**MSCI/MTPCI Mentors**

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<tr>
<th>Name</th>
<th>Phone number</th>
<th>Email Address</th>
<th>Specialty</th>
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<tbody>
<tr>
<td>Dave Warren, MD, MPH</td>
<td>314-454-8225</td>
<td><a href="mailto:dwarren@wustl.edu">dwarren@wustl.edu</a></td>
<td>Internal Medicine</td>
</tr>
<tr>
<td>Patty Cavazos-Rehg, PhD</td>
<td>314-362-2152</td>
<td><a href="mailto:pcavazos@wustl.edu">pcavazos@wustl.edu</a></td>
<td>Infectious Diseases</td>
</tr>
<tr>
<td>Dominic Reeds, MD</td>
<td>314-362-8230</td>
<td><a href="mailto:dreeds@wustl.edu">dreeds@wustl.edu</a></td>
<td>Psychiatry</td>
</tr>
<tr>
<td>Roger Yusen, MD, MPH</td>
<td>314 454-7100</td>
<td><a href="mailto:yusenr@wustl.edu">yusenr@wustl.edu</a></td>
<td>Internal Medicine</td>
</tr>
</tbody>
</table>

Preferred method of contact: e-mail
Virtual Office Hours: None
In-Person Office Hours: e-mail to set up a meeting time

**Course Support**
- Jen Mosher: mosherj@wustl.edu
- Jesseca Leggett: jleggett@wustl.edu
- Suzanne Fragale: fragale@wustl.edu
- Rachel Lamp: rlamp@wustl.edu

**About This Course**

**Required Texts:**
None

**Other Course Materials:**
Presentation materials will be e-mailed out to scholars before each session. Occasionally articles will also be provided that are relevant to the material or seminar format. These materials will also be posted in Blackboard.

**Course Description:**
An important learning experience in research is the presentation and critical discussion of research designs, methodologies, and projects at various points in their evolution. Each scholar will formally present his or her own research in progress once per year for feedback by peers and faculty from multiple disciplines. These interdisciplinary presentations will focus on the research methodology and design, specific aims, and
presentation style. The seminar will provide scholars with an opportunity to network with peers, faculty and mentors to discuss research questions and identify potential strategies to overcome challenges in their research. The second Tuesday of each month, scholars will attend Career Development Seminar presentations by experts from Washington University and other organizations to gain critical skills fundamental for clinical research. Past topics have included budgeting, grant management, data management, best practices for mentoring and NIH Training Grants, among many other topics.

Goals of the Course:
• Demonstrate and refine critical skills for clinical and translational research including study design, data analysis, understanding ethical and legal issues related to research, and scientific communication.
• Develop skills for critical review and critique of clinical and translational research including preparing scholars to participate in study section reviews for NIH and other funding bodies.
• Effectively communicate suggestions for improving and refining clinical research study design, data analysis and data management to peers.
• Enhance oral and visual presentation skills for an interdisciplinary audience.

Course Requirements:
• Meet the minimum attendance policy, as defined below
• Participate in all MTPCI Seminars attended
• Present research in progress once during the academic year, following the guidelines outlined in the Speaker Requirements section of this syllabus
• 2nd year MTPCI scholars should be available to facilitate 1-2 small group discussions per semester. * For additional instructions, please refer to Small Group Discussions under the Format for Sessions with One Presentation
• Complete evaluations for all Seminars attended

Course Schedule
This seminar course meets on Tuesdays from 4:00-5:00pm. Once a month the Career Development Seminar will replace seminar and the time for those sessions will be 3:30-5:00pm. The seminar schedule will be provided at the beginning of the semester.

The Program and your instructors respect your right to observe religious holidays. If the class schedule presents problems for you with attendance or your scholar presentation, notify the CRTC staff.

Speaker Schedule
The speaker schedule is developed prior to the start of the semester with considerations for the last time a scholar presented and reasonable expectations for research progress. The speaker schedule may be changed throughout the semester. Be sure to check Blackboard for the most recent schedule. If a scholar identifies a conflict with his/her scheduled presentation date, he/she should contact other scholars to trade dates. Scholars should ensure that the traded date will not affect his/her mentors’ abilities to attend seminar. Once a trade is made, please contact Jennifer Mosher, mosherj@wustl.edu to officially change the schedule.

Small Group Facilitator Schedule
The facilitator schedule is developed prior to the start of the semester. Be sure to check Blackboard for the most recent schedule. If a scholar identifies a conflict with his/her scheduled facilitation date, he/she should contact other 2nd year MTPCI scholars to trade dates. Once a trade is made, please contact Jennifer Mosher, mosherj@wustl.edu to officially change the schedule.

