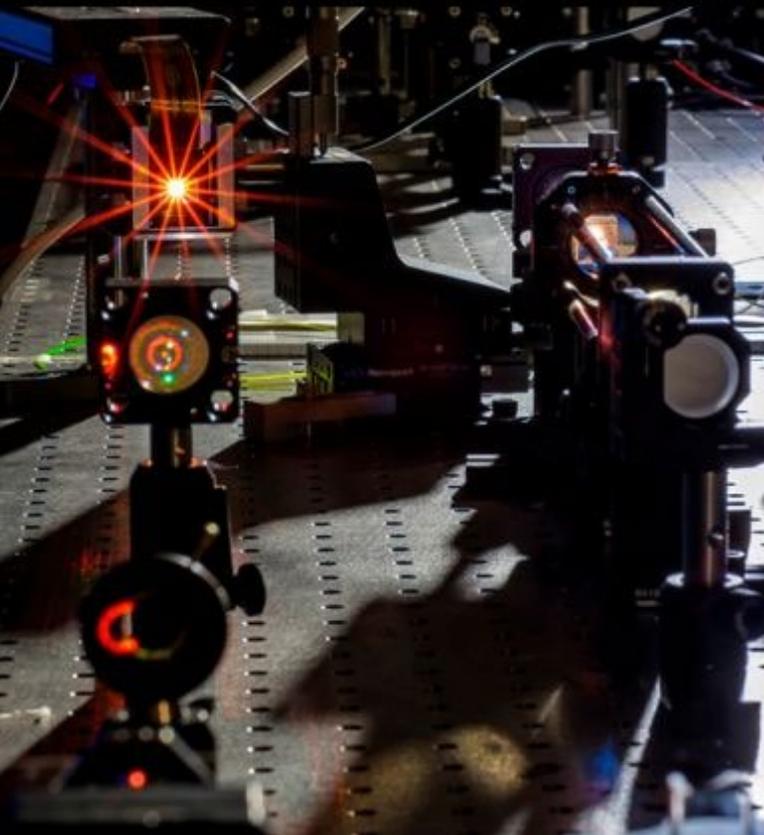


*Are you ready for a PhD?*

**We are hiring!**

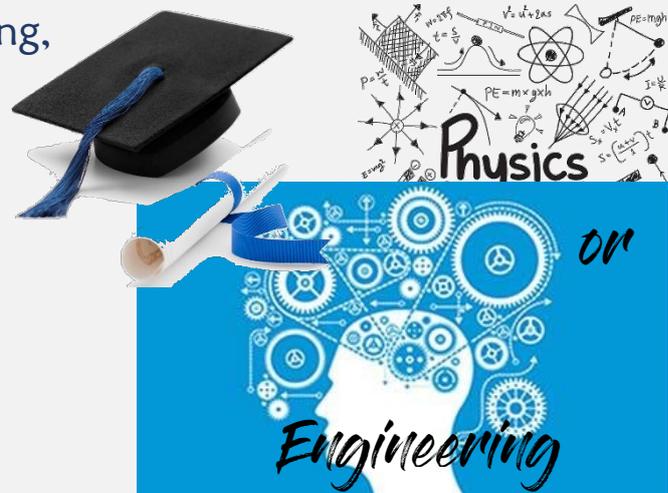


APPLY at <https://euraxess.ec.europa.eu/jobs/655905>

The PhD candidate will aid the design and development of a Full-field Fourier-domain Optical Coherence Tomography (OCT) platform for live small animal retinal imaging, help construct and test a novel surgical ophthalmic microscope-integrated OCT system and design and test intraocular OCT-compatible surgical tools. Apply by 31<sup>st</sup> July 2021.

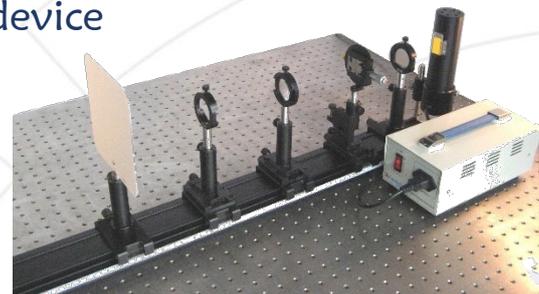
## Successful candidate must have:

1. A Master's degree in engineering, physics, or related fields;

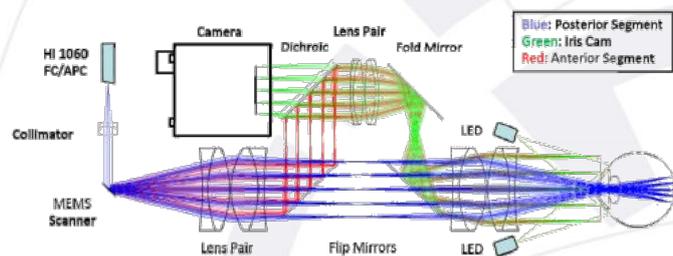


2. Background knowledge and hands-on experience in at least two of the following:

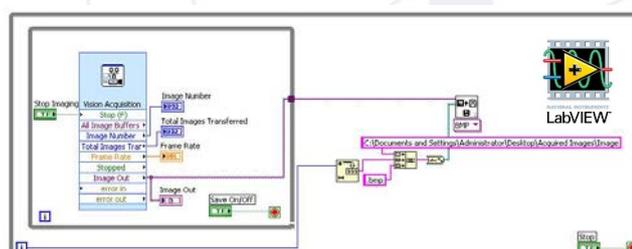
- a. Practical optical system and device construction and testing



