PhD Position (Center for Intelligent Optics,

Department of Biomedical Engineering)

Title	Ph.D. student position: Surgical applications of lasers (SAL)
Degree of employment / date of entry	100%, starting Sep 2024 (negotiable)
Introduction	The Center for Intelligent Optics (CIO) is a part of the Department of Biomedical Engineering, University of Basel. The research interests include developing intelligent optical technologies for medical applications. The successful PhD candidate will be part of an interdisciplinary team of biomedical engineers, mathematicians, mechatronics engineers, computer scientists, physicists, and medical doctors. He or she will be able to contribute to developing a disruptive technology in robotic surgery.
Topic Description	In this project, the Ph.D. candidate will develop a laser probe that can be used for tissue ablation.
Qualifications	• Experience with high power lasers, • Ability to assemble optical, electrical, and mechanical instruments, • Hands-on laboratory experience with lasers and optics • University master's degree in biomedical engineering, Physics, Electrical Engineering, Optical Engineering, or closely related fields, • Excellent Master's and Bachelor's grades, • Experience with optical design techniques (e.g Zemax), • Programming skills (e.g. MATLAB, Python), • Ability to work in a highly international team, • High motivation to work with lasers and their biomedical applications, • Experience in working with micro-optical systems is a plus, • Applicants are expected to have excellent language skills in English.
What we offer	• Opportunity to work on a highly innovative project within a highly interdisciplinary environment (up to 50 researchers) • Enrollment in an established 3-year PhD program (with 1-year possible extension) in Biomedical Engineering (in English) • The salary is very competitive by international standards and will be according to the guidelines of the University of Basel. Five weeks of holidays per year, 42 working hours per week • Basel is an international city on the Rhine River northwest of Switzerland. Located where the Swiss, French and German borders meet.
Contact	Applicants are requested to submit their documentation electronically as a "**single PDF file named with the applicant's name**" by email with the subject „**PhD Student Application: Position SAL**". This document should include your letter of motivation, CV, publication list and other academic information, TOEFL and/or IELTS scores if available as well as the full address/phone number/email of up to three references. Please send your application documents before **20 July 2024.** For applications and questions please contact Dr. Arsham Hamidi arsham.hamidi@unibas.ch.