Assessment/Grading
Grades for the course will be on a pass/fail basis and will be based on attendance and participation. Scholars who do not fulfill the minimum course requirements, will not pass the course. Scholars in danger of not passing the course should meet with Dr. Cavazos or Dr. Warren prior to the end of the semester.
Tardiness Policy
Career Development Seminars begin at 3:30pm and regular weekly MTPCI Seminars begin promptly at 4:00pm. Late scholars should use the door furthest from the sign-in table to avoid disrupting the speaker. Students late to class should also look for seating in the front of the room. This will eliminate any unnecessary disruption to the speaker and to the rest of the scholars. Please refer to the seminar schedule for a complete listing of dates and times for the entire academic year.

Attendance Requirement:
Scholars must participate in at least 75% of the seminars. At a minimum, scholars are required to physically attend 50% of the seminars each semester, supplemented with an additional 25% of the seminars viewed and evaluated online. Failure to physically attend 50% of the seminars will result in a failing grade. Students are responsible for checking their attendance record on Blackboard to ensure they comply with the course policies. If you think there is an error on Blackboard, please contact the CRTC staff.

Most seminars are recorded, and the audio recording/slide capture is available on Blackboard under the Course Information tab. Speakers are encouraged to watch their own presentations in order to improve presentation skills for future talks. In order to count a video recording toward your attendance, the required evaluations must be completed, including a critique of the speakers’ specific aims and the completion of the standard presentation evaluation form used at all sessions. Scholars should send completed specific aims critiques and video evaluations to Jesseca Leggett, jleggett@wustl.edu prior to the last day of class. Seminar videos, evaluations, and specific aims pages can be found on Blackboard.

Technology Usage During Class:
The use of handheld devices and laptops is expressly prohibited during seminar. Pagers should be set to vibrate to avoid disruption during presentations. If you are paged, please leave the room to answer phone calls and pages to be respectful of presenters.

Feedback and Grading Timeline:
Responses to e-mails from staff are typically within 2-3 business days. Please allow more time for director responses to e-mails. Evaluations are typically compiled and sent via e-mail within a week of your presentation.

Speaker Requirements
All speakers will receive presentation instructions approximately two weeks before their scheduled presentation. Scholars should prepare a 20 minute presentation with 5-10 minutes focused on the specific aims and significance and 10-15 minutes focused on the clinical research design and approach. The CRTC will send each mentor an invitation to attend their scholar’s presentation. Scholars should also invite their mentors to attend their presentations as soon as they receive their schedule.

One Week Prior to the Presentation:
The scholar must email the following to the CRTC (Jennifer Mosher, mosherj@wustl.edu ) no later than 3:00pm on the Tuesday before the presentation:
- If the scholar is the sole presenter, a double-spaced summary of their specific research aims (No more than 2 pages – front and back of a single page)
  - Prior to writing the Specific Aims page, scholars should review Specific Aims resources from Northwestern University (Aims Pages, Part 1 & 2)
- At least one question they would like addressed by the audience (speakers are welcome to develop more than one)

For the Presentation:
• Slides must be sent to CRTC Staff (Jennifer Mosher, mosherj@wustl.edu) on the Monday before the presentation. Scholars may continue to edit their slides after submitting them to Jennifer, but will be responsible for bringing their USB flash drive to the seminar. Scholars who make edits to their slides after sending them to Jennifer should arrive at least 5 minutes early.
• Scholars must include a grant acknowledgement slide that cites the appropriate grant.
• Scholars will complete and return a media consent form. Scholars can choose whether or not they would like the recording of their presentation to be posted on Blackboard. However, the form must be completed to indicate media preferences. This form must be returned to Jennifer Mosher, mosherj@wustl.edu, before the presentation.

After the Presentation:
• The small group evaluation forms completed during the seminar will be shared with the presenting scholar and course leaders. They will also be shared with the primary mentor unless otherwise specified by the scholar at the time of the presentation.
• Speakers are strongly encouraged to discuss the comments and evaluation forms with their mentorship committees during the required bi-annual meetings.

