A primary goal of all Research Track participants is the submission of a manuscript to a peer-reviewed journal for possible publication. This submitted manuscript may also be utilized to fulfill the mentored scholarly activity requirement of the School of Medicine. The manuscript submission must be submitted by Dec 1st of Phase IV. The School of Medicine’s curriculum includes a four year longitudinal course requirement for all students to pursue and complete a mentored scholarly project; the Research Track substitutes the requirement as long as a student is participating in the track.

**Course Director:**
Randy Ross, MD
Randy.ross@ucdenver.edu

**Program Coordinator:**
Katie Watts
katie.watts@ucdenver.edu
303-724-7731
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For questions related to Research Track: You are welcome to contact us directly, or email at coloradoreserachtrack@ucdenver.edu. E-mails will be checked daily and answered within 24 hours during weekdays, but may not be answered on weekends. Please check the calendar regularly for session updates.

Goals/Requirements Phase IV:
- You may spend up to 12 weeks (three 4-week rotations) in a full time elective research experience during Phase IV. You will receive grades for these courses in addition to the MSA grade. It is recommended that you complete the first four week rotation in the first few months of Phase IV (August or earlier); It is recommended that you start your second 4-week rotation at least three months after the first rotation, Both the first and second rotation should be completed before Dec 1 of Phase IV. You will receive a stipend of $4000 ($2000 per month). Note: Research Track students may need to complete elective rotations in their mentor’s lab in the Aurora/Denver area during Phase IV.
  - Course 8601: May-August – goal should be to have first submission by the end of this month
  - Course 8602: Sept-December (generally 3-4 months after first month) – appropriate for rewriting and resubmission
  - Course 8602 may be repeated once for credit; however, there is no stipend for the second month.
  - Grading Rubrics – Due the last day of the rotation
- Student must submit an abstract and present at a national non-student meeting (Remember abstract deadlines are often 6 months before a meeting) * Refer to Appendix B for travel information
  - You are not eligible to attend a national meeting during ICCs, during the week of the match, or during graduation exercises. For the 2013-2014 academic year, dates you are not eligible to attend a national meeting:
    - Mar 3-21, 2014
    - May 5-16, 2014
    - May 23-24, 2014
  - Please be thoughtful in planning which meeting to attend. Meetings which occur between Nov 1 and Jan 31 of each year may conflict with residency interviews. Dates which are risky:
    - Nov 1 2013 - Jan 31 2014

In order to complete Research Track requirements during your fourth year you need to attend and present at a national/international meeting in the NAFTA zone (United States, Canada, and Mexico). You can attend other conferences, but it will not complete the Research Track requirement and may not be supported financially by the track.

- Submit a first-author manuscript and evidence of submission Submit by December 1st (NOTE THIS IS DIFFERENT THAN GRADES FOR 8601 OR 8602)
This is what your fall MSA grade is based on
- All research track students will present at the MSA Capstone presentation in March of graduating year.
- Optional – Students present a poster format at the annual Health Sciences Center Research Day—December of Phase IV.

**Learning Objectives:**

- Receive a second stipend during the 4th year of medical school
- Present their research at a national meeting in their specialty
- Submit a first-author manuscript prior to residency

Required only if your project includes human subjects:

- **Colorado Multiple Institutional Review Board (COMIRB)** – If your project involves human subjects you must complete COMIRB training/certification on line and plan ahead to submit your protocol as soon as possible. [http://comirbweb.ucdenver.pvt/portal/](http://comirbweb.ucdenver.pvt/portal/)

Required only if your project includes vertebrate animal subjects:

- If your project involves vertebrate subjects your project must be approved by IACUC. Plan ahead to submit your protocol as soon as possible.

**Attendance:** Sessions at which attendance is required will be so designated in orientation and by calendar invites and/or communicated via e-mail to your UCDenver e-mail account. Otherwise you will be expected to organize your own schedule, with guidance from your mentor.

Please refer to Essentials Core General Information for full description of requirements.

- **Failure to attend a required session will be considered a Professionalism issue:**
  - 1st unexcused absence in a Phase – the Assistant Dean, Essentials Core Curriculum will contact the student, the situation will be discussed, and the student will be warned that a second infraction will result in filing a Professionalism Feedback Form.
  - 2nd or subsequent unexcused absence in a Phase – the student will meet with Dr. Ross, who may file a Professionalism Feedback Form.
  - At any time during a Phase, if a second Professionalism Feedback Form is filed owing to a student’s unexcused absence at a required session, the student’s case will be referred to the Professionalism committee.

Having a negative impact on the small group learning environment, including arriving late for a session will be treated as a separate Professionalism issue.

