TL1 (T32) Pre-doctoral Clinical & Translational Research Training Program
Request for Applications

<table>
<thead>
<tr>
<th>Key Dates</th>
<th>Key Personnel</th>
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| **Release Date:** April 3, 2017               | Perry V. Halushka, PhD, MD  
Principal Investigator                      |
| **Application Deadline:** Thursday, May 11, 2017 Noon | Carol Feghali-Bostwick, PhD  
Associate Principal Investigator             |
| **Anticipated Award Start Date:** September 1, 2017 | Program Contact:  
Bridget Micka, MA  
TL1 Program Coordinator  
micka@musc.edu  
Phone: (843) 792-8446 |

SCTR TL1 Website: http://academicdepartments.musc.edu/sctr/education_training/TL1

The NIH-funded pre-doctoral training program is designed to increase the number of well-trained translational researchers who also will assume leadership roles. The program is designed for PhD and dual degree candidates with strong interest in clinical and translational research careers. The training program will provide early exposure and appropriate training in clinical/translational research methodology, the application of cutting edge technology to clinical research, and address pipeline issues by stimulating interest from doctoral students in health- and disease-related disciplines. The program combines rigorous research experiences and a complementary didactic curriculum with a team science approach.

**TL1 BENEFITS**

- Stipend support at the NRSA-established rate for pre-doctoral trainees. Mentors are required to supplement the trainee’s stipend up to the amount required by their respective college.
- Tuition Support (Fall & Spring Only)
- Up to $4,200 for research/training-related expenses, and $1,500 for travel to the national Association for Clinical and Translational Science (ACTS) education conference
- Customized Individual Development Plan (IDP)
- Support to develop an extramural fellowship training grant application
- Access to SCTR consultation, services and staff including, but not limited to: SUCCESS Center research navigation, biostatistics, subject recruitment, REDCap data capture software, animal/human-subject regulatory consults, protocol development consults, NIH Public Access compliance (publications in PubMed Central), intellectual property consults and forms
- Learn all the processes related to clinical/translational research
- Learn how to work as part of a team
- Exposure to clinical medicine
- Learn how to write an R21 grant based on one’s dissertation research.
- Learn about all aspects of grant management.
TABLE OF CONTENTS

- Eligibility and Trainee Expectations ........................................... Pages 1 and 2
- Mentor Expectations ................................................................. Page 3
- Application Instructions ............................................................. Page 5
- Letters of Support ................................................................. Page 8
- Signature Pages ................................................................. Page 9

ELIGIBILITY

- **Degree Requirements.** Pre-doctoral trainees must have received a baccalaureate degree by the beginning date of their TL1 trainee appointment and must be enrolled in a PhD, MD/PhD, or DMD/PhD program. Individuals who have been previously awarded a doctoral degree are not eligible for this program. Individuals currently supported by other Federal funds cannot be concurrently awarded a TL1 trainee appointment, however they may be eligible to apply to the TL1 program but will need to terminate offered federal funding by August 31, 2017. Please contact Bridget Micka (micka@musc.edu) as early as possible to discuss.

- **Time Commitment.** Trainees must commit 100% effort to the TL1 program – no exceptions, per federal NRSA guidelines. Vacation time follows the NIH guidelines.

- **Citizenship Status.** At the time of appointment to the training program, individuals selected to participate in the training program must be citizens or non-citizen nationals of the United States, or have been lawfully admitted to the United States for permanent residence and have in their possession Permanent Resident Card (USCIS Form I-551) or other legal verification of such status. Non-citizen nationals are persons born in lands that are not States but are under U.S. sovereignty, jurisdiction, or administration (e.g., American Samoa). Individuals on temporary or student visas are not eligible for NRSA support.

- **Training Support.** Appointment to the TL1 program is for a period of 1 year with the potential for a second year pending satisfactory progress. No individual trainee may receive more than 5 years of aggregate NRSA support at the pre-doctoral level.

- **Current TL1 trainees.** Current trainees are eligible to compete for a second year of support. However, as a part of their application, they must submit a current TL1 progress report. The report should include an update on the progress towards achieving the specific aims of the dissertation proposal, meetings attended, publications, and plans for completing the rest of the requirements of the TL1 program that extend beyond the initial year of funding (an outline is provided in the application).
EXPECTATIONS

A. TL1 – Trainee Expectations
TL1 trainees will fulfill the didactic and career development requirements outlined in the tables below, and of their respective colleges.

