Finding a Research Mentor

Research Opportunities at Michigan Tech
The Process

- Identify an interesting field
- Identify possible mentors
- Research faculty mentors
- Prepare your resume
- Contact potential mentors
- The interview
- Accepting a position
Identify an interesting field

- Make a list of subjects that you find most interesting
  - Explore your textbook indices
  - Explore departmental web sites
- Remember, research is interdisciplinary
Identify Possible Mentors

- Ask your TA’s and Professors
- Talk to your academic advisor
- Talk to other students – older students
- Use search engines to search university web pages

*Each department has its own culture*
Research Faculty Mentors

Check out expertise and interests

Find contact info

Explore Recent Work and Funding
Zhao's lab seeks to address the challenges associated with engineering completely biological tissues for regenerative medicine applications. We are developing innovative cell therapies using stem cell sheets to create 3D scaffold-free tissue constructs with the structural similarity, necessary mechanical characteristics, and sufficient immuno-compatibility to facilitate functional in vivo integration. We are also trying to recreate biomimetic microenvironment for 3D tissue development by precisely manipulating biomaterials, oxygen tension, and hydrodynamic culture conditions. The underlying mechanisms that regulate the tissue development are under ongoing investigation by the experimental replication of in vivo cell-cell and cell-environment interactions.
Other Good Resources

- Google Scholar: scholar.google.com
- Research Gate: researchgate.net
  - Like LinkedIn for research
  - Free, but have to sign up
Prepare Your Resume (CV)

- **Education**
  - Relevant Coursework
- **Experience**
  - Research
  - Work
- **Activities**
  - Leadership
  - Service
- **Honors and Awards**
- **Specialized Skills**

1-2 Pages in Length
Contact Potential Mentors

- Formal salutation
- Your name and major/department affiliation
- Purpose for contact (e.g. research position)
- Major research interests and enthusiasm for gaining research experience
- How do your research interests relate to the mentor’s research (e.g. why this specific mentor?)
- Your contact information
- Attach your updated CV
The Interview

- How will research experience be structured?
  - Who will supervise and/or direct your research efforts
  - How often will you meet to discuss your work
  - What precisely will you be responsible for doing
  - What types of lab safety training will you need
- Will you be an intellectual participant and not just a technical assistant?
- Does mentor make you feel comfortable and accepted?

Understand that you may find one or more faculty who are unable to accept you into their research program at any given time
Accepting a Position

- Agree on a pay rate or that the position is voluntary
- Agree on a work schedule
  - Faculty usually appreciate students who can devote larger blocks of time (3+ hours) at one time
  - Understand if travel or weekend work is necessary and/or acceptable
- Be prepared to complete any safety training quickly and responsibly
- Find out what you will need to bring to work on the first day
  - Every day, be prepared for the necessity to take notes (bring a notebook and pencil)

*If you need to decline a position do it in a timely and courteous manner*
Research Internship Programs

- Student and mentor work on project description
- Letter of support from mentor or recommendation letters
- 3 Michigan Tech Programs
- Numerous other off-campus programs
Michigan Space Grant Consortium Fellowships

- Open to all undergraduate students on campus
- Proposal must have a NASA-related focus
- $2500 fellowship for summer or academic year internship (May 2018-April 2019)
- Opportunity to present at MSGC Conference in October
- Applications due early November
Summer Undergraduate Research Fellowship
- Open to all undergraduate students on campus!!
- 10-week summer internship with $4000 stipend
- Professional development opportunities
- Required to present findings at public forum
- Applications due late January
- 2 application workshops – early Dec & early Jan
Undergraduate Research Internship Program

- Students new to research!!
- Health-related fields
- $1600 towards an hourly job with a faculty member on campus from September through March
- Professional development and presentation at Undergraduate Research Symposium in March
- Applications due in March
Additional Research Programs and Opportunities

There are numerous ways undergraduate students at Michigan Tech can get involved with groundbreaking research. There are paid, volunteer, and for-credit opportunities across all colleges and majors—all of which can count toward your Honors requirements. The following external opportunities have varying open application periods. We recommend you check the program website provided for specific deadlines.

Research Experience for Undergraduates (REU)

Research Experience for Undergraduates (REU) is a program dedicated to equipping undergraduate students with the appropriate funding and mentorship to pursue research of topics from various fields, mainly focusing on science, technology, engineering and math (STEM).

Barry Goldwater Scholarship

The Barry Goldwater Scholarship is for sophomores and juniors who intend to pursue research careers in the natural sciences, mathematics and engineering.
Join the Pavlis Honors College

Need at least 4 semesters left on campus to apply

Deadline for consideration for Spring 2018: October 21st

Other Pathways include Innovation, Global Leadership, Community Engagement, Enterprise and Custom
Thank you!

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