

## Postdoc Position (Center for Intelligent Optics, Department of Biomedical Engineering)

<b>Title</b>	Postdoctoral researcher position in micro-optics (PMO)
<b>Degree of employment / date of entry</b>	100%, starting September 2024 (negotiable)
<b>Introduction</b>	<p>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 like imaging, diagnosis, and minimally-invasive intervention.</p> <p>The successful 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.</p>
<b>Topic Description</b>	In this project, the researcher will contribute to the design and development of micro-optics and optoelectronics for endoscope probes, aimed at delivering various laser technologies for ablation, imaging, and sensing. The successful candidate will also participate in project management and supervise PhD students.
<b>Qualifications</b>	<p><b>Major Requirements:</b></p> <ul style="list-style-type: none"> <li>• <b>University PhD degree in Physics, Electrical Engineering, Optical Engineering, or closely related fields,</b></li> <li>• <b>Solid experience in optical design and simulation (e.g. Zemax, Code V), and mechanical design and simulation (SolidWorks, AutoCAD),</b></li> <li>• <b>Expertise in design and implementing micro-optical assemblies,</b></li> <li>• <b>Solid experience in precision assembly</b></li> <li>• <b>In-depth knowledge of fiber optics</b></li> <li>• <b>Experience in conducting thermal analysis (COMSOL),</b></li> <li>• <b>High-level project management skills,</b></li> <li>• <b>Ability to work in a highly international team,</b></li> </ul> <p><b>Desired Requirements:</b></p> <ul style="list-style-type: none"> <li>• Experience in biomedical applications of laser,</li> <li>• Experience with supervising PhD students,</li> <li>• Knowledge of materials and production processes,</li> <li>• Experience with high power or high energy laser systems,</li> <li>• Knowledge of fiber optics engineering (splicing, fusion, and striping)</li> <li>• Familiarity with programming (e.g. C++, Python, LabView),</li> </ul>
<b>What we offer</b>	<ul style="list-style-type: none"> <li>• Opportunity to work on highly innovative projects within a highly interdisciplinary environment (up to 50 researchers)</li> <li>• 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</li> <li>• Basel is an international city on the Rhine River northwest of Switzerland. Located where the Swiss, French and German borders meet.</li> </ul>
<b>Contact</b>	<p>Applicants are requested to submit their documentation electronically as a “<b>single PDF file named with the applicant’s name</b>” by email with the subject „<b>Position PMO Application</b> “. This document should include your letter of motivation, CV (with personal details), 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 <b>10 July 2024</b>.</p> <p>For applications and questions please contact Dr. Arsham Hamidi <a href="mailto:arsham.hamidi@unibas.ch">arsham.hamidi@unibas.ch</a>.</p>