From the school’s inception, student research has been encouraged at A.T. Still University (ATSU) as a vital part of the learning process whether that means dissecting and preserving the human nervous system as a personal scientific endeavor or whether that means completing a research thesis project as a requirement for graduation.

The IRL is a vital resource for both students and faculty at ASHS. For instance, faculty have a collegial, multidisciplinary space for performing individual and collaborative research projects, and students benefit from observing the faculty researchers in action. Not only do recent faculty research publications and posters line the walls of the IRL, but students are also able to see a variety of ASHS faculty performing research with other faculty members and with other students.

“The only true limitation to completing a research project here is your imagination.”

Dr. James Roush

Complete Human Nervous System Dissected and Preserved by Student Doctors, Michael Schalck and Leroy Ramsdell, in 1925.

Performing an Assisted Treadmill Physical Therapy Experiment.
Additionally, the IRL is an important resource for students because they can plan, organize, and conduct their own research projects in the lab, knowing that faculty help is nearby. The strong research examples set by the ASHS faculty have enabled ASHS student researchers to begin establishing their own research credentials through peer-reviewed publications and external grant funding.

MASTER OF SCIENCE IN BIOMEDICAL SCIENCES

As another example of ATSU’s renewed commitment to student research, the Master of Science in Biomedical Sciences degree, available through the Kirksville College of Osteopathic Medicine (KCOM), was established in 2001. In the late 1990s, it was recognized that students who were not accepted at KCOM were enrolling in programs at other universities designed to improve their academic credentials with the eventual goal of admission to a medical school.

“To retain these potential, future osteopathic physicians, the Master’s program was conceived as a way to provide these students with an opportunity to improve their academic and critical thinking abilities while gaining research experience and a work ethic that would better prepare them for the rigors of medical school.

“Since most students in this program go on to the D.O. program, I think this program is turning out students who will have a better understanding of the scientific process and the ability to apply that knowledge from the bench top to the bedside. In the future, I think that the M.S. program will keep producing students who will represent this school well in every aspect of medicine and research.”

Carl Giacchi, Graduate of the Biomedical Sciences Program and Current D.O. Student

With the development of this research-based program, the benefit to KCOM faculty has been inestimable. Dr. William Sexton in Physiology and Chair of the Master’s program says that having “graduate students in the lab injects a new enthusiasm and increases lab productivity.”

“It is natural to look for the source of the science that is taught in medical school so that the knowledge gained comes with an appreciation for the methods by which it was obtained.”

Jason Meler, Dual-degree Student in the Biomedical Sciences and D.O. Programs

Dr. Melissa Stuart Demonstrating How to Prepare a Polyacrylamide Gel.
Interactions between faculty and student researchers stimulate research activity with the result that more publications are being produced, many with student co-authors. The Master’s students are also presenting results of their research at national and regional meetings, gaining further invaluable experience. Many of the students in this program are active participants in the student government and other campus activities, and have successfully matriculated into KCOM’s D.O. program. With their strong research background, perhaps the Biomedical Sciences students of today will be the osteopathic medical researchers of tomorrow.

“The future of student research

As a result of new programs designed to foster student research at ATSU, the research reputation of the University is getting stronger through its active faculty and student researchers. Even in areas which have not, historically, seen much student involvement in research, efforts are underway to increase student participation. New mentorship and fellowship programs are under development to get more students involved in research. In 2007, these efforts to improve student research will continue with the formation of a new doctoral program in osteopathic clinical research.

“Working with a faculty member on research affords a great opportunity for students to be a part of a research project without having the pressure of developing it from the ground up. I find it very rewarding to work with students on research projects.”

Dr. Pamela Bosch

While recently discussing the importance of active student participation in the educational process, Patricia Sexton in Biochemistry remarked, “learning-centered education means that the student learns from me and I also learn from them.” As recent students and graduates of ATSU have discovered, this exchange of knowledge and skills can occur in the laboratory as well as in the classroom.