholar Awardee Orientation	December 6, 2018 (2:30PM-5:30PM)
Appointment Start Date	June 1, 2019