Format for Sessions with One Presentation:
4:00-4:05 Announcements
4:05-4:25 Scholar Presentations
Scholar will complete a 20 minute presentation, including 5-10 minutes focused on specific aims and significance and 10-15 minutes focused on the clinical research design and approach. Audience members are advised to make notes for the upcoming discussions on provided evaluation forms.
4:25-4:45 Small Group Discussions *
Once the scholar presentation is complete, the scholar audience will meet in small groups for discussion. Scholars will be assigned to either: a) a significance group, b) an approach group or c) the specific aims group.
• Each group will be facilitated by a KL2 Scholar, a 2nd year MTPCI scholar, or faculty member and will have 20 minutes to discuss the presentation, focusing on the topic assigned to their group.
• The presenter will be available to answer questions during the small group discussions.
• All questions proposed by the presenter for feedback will be assigned to small groups by the faculty facilitator based on the assigned area of focus.
• Significance and Approach Groups: will elect a representative to compile the results of their discussion on one evaluation form as well as to present their feedback to the large group at the end of the session. Each group’s evaluation will be provided to the presenter.
• Specific Aims Group: will be expected to review the specific aims page on Blackboard prior to the scholar presentation, and will document written feedback to be provided for the presenter and his or her mentor.
  o Scholars should review Specific Aims resources from Northwestern University prior to class (Aims Pages, Part 1 & 2)
• Scholars are encouraged to sit with their groups during the presentation to maximize discussion time and minimize disruptions when transitioning from presentations to group discussions.
4:45-5:00 Share Results of Small Group Discussions
Elected representatives for each small group will present a summary of their group’s discussion. The presenting scholar and his/her mentors will have an opportunity to respond and answer questions.

Format for Sessions with Two Speakers:
4:00-4:20 Scholar #1 Presentation
First scholar will present their research focusing on the Specific Aims, significance, and approach as outlined in the one-speaker format.
4:20-4:30 Scholar #1 Discussion/Question & Answer Session
Faculty and K scholars will facilitate a large group discussion and question and answer session. During this time, the audience should provide feedback in response to all questions proposed by the presenter. Each audience member should also complete a written evaluation form.
(repeat for Speaker #2)
4:30-4:50 Scholar #2 Presentation
4:50-5:00 Scholar #2 Discussion/Question & Answer Session

*With the permission of the directors, advanced scholars have the alternate option of presenting a manuscript or grant to the scholar audience for feedback. The manuscript or grant to be presented must be provided to the CRTC staff two weeks prior to the presentation date. The manuscript/grant will then be distributed prior to class by CRTC staff to the students to read the documents to be discussed. Scholars will complete a 15 minute presentation of their manuscript/grant briefly covering the background, methods, results, and conclusion. Once the scholar presentation is complete the scholar audience will provide feedback on the grant/manuscript to the presenter who will have the opportunity to respond and answer questions.

**Technical Support**

If you have any technical problems accessing [Blackboard](mailto:crtc@email.wustl.edu) please e-mail crtc@email.wustl.edu. Note, this mailbox is not monitored in the evening or on weekends. If you need immediate help after hours please put a service request into [https://wusm.service-now.com](https://wusm.service-now.com).

**CTSA Core Competencies for Master’s Degree Candidates**

The following Clinical and Translational Science Award (CTSA) competencies are met by this course.

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<th>Core Thematic Areas</th>
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<tr>
<td>I. CLINICAL AND TRANSLATIONAL RESEARCH</td>
<td>• Identify basic and preclinical studies that are potential testable clinical research hypotheses.</td>
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<td>QUESTIONS</td>
<td>• Identify research observations that could be the bases of large clinical trials.</td>
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<td>• Define the data that formulate research hypotheses.</td>
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<td>• Prepare the background and significance sections of a research proposal.</td>
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<td>II. LITERATURE CRITIQUE</td>
<td>• Summarize evidence from the literature on a clinical problem.</td>
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<td>• Describe the mechanism of a clinical problem reviewed in a manuscript.</td>
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<td>• Identify potential sources of bias and variations in published studies.</td>
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<td>• Interpret published literature in a causal framework.</td>
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<td>• Identify gaps in knowledge within a research problem.</td>
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<td>III. STUDY DESIGN</td>
<td>• Formulate a well-defined clinical or translational research question to be studied in human or animal models.</td>
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<td>• Propose study designs for addressing a clinical or translational research question.</td>
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<td>• Assess the strengths and weaknesses of possible study designs for a given clinical or translational research question.</td>
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<td>• Design a research study protocol.</td>
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<td>• Identify a target population for a clinical or translational research project.</td>
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<td>• Identify measures to be applied to a clinical or translational research project.</td>
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<td>• Design a research data analysis plan.</td>
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<td>• Determine resources needed to implement a clinical or translational research plan.</td>
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<td>IV. RESEARCH</td>
<td>• Compare the feasibility, efficiency, and ability to derive unbiased inferences</td>
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### IMPLEMENTATION
- Assess threats to internal validity in any planned or completed clinical or translational study, including selection bias, misclassification, and confounding.
- Integrate elements of translational research into given study designs that could provide the bases for future research, such as the collection of biological specimens nested studies and the development of community-based interventions.

### V. SOURCES OF ERROR
- Describe the concepts and implications of reliability and validity of study measurements.
- Evaluate the reliability and validity of measures.
- Assess threats to study validity (bias) including problems with sampling, recruitment, randomization, and comparability of study groups.
- Differentiate between the analytic problems that can be addressed with standard methods and those requiring input from biostatisticians and other scientific experts.
- Assess data sources and data quality to answer specific clinical or translational research questions.