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<thead>
<tr>
<th>TL1 Required Didactic Training Components</th>
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<tr>
<td>Rigor and Reproducibility of Experimental Design Training (CGS 727)</td>
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<tr>
<td>Team Science Course (MCR 752)</td>
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<td>NRSA F Award Grant Writing (CGS 712)</td>
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<tr>
<td>Translational Medicine Seminars (CGS 716)</td>
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<td>TL1 Journal Club (CGS 716)</td>
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- All trainees must fill out a Program of Study Form and submit it Bridget Micka for approval by the TL1 Principal Investigator or Associate Principal Investigator.
- TL1 trainees in the College of Nursing and College of Health Professions PhD programs will fulfill their respective college's PhD didactic requirements.
- TL1 trainees in the PhD, MD/PhD, and DMD/PhD programs will fulfill the College of Graduate Studies PhD requirements.
- Biostatistical training for PhD and dual degree trainees in the College of Graduate Studies is obtained via the CGS 700 course. Nursing and Health Professions PhD trainees receive biostatistics training via their respective colleges.
- All TL1 trainees receive further education in human health and disease in the Translational Sciences Clinic and the Translational Medicine Seminars.
- TL1 Trainees must remain in good academic standing, which requires a minimum cumulative grade point average of 3.00 while making reasonable progress toward the graduate degree.

<table>
<thead>
<tr>
<th>TL1 Required Career Development Activities</th>
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<tr>
<td>Individual Development Plan</td>
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<tr>
<td>Transitioning the Trainees’ Support to Other Programs</td>
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<tr>
<td>Professional Development - Local / National Meetings</td>
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<tr>
<td>MUSC Research Day</td>
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<tr>
<td>Intramural Electives and Externships</td>
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<tr>
<td>Pre-doctoral Mentor Compact</td>
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<tr>
<td>Other ongoing related activities</td>
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As part of NIH reporting requirements, recipients of the TL1 must comply with yearly information requests for 15 years upon completion of their award (even after departure from MUSC). This request consists of a brief annual survey and current curriculum vitae.
B. TL1 – Mentor(s) Expectations

It is expected that the applicant will identify a mentor in their area of research interest who is likely to be a member of the faculty in the applicant’s unit. Under guidance and proofing from the mentor, the applicant will further develop their proposal that describes the research project to be undertaken. Your mentor (or each co-mentor) is responsible for:

- Guiding and encouraging the design and execution of an original, high quality, dissertation research project.
- Guidance for the following documents to include but not limited to:
  1. Initial TL1 application
  2. Individual Development Plan (IDP)
  3. Semi-Annual/Annual/Final progress reports
  4. Manuscripts
  5. Abstracts/Posters
  6. Presentations
  7. TL1 Journal Club (guidance and attendance)
- Providing career development and counseling
- Including TL1 trainee as an author and cite the SCTR TL1 grant and UL1 on all relevant publications, posters, and presentations.

“This publication [or project] was supported by the South Carolina Clinical & Translational Research (SCTR) Institute, with an academic home at the Medical University of South Carolina, through NIH/NCATS Grant Numbers TL1 TR001451 and UL1 TR001450.”

Your mentor should meet with you regularly and attend occasional meetings/trainings for TL1 trainees and mentors organized by SCTR Institute.

There is a place in the application to list the name, email, title, and department of the Primary Mentor, and the Primary Mentor will need to sign the signature page. If a co-mentor also is a part of the mentoring team, that person should sign as well.

Quality mentorship is fundamental to the future success of junior faculty, influencing trainees’ productivity in research, career satisfaction, informed career decision-making, networking within the profession, and career trajectory. By accepting the role of mentor, the mentor acknowledges this significant responsibility and agrees to the following:

- Help develop the skills needed to promote the career of the mentee. Mentor will set aside protected time to meet with mentee (every week at a minimum) to accomplish this task and will also remain available as needed via email and telephone.
- Ensure that the projected time supported by the award is being met.
- Ensure a mutually agreed upon set of expectations/goals are in place at the outset of the mentoring period and will work with the mentee to create an Individual Career Development Plan (IDP).
- Promote all ethical standards for conducting research including compliance with all institutional and federal regulations as they relate to responsible conduct in research, training in rigor, reproducibility and transparency, privacy and human subjects research, animal care and use, laboratory safety, and use of radioisotopes. Mentor will clearly define expectations for conduct of research and be available to discuss ethical concerns as they arise.
- Ensure that the mentee has sufficient opportunities to acquire the skills necessary to become an expert in an agreed area of investigation.
- Provide the mentee with the required guidance and mentoring, and will seek the assistance of other faculty and departmental / institutional resources when necessary.
• Encourage the interaction of the mentee with fellow scientists both intra- and extramurally and encourage the mentee’s attendance at professional meetings to network and present research findings.

• Ensure that the research performed by a mentee is submitted for publication in a timely manner and that she/he receive appropriate credit for the work she/he performs. Mentor will acknowledge her/his contribution to the development of any intellectual property and will clearly define future access to tangible research materials according to institutional policy.

• Commit to being a supportive colleague to trainees as they transition into the next stage of their career and to the extent possible, throughout their professional life.

• Play a fully involved role in the SCTR TL1 Program.

• Attend the mentee’s presentation at the TL1 Journal Club, grade the mentee’s presentation, and grade all the trainees’ worksheets. The mentor will provide feedback to the mentee about their presentation and written feedback on the trainee’s worksheets.

• Take training and development opportunities to enhance one’s own skills. Attend SCTR’s Annual Mentorship Training Symposium. Additional opportunities include Tools for Mentors and Mentees (held monthly) and the online Mentor Training Program: Optimizing the Practice of Mentoring through the University of Minnesota’s CTSA (free) UM CTSI Professional Development Course.
TL1 APPLICATION INSTRUCTIONS

The NIH-funded pre-doctoral training program is designed to increase the number of well-trained translational researchers who also will assume leadership roles. The program is designed for PhD and dual degree candidates with strong interest in clinical and translational research careers.

Please read these instructions carefully before beginning your application. The ENTIRE application package must be successfully submitted by May 11, 2017 @ 12:00 Noon EST via the SCTR AppSite portal.

INCOMPLETE AND/OR LATE APPLICATIONS WILL NOT BE ACCEPTED FOR ANY REASON!

SCTR TL1 WEBSITE, RFA, AND APPLICATION FORMS
http://academicdepartments.musc.edu/sctr/education_training/TL1

LINK TO THE TL1 APPLICATION IN THE SCTR APPSITE PORTAL
https://sctrweb2.musc.edu/appsite/tl_support_applications/new

QUESTIONS?
If so, please contact Bridget Micka, TL1 Program Coordinator, at micka@musc.edu or 843-792-8446.

APPLICATION INTERVIEWS
Applicants with competitive applications may be interviewed before a final decision is given.

ADDITIONAL INFORMATION
TL1 trainees will be selected based on a competitive application process in which the applicant’s qualifications and drive to pursue a successful translational research career will be reviewed.

- Trainees are expected to attend the Association for Clinical and Translational Science (ACTS) Conference sponsored by the Association for Clinical and Translational Science, which will be held in Washington, D.C. ~April 2018.

- Trainees are expected to attend all intramural requirements of the program.

- Progress Reports will be required at semi-annual intervals for the duration of your training at MUSC.

- Appointed TL1 Trainees are not allowed to simultaneously hold another appointment or position. Trainees are appointed full-time and must maintain that appointment during the entire award period. Trainees are not required to perform additional services for the graduate student fellowship stipend beyond normally required coursework and/or research activities, and must not hold any other type of employment or appointment.

- Trainees receive stipends related to their academic programs. They do not render services for pay, and therefore are not considered employees and are not eligible to pay into the state retirement system, nor will they accrue vacation, or service credits for the length of the award period. Monthly stipends for fellowships may be subject to federal, state and local taxes. Depending on a fellow’s residency status, their taxes may or may not be withheld from their stipend. Questions regarding taxes on stipends should be directed to the Susan Waltz, SCTR Business Office, 843-792-1540, or waltz@musc.edu.

Key Dates

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<tr>
<td><strong>Release Date:</strong></td>
<td>April 3, 2017</td>
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<tr>
<td><strong>Application Deadline:</strong></td>
<td>NOON May 11, 2017</td>
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<td><strong>Award Notification Date:</strong></td>
<td>August 1, 2017</td>
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<td><strong>Award Start Date:</strong></td>
<td>September 1, 2017</td>
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APPLICATION DOCUMENT REQUIREMENTS

- **Format:** All documents must be submitted as PDF files
- **Font:** Arial – no smaller than 11-point
- **Margins:** one inch (1”) on all sides
- **Letters of Support:** Address to: Perry Halushka, PhD, MD (TL1 Principal Investigator) and Carol Feghali-Bostwick, PhD (TL1 Associate Principal Investigator) – upload these docs to the SCTR AppSite portal as part of your application package – DO NOT send via email, hand delivery or interoffice mail.
- **Current TL1 trainees must submit a progress report in addition to the application.**

