Office of Undergraduate Research and the Bachelor of Science in Pharmaceutical Sciences Program present

Summer Research Funding
The college offers a wide variety of research opportunities for undergraduates.
Find a mentor by reviewing the faculty member’s current research listed here: http://www.utolledo.edu/pharmacy/Research/

RESEARCH AND FACULTY

The College of Pharmacy and Pharmaceutical Sciences has a stellar faculty that brings the latest research and technology to the classroom. They are committed to providing excellent student-centered instruction, along with the professional guidance that ensures our students' success. Faculty conduct research in a number of areas that impact patient care, including diabetes, kidney disease, cancer, Alzheimer's disease, cardiovascular disease and neurodegenerative disorders. Our faculty members are recognized authorities in their areas of specialization and conduct groundbreaking research that contributes to the development of new treatments and practices.

UNDERGRADUATE RESEARCH OPPORTUNITIES

The College of Pharmacy and Pharmaceutical Sciences encourages undergraduate students to seek research opportunities with the College faculty members.

FACULTY, LISTED BY RESEARCH INTEREST
CPPS UNDERGRADUATE RESEARCH OPPORTUNITIES

- Department of Medicinal and Biological Chemistry
- Department of Pharmacology
- Department of Pharmacy Practice
- Center for Drug Design and Development (CD3)

DEPARTMENT OF MEDICINAL AND BIOLOGICAL CHEMISTRY

RESEARCH COURSES OFFERED BY THE DEPARTMENT OF MEDICINAL AND BIOLOGICAL CHEMISTRY BY ARRANGEMENT WITH THE INSTRUCTOR:

MBC 4780  Practicum in Medicinal Chemistry
MBC 4900  Honors Seminar
MBC 4910  Problems in Biomedical Chemistry (usually taken for independent study or literature study outside of laboratory work)
MBC 4960  Honors Thesis
MBC 4950  Research in Medicinal Chemistry

For CPPS students who want to meet a faculty member on the Health Science Campus, please contact the BSPS Internship Office at 419.383.1948 or BSPSOOffice@utoledo.edu for assistance.
Tips for students:

1. Identify a faculty mentor by reviewing their research, listed on the college’s website
2. Schedule an appointment to visit their lab to discuss current and future research projects
3. Begin drafting your research proposal
4. Attend research proposal workshops in January
5. Meet with Undergraduate Research faculty/staff to answer remaining questions
6. Submit your proposal BEFORE the deadline!
Undergraduate Research Opportunities at UT
The University of Toledo
Office of Undergraduate Research
OUR-UT

Thomas Kvale (Director)
Office: SH0119 or MH4023
Phone: 419.530.2983 or 419.530.2980
Email: thomas.kvale@utoledo.edu

Larry Connin (Associate Director)
Office: MK1010-D
Phone: 419.530.6037
Email: larry.connin@utoledo.edu

Office of Undergraduate Research

Nykolas Mckissic (Graduate Assistant)
Office: Scott Hall, SH0119
Phone: 419.530.2983
Email: undergraduate.research@utoledo.edu

Website: http://www.utoledo.edu/honors/undergradresearch
“... It was a wonderful experience, I feel very accomplished and proud of the work I have done. It was a great learning experience – the perfect way to end my first year of college! I hope that I have the opportunity to do this again.”

First year research student, Summer 2008

“Best: amazing opportunity to work on scientific research – valuable laboratory experience – very informative.

Worst: very long hours (no overtime compensation)”

First year research student, Summer 2008
First Year Student Research Opportunities at UT

Programs administered through the UT Office of Undergraduate Research:

**FYSRE** – First Year Summer Research Experience
**WSRP** – Work-Study Research Program

**Faculty Research** -- individual faculty research
The Office of Undergraduate Research (OUR-UT)

Focal Point for Undergraduate Research at UT

- Past, present, future projects/opportunities
- Coordinate with existing research efforts in the various departments and colleges
- Coordinate with the Honors Program and Office of Research
- Coordinate with Student Government for the promotion of undergraduate research
**Office of Undergraduate Research**

http://www.utoledo.edu/honors/undergradresearch/

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### UNDERGRADUATE RESEARCH

**WELCOME**
- Undergrad Research Home
- OUR Advisory Committee
- Honors College
- ROSEF
- OURUT Research Resources
- Ethical Conduct of Research
- OURUT Reports
- Directors Statement
- News & Announcements
- Calendar
- Presentations & Conferences
- Why Research & FAQ
- Undergrad Research Fund
- Sponsors
- National Research Agencies
- WebCURe

**RELATED UT LINKS:**
- Center for Experiential Learning and Career Development
- Study Abroad
- UT Environ. Health & Safety

**CONTACT US**
- Main Campus
- MacKinnon Hall
- MK1010-A

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## OFFICE OF UNDERGRADUATE RESEARCH (OUR-UT)

### IMPORTANT DATES/ANNOUNCEMENTS:

OUR-UT office has moved to Scott Hall, SH0119.
For the time being, follow signs for Jesup Scott
Honors College Success Coaches.
Larry Connin’s office is still in MacKinnon Hall, MK1010-D.
Student Research Handbook has been updated. Please
click on the links below to download.

Scholars’ Celebration: Undergraduate Research Showcase
will be Dec. 01–11. Click on link below for details.
AYRP, STARS, WSRP proposals were due Sept. 18, 2015
but we are still accepting proposals.

**OUR-UT Standard Research Proposal template**

**OUR-UT Standard poster template**

**Proposal Checklist and Proposal Scoring Guidelines**

Please click on the links below to navigate to the desired subject material.

**Undergraduate Research Event Calendar**

Event calendar containing research talks, deadlines, and other items of interest
to undergraduate research.

**Undergraduate Research Programs and Resources**

The main page for the various research programs funded through the Office of
Undergraduate Research.

**Student Research Handbook**

The Student Research Handbook contains a wealth of information about
Programs sponsored through the Office of Undergraduate Research (OUR-UT)

Academic Year Research Program: **AYRP**
First Year Summer Research Experience: **FYSRE**
Travel Research Grant Program
Undergraduate Summer Research & Creative Activity Program: **USRCAP**
UT-City of Toledo Internship Program: **TTKTG**
Volunteer Research Program
Work-Study Research Program: **WSRP**

**All** of the above programs require proposals, written by students (and edited by proposed faculty mentors).
First Year Summer Research Experience: FYSRE

The First Year Summer Research Experience Program (FYSRE) supports research involvement by students in faculty members' research activities in the summer of their first year in college. This competitive program is open to all UT first-year undergraduates in all areas of research and/or creative activity.

Details:
• Student Population: UT first-year students
• Period: Summer
• Compensation options: Acad. Cred., Stipend, Work-Study
• Assistance: supplies/travel budget
• Proposal: standard OUR-UT proposal format
• Proposal deadline: near the end of February
• Awards will be announced by the end of March
Undergraduate Research at UT

Programs sponsored through the Office of Undergraduate Research

Students initiate discussions with faculty about possible research projects, then write & submit their proposal to OUR-UT for consideration.

The philosophy is that the proposal then becomes a pedagogical tool to aid the student.

Unless otherwise mentioned: All programs are open to all UT undergraduates in all areas of research and/or creative activity at UT.
Proposal Writing Techniques

The best way to become involved in research is for you, the student, to be actively involved from the very beginnings of research -- the proposal!

The way a proposal is crafted can make the difference between receiving funding and being turned down for funding.

Please see the OUR-UT website for specific instructions and hints on how to write a well-written proposal.
Parts of a OUR-UT Research Proposal

Complete Proposal:

- **Abstract** → usually ½ page
- **Introduction**
- **Main Body** → limited to 3 to 7 pages
- **Summary/Conclusion**
- **References** → usually ½ to 1 page
- **Timeline** → usually 1 page
- **Budget & Justification** → usually 1 to 1½ pages
- **Academic Statement** → usually 1 to 1½ pages
- **Letter of Support** → usually 1 to 1½ pages
Proposal Writing Techniques

Remember that research by its very nature seeks to go beyond the individual and be universal.

The clearer you can express the following three points, the better chances your project will be ranked high:

• the **Intellectual Merit** of the project;
  o (Why should I do it?)

• the **Broader Community Impact**.
  o (Why should anyone care?)

• the **Impact on Your Academic Program**.
  o (How will this help me grow in the field?)
You are the primary author of the proposal. Your faculty mentor should guide you in the preparation of your proposal and edit the final version.

Your proposal should be as professional as you can make it at the level that you understand the research material.

A proposal that gives the impression that it has been “cut-and-pasted” from your faculty mentor’s research papers generally is rated lower than one that gives the impression that you wrote it.
Proposal Writing Techniques

Meet the deadlines!!!!!
If your proposal arrives late to OUR-UT office, it may or may not be accepted.

Deadlines are called DEAD lines for a reason!!

Internet malfunction is not an acceptable excuse for a late proposal.

FYSRE and USRCAP Proposal Deadline: Late February
Proposal Writing Techniques

**Proposal Submission Procedure**

Before-NOW Contact faculty to decide on a research project.

Late Jan. Attend the Proposal Writing Workshops

February Write and edit by both you and your faculty mentor to produce a finished proposal.

Late Feb. Deadline for submitting your **complete** proposal electronically to OUR-UT.

Late Feb. Deadline for your faculty mentor to submit her/his Letter of Support to OUR-UT.
Office of Undergraduate Research

We are here to help Come by and see us if you have any questions or need help.

Thomas Kvale (Director)  Larry Connin (Associate Director)
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