### VI. STATISTICAL APPROACHES
None

### VII. BIOMEDICAL INFORMATICS
None

### VIII. RESPONSIBLE CONDUCT OF RESEARCH
- **VIII.a. Clinical Research Ethics Competencies**
  None
- **VIII.b. Responsible Conduct of Research Competencies**
  None

### IX. SCIENTIFIC COMMUNICATION
- Communicate clinical and translational research findings to different groups of individuals, including colleagues, students, the lay public, and the media.

### X. CULTURAL DIVERSITY
- Recognize the demographic, geographic, and ethnographic features within communities and populations when designing a clinical study.
- Critique studies for evidence of health disparities, such as disproportional health effects on select populations (e.g., gender, age, ethnicity, race).

### XI. TRANSLATIONAL TEAMWORK
- Advocate for multiple points of view.
- Clarify language differences across disciplines.
- Demonstrate group decision-making techniques.
- Manage a clinical and/or translational research study.

### XII. LEADERSHIP
- Maintain skills as mentor and mentee.
- Validate others as a mentor.
- Foster innovation and creativity.

### XIII. CROSS DISCIPLINARY TRAINING
None

### XIV. COMMUNITY
- Specify how cultural and linguistic competence and health literacy have an
Course Policies

Participation (Expectations):
- It is vitally important that our classroom environment promote the respectful exchange of ideas. This entails being sensitive to the views and beliefs expressed during discussions whether in class or online.
- Your success in this course will heavily depend on your ability to communicate, engage and participate in all course activities. Successful completion of this course requires that a student keep up with all assignments and prep work for the lab components.

If you are unable to participate in the scheduled class activity or discussions you must notify the coursemaster within the week of that class module or discussion. An unexcused failure to engage or participate with the class will be counted as an absence; unexcused absences may result in failure. The coursemaster reserves the right to make judgment to accept and/or make-up assignments missed because of failed participation in the course activities.

Drop Dates:
If the occasion should arise that you want or need to drop this class, please see me first. You can drop for any reason during the course of the semester, however you may only receive a partial or no tuition reimbursement depending upon how far into the semester you drop the course. See the Academic Calendar for specific dates and reimbursement policies. Note, late withdrawals will also appear on your transcript as a withdrawal.

CRTC Academic Policy Guidelines:
Guidelines regarding CRTC course registration and enrollment, grades, tuition obligation, and academic leave are consolidated in the CRTC Academic Policy Guidelines. Please take a moment to review this document.

CRTC Guidelines for Academic and Non-Academic Transgressions:
By registering for this course you have agreed to the terms of the CRTC Guidelines for Academic and Non-Academic Transgressions. If you have not already reviewed this policy, please be sure to before beginning any CRTC related coursework.

Academic Integrity/Plagiarism:
- Academic dishonesty is a serious offense that may lead to probation, suspension, or dismissal from the University. One form of academic dishonesty is plagiarism – the use of an author's ideas, statements, or approaches without crediting the source. Academic dishonesty also includes such acts as cheating by copying information from another student. Plagiarism and cheating are not acceptable.
- Academic dishonesty will be reported to the Office of the Registrar for possible action. The coursemaster will make an academic judgment about the student’s grade on that work and in that course. The CRTC process regarding academic dishonesty is described in the CRTC Guidelines for Academic and Non-Academic Transgressions.

Writing Assistance:
For additional help on your writing, consult the expert staff of The Writing Center in Olin Library (first floor). It can be enormously helpful to ask someone outside a course to read your essays and to provide feedback on strength of argument, clarity, organization, etc.

Disability Resources:
Washington University is committed to providing accommodations and/or services to students with documented disabilities. Washington University’s Cornerstone: Center for Advanced Learning Disability Resources is the...
University’s official resource for students with disabilities and students with suspected disabilities. DR assists students with disabilities by providing guidance and accommodations to ensure equal access to our campus, both physically and academically. To learn more about its services, initiate the process of formal documentation and/or to arrange for accommodations, please contact Disability Resources at the start of the course.

**Mental Health Resources:**
Mental Health Services’ professional staff members work with students to resolve personal and interpersonal difficulties, many of which can affect the academic experience. These include conflicts with or worry about friends or family, concerns about eating or drinking patterns, and feelings of anxiety and depression. See: [http://shs.wustl.edu/MentalHealth](http://shs.wustl.edu/MentalHealth).

**Reporting Policies:**
Please also review the CRTC website for policies regarding sexual assault reporting and reporting concerns about bias, prejudice or discrimination.