**Course Evaluations:** Students will be required to complete online evaluations.
Grading for Phase IV Research Track Course IDPT 8601
IDPT 8601 - Grading Rubric

Honors:

Completion of an abstract appropriate for submission to a non-student national meeting (student must submit name of the meeting, abstract submission dates, and intent to attend and present at the meeting if the abstract is accepted). If the submission deadline has passed, student must provide evidence of abstract submission, and, if available, the results.

and

Submission of a first-author manuscript for review for possible publication (student must provide a copy of the manuscript and evidence of submission, such as an email from a scientific journal or book editor).

High Pass

Completion of an abstract appropriate for submission to a non-student national meeting (student must submit name of the meeting, abstract submission dates, and intent to attend and present at the meeting if the abstract is accepted). If the submission deadline has passed, student must provide evidence of abstract submission, and, if available, the results.

or

Submission of a first-author manuscript for review for possible publication (student must provide a copy of the manuscript and evidence of submission, such as an email from a scientific journal or book editor).

Pass

Evidence of progress towards completion of a scientific project, including:

A draft of a first-author scientific manuscript

And either

The current status of the project and a reasonable plan, including a time-line, for how the project and the accompanying manuscript will be completed
Or

A description of what barriers prevent completion of the project, what attempts were made to overcome the barriers, and, if the project is not to be completed, what was learned from the project.

Withdrawing from the Track

If a student is unable to continue with the Research Track, the student must meet with the Research Track Director to review issues and it will only at that time where a decision will be made if the student is to continue with the program. If a decision has been made that the student is to drop the research track program, the student must contact the MSA director to start a plan for a new MSA project. Student’s that transfers from the research track are not eligible to use the project from the research track to meet MSA requirements.

Stipends

The stipends are supported by a grant or department. During phase I and IV research track students receive two 1-month $2000 stipends.

Resources available to Research Track students

HEALTH SCIENCE LIBRARY—the Research Track program has librarian who can help with research for the background sections of proposals and with systematic reviews. Librarians can assist with:

- Problem identification and focus
- Question formulation
- Search strategy
- Identifying resources for literature review
- Organizing and managing citations
- Manuscript style requirements
- Scouting journals for publication

Research Track students can contact the librarian to schedule a FREE individual consultation. Most consultations are scheduled for an hour and provide training and help in customizing your research strategy for PubMed, Google Scholar, or other resources such as EMBASE (European and international medical journals), Cochrane Library (evidence based systematic reviews), genetic/molecular biology or legal/historical/ethics resources. After the initial consultation librarians are available via email, phone or in person for follow up. Contact:

Basic Science Research Lynne Fox (303-724-2121)
Clinical Research John D Jones Jr (303-724-2117)
Global Health John D Jones Jr (303-724-2117)
Humanities & Social Sciences Lilian Hoffecker (303-724-2121)
Public Health & Epidemiology Ben Harnke (303-724-2146)

Students can also contact the Library via the Ask Us! link on the Library’s homepage. Please provide information on your research topic or identify your thematic area as part of your Ask Us! request.

Writing Center Resources:
The campus writing center is an excellent resource to help you with your rough and final draft papers. The writing center is available as follows:

- Health Sciences Library 1204, Anschutz Medical Campus
  - TF 10-6
  - Sun 2-8
- North Classroom 4014, Denver Campus
  - M-Th 9-6
  - F 9-2
- Online:
  - [http://www.ucdenver.edu/academics/colleges/CLAS/Centers/writing/aboutUs/Pages/onlineConsultations.aspx](http://www.ucdenver.edu/academics/colleges/CLAS/Centers/writing/aboutUs/Pages/onlineConsultations.aspx)
  - Every evening 6-10
- Drop-Box

BIOSTATISTICAL SUPPORT - The Research Consulting Laboratory is available without charge to Research Track students. The RCL can help with study design, power & sample size calculations, data analysis and interpretation. You can make an appt. by calling 303-724-4619, rcl@ucdenver.edu. Please be sure to identify yourself as a Research Track/MSA student.

Research Track Mentor Expectations:

- Meet with students to explore projects and develop an Individualized Research Plan (to be used as an application to the program).
- Work with the student to develop a plan that is feasible in the limited time available to a medical student, will lead to a first-author publication, and where the manuscript reflecting the results obtained in Phases I and II can be deferred to Phase IV for submission.
- Sign off on student agreement, including meeting/communication schedule, and work on your professional relationship
- Review student’s critical literature reviews
- Work with the student on data collection and analysis
- Help the student develop a first author paper
- Help develop and review the work plan and timing
• Work with the student to write abstracts and to choose an appropriate scientific meeting for abstract submission and attendance during Phase IV
• Help the student gather, analyze and prepare for capstone presentation
• This is a 4 year project-- the mentor and student should work together for that entire period
• Always be attentive to the student’s rigor and professional development