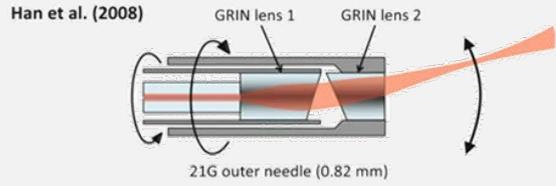
- b. Optical and optomechanical system design (e.g. Zemax, Solidworks)



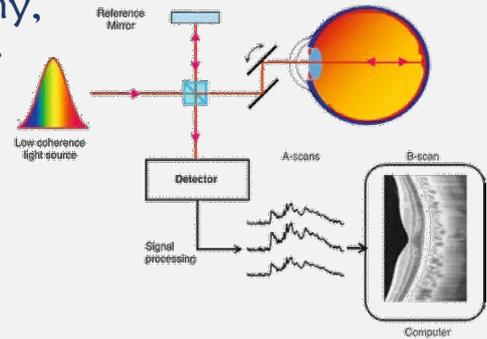
- c. Image acquisition, processing and visualization (e.g. with LabView, MATLAB, Python)



d. Micro-optics fabrication and probes



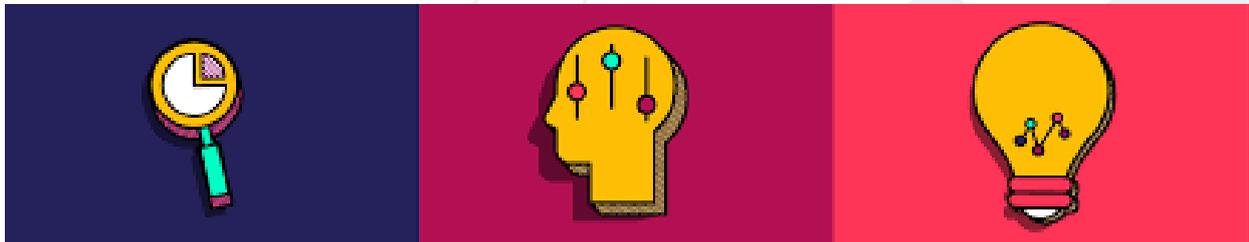
e. Optical coherence tomography, interferometry/holography, laser beam optics



3. Very good written and oral communication skills in English



4. High motivation, analytical skills, and independent thinking



5. Collaborative attitude, good time management



## JOB OFFER

Position in the project:	<b>PhD student</b>
Scientific discipline:	Engineering and Technology: biophotonics
Job type (employment contract/stipend):	Employment contract
Number of job offers:	1
Remuneration amount/month:	<b>6 600 PLN ~ 1 500 EUR gross/month</b>
Position starts on:	<b>15<sup>th</sup> August 2021</b> (and onwards, depending on applicant's availability)
Maximum period of contract/stipend agreement:	<b>31<sup>st</sup> December 2023</b> (with the possibility of extension, provided that adequate resources are available)
Institution:	International Centre for Translational Eye Research (Institute of Physical Chemistry, Polish Academy of Sciences)
Project leader:	Dr Andrea Curatolo
Project title:	<p><b>International Centre for Translational Eye Research (MAB/2019/12)</b></p> <p><b>The project is carried out within the Image-guided Devices for Ophthalmic Care (IDoc) group of the International Centre for Translational Eye Research (ICTER). The Centre is funded within the International Research Agendas Programme of the Foundation for Polish Science.</b></p>
Project description:	<p>The International Centre for Translational Eye Research (ICTER) is a multi-investigator centre for eye research related to imaging and biochemical techniques to support advances in vision science and treatment and human blinding diseases.</p> <p>Within ICTER, the IDoc Laboratory, led by Dr Curatolo, seeks to research novel techniques and develop diagnostic imaging and surgical guidance instrumentation to address unanswered questions in vision science and unmet needs in ophthalmology and optometry. For more information on the projects, please mail Dr Curatolo at <a href="mailto:andrea.curatolo@ichf.edu.pl">andrea.curatolo@ichf.edu.pl</a></p> <p><b>The IDoc Laboratory seeks one PhD candidate with experience in optical system design, construction, and testing.</b> In addition, practical skills in software prototyping and data/image acquisition using LabView and processing and analysis using MATLAB or Python are a definite plus. Prior experience in optical coherence tomography (OCT) is a plus.</p> <p><b>The PhD candidates will aid the design and development of a Full-field Fourier-domain OCT platform for live small animal retinal imaging, help construct and test a novel surgical ophthalmic microscope-integrated OCT system and design and test intraocular OCT-compatible surgical tools.</b></p> <p><b>The PhD candidate will work as part of a multi-disciplinary team</b> of experts in optics, imaging, instrumentation, and mechatronics engineering, under the direct supervision of a senior group member and/or the group leader and collaborators in biochemistry of vision, ophthalmology, and surgery. <b>The PhD candidates are expected to engage in the appropriate range of academic activities</b>, including among others: carrying out research as planned and/or directed, project</p>

reporting, publication in high impact factor science and technology journals, conference attendance, active collaboration, intellectual property protection, and outreach activities, as appropriate.

The program will leverage on outstanding existing resources at the Polish Academy of Sciences and University College London led by the advisory group that include top leaders in European vision research.

Key responsibilities include:

1. Working as a full-time researcher at the International Centre for Translational Eye Research, under the supervision of Dr Curatolo and/or one senior IDoc member
2. Contributing to research and development connected to the IDoc research projects agenda, including:
  - a. Help developing and testing a Full-field Fourier-domain OCT system for live small animal retinal imaging, and
  - b. Testing a novel surgical ophthalmic microscope-integrated OCT system
  - c. Designing and testing intraocular OCT-compatible surgical tools
3. Designing and building optical hardware setups, in a laboratory setting or for deployment in preclinical or clinical settings
4. Acquiring experimental data/images in a laboratory or preclinical/clinical setting
5. Develop methods to process and analyