At the Advanced Medical Technologies Laboratory (AMTL) we strive to improve the quality of life for patients. Our research focuses on fundamental understanding of key questions to enable intelligent medical devices and surgical robotics which are, in turn, setting a foundation for patient-specific medical care and ultimately leading toward an operating room of the future. These efforts include design of novel surgical tools, devices, and robotics; characterization and modeling of how these tools, devices, and robots interact with the patient; and optimization based on these models.

Current and previous students working with us in the AMTL have included NSF Graduate Research Fellows, National Defense Science and Engineering Graduate (NDSEG) Research Fellows, Fulbright Scholars, Whitaker International Fellows, NSF Graduate Research Opportunities Worldwide (GROW) and NSF GK-12 Fellows. Our student researchers have received numerous departmental, college and university fellowships, travel grants and awards. Graduates from the AMTL are working as tenure-track faculty and research fellows at other academic institutions, design engineers at start-up companies, and research & development engineers and scientists at major medical device companies.

For more information visit amtl.colorado.edu or contact Dr. Mark Rentschler, Principal Investigator of the Advanced Medical Technologies Laboratory at mark.rentschler@colorado.edu.