APPLICATION DOCUMENTS

Information needed for the online application:

- **NIH Predoctoral Biosketch** you must use the NIH Predoctoral format/instructions Link: [https://grants.nih.gov/grants/forms/biosketch.htm](https://grants.nih.gov/grants/forms/biosketch.htm)
- **Curriculum Vitae** (the below information should be included in your CV; no official documentation is needed)
  - In the **Personal Details and Contact Information section of your CV**, please include:
    - Personal Address
    - Personal Email Address
  - In the **Education section of your CV**, please include:
    - Academic Degree(s) undergraduate and graduate include: institution(s), major(s), degree(s) and year(s) awarded
    - Current MUSC Academic Degree Program(s), month/year you entered the program(s), current GPA for the program(s), and anticipated graduations date(s)
    - Date/Score of your PhD Program Qualifying Exam. If you have not taken the qualifying exam, please indicate the month/year that you expect to take it.
  - Comprehensive listing of publications, to date, in APA format
  - Indicate if you have received previous federal funding (eg. NIH, NRSA, CDC, etc.)
- **Essay** describing why you want to become a member of the TL1 program (include how you became interested in the program and your career goals).
- Description of your **Undergrad/Grad Research Experiences** that reflect an interest in translational research

GUIDE TO SCTR APPSITE PDF UPLOADS

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<thead>
<tr>
<th>Document</th>
<th>Page Limit</th>
<th>SCTR AppSite Upload</th>
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<tr>
<td>Applicant and Mentor(s) Signature(s) – Page 9 of this document</td>
<td>1 Page</td>
<td>Combined SINGLE PDF to the Personal/Research Statement Box</td>
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<tr>
<td>Career Development &amp; Training Plan</td>
<td>1 Page</td>
<td></td>
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<tr>
<td>Research Plan and Bibliography</td>
<td>3 Pages (excludes Bib)</td>
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<tr>
<td>Progress Report (Current Trainees Only)</td>
<td>3 Pages</td>
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<tr>
<td>Department or Division Chair Letter of Support</td>
<td>1 Page</td>
<td>PDF format: 1st Recommendation Letter Box</td>
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<tr>
<td>Primary Mentor Letter of Support</td>
<td>1 Page</td>
<td>SINGLE PDF: 2nd Recommendation Letter Box</td>
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<tr>
<td>Primary Mentor Training Table (last 7 years)</td>
<td>No Limit</td>
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<tr>
<td>Primary Mentor NIH Biosketch</td>
<td>5 Pages</td>
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<tr>
<td>Additional Support Letter</td>
<td>1 Page</td>
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<tr>
<td>Applicant NIH Biosketch</td>
<td>5 pages</td>
<td>SINGLE PDF to Resume Box</td>
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<tr>
<td>Applicant Curriculum Vitae (CV)</td>
<td>No Limit</td>
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<td>Essay of Interest in TL1 Program</td>
<td>No Limit</td>
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<tr>
<td>Undergrad/Grad Research Experience</td>
<td>No Limit</td>
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CAREER DEVELOPMENT & DIDACTIC TRAINING PLAN (1-Page Limit)

Please note that this section has two components: the Career Development Plan, and the Didactic Training Requirements.

- **Career Development Plan.** The TL1 Career Development Activities are defined in the table on Page 3. Use this list, and other training opportunities, to describe areas/skills in which you need further development; and describe how you will gain skills, knowledge, and experience in Clinical and Translational Science through the TL1 program. As appropriate to your background and experience, include and describe what you expect to learn from the mentored research experience as well as structured activities, such as course work or technique workshops. It is important that you consider and discuss how you anticipate the TL1 will enhance your training and research compared to your training without the award. Include a statement as to why you are interested in the TL1 Program.

- **Didactic Training Requirements.** The TL1 didactic training activities are defined in the table found on page two. Draw from the list areas in which you need development and describe how you will gain skills, knowledge, and experience in Clinical and Translational Science through the TL1 program. Stress the new, enhanced research skills and knowledge you will acquire as a result of the proposed award. As appropriate to your background and experience, include and describe what you expect to learn from the mentored research experience as well as structured activities, such as course work or technique workshops. **It is important that you consider and discuss what you would do differently if you receive this award compared to your training without the award.**

RESEARCH PLAN OUTLINE (2-Page Limit)

The research plan should include:

- **Title.** of the proposed project.

- **Statement of the Research Problem.** This should be an introductory section that places the problem in context in the field. A number of key references should be cited to provide scholarly background. From this section, the readers should be able to determine why it is of interest to examine the proposed problem.

- **Specific Aims of the Project.** An outline that lists the individual experimental issues that are to be addressed.

- A brief description of the **Methods** to be employed. A (somewhat) detailed description of the experimental system to be examined, the materials available, the procedures to be employed, expertise available in the sponsor lab, and the rationale for the design of the project. From this section, the reader should be able to determine how the data to be gathered will help solve the problem identified. The reviewers should also be able to assess feasibility of the proposal both in terms of experimental design and time frame for completion.

- Your **Bibliography** does not count towards the three-page limit.
LETTERS OF SUPPORT (1-Page Limit)

Department or Division Chair Letter. A letter from the applicant’s department or division chair is required. The support letter should speak to the potential trainee’s academic and research potential, and any resources the department/division will bring to bear to support their research and career development goals.

Primary Mentor. A letter of support from the primary mentor is required and should consider the following:

- Describe the mentor’s research focus.
- Describe the goals and how you will foster an environment conducive to a successful clinical and translational career path.
- Describe additional resources/experiences you might bring to bear during the candidate’s appointment to enhance their training and research agenda.

Additional letter(s) of support is/are required for secondary/co-mentors which should also address the above.

PROGRESS REPORT (Current TL1 Trainees Only) (3-Page Limit)

The progress report should include:

- **Update** of current project including progress made and TL1 requirements completed to date.
- **Publications, Abstracts, and Presentations** that have been submitted and/or accepted as a result of your TL1 project. Please include any works that are in the planning stages and when they will be submitted.
- **Demonstrate the need for second year** and describe the timeline for completing the remaining TL1 projects. Include how the first year in the TL1 program has influenced your thoughts and thinking process with regard to team science and clinical and translational research.
- Since the program will not require the trainee to attend the ACTS meeting a second year, please identify a national meeting in which you might present your work. In order to qualify to have some of the expenses of the meeting paid for by the TL1 grant, you must submit the abstract for prior approval.

*PLEASE MAKE SURE TO PRINT OUT COPIES OF YOUR APPLICATION*

INCOMPLETE AND/OR LATE APPLICATIONS WILL NOT BE ACCEPTED FOR ANY REASON!
ALL PARTIES AGREE AS FOLLOWS
Cite grant for any publication the trainee completes during and after their award relating to their research project and any work the trainee completes in their mentor’s lab / department.

“This publication [or project] was supported by the South Carolina Clinical & Translational Research (SCTR) Institute, with an academic home at the Medical University of South Carolina, through NIH/NCATS Grant Numbers TL1 TR001451 and UL1 TR001450.”

APPLICANT SIGNATURE

I certify that the statements herein are true and complete to the best of my knowledge and that I will comply with all applicable SCTR TL1 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 ________________

MENTOR SIGNATURE(s)

As Mentor(s), I take responsibility in:

• Guiding and encouraging the design and execution of an original, high quality, dissertation research project.
• Guidance for these documents to include but not limited to:
  1) Initial TL1 application
  2) Individual Development Plan
  3) Semi-Annual/Annual/Final Progress Reports
  4) Manuscripts
  5) Abstracts/Posters
  6) Presentations
  7) TL1 Journal Club (guidance and grading)
• Providing career development and counseling
• Providing data for the annual NIH SCTR report (December 2017)
• Include TL1 trainee as an author and cite the SCTR TL1 grant on all relevant publications, posters, and presentations.

“This publication [or project] was supported by the South Carolina Clinical & Translational Research (SCTR) Institute, with an academic home at the Medical University of South Carolina, through NIH/NCATS Grant Numbers TL1 TR001451 and UL1 TR001450.”

I/We read the potential trainee’s TL1 application package and provided constructive feedback, both for the career/training components and the research plan. To the maximum extent possible, I/We will meet regularly with the trainee (at least bi-weekly), attend TL1 semi-annual progress meetings with TL1 leadership, ensure that all the requirements of the TL1 program are met and attend the annual SCTR Mentorship Training Symposium.

Signature of Primary Mentor __________________________ Date ________________

Signature of Co-Mentor (if applicable) __________________________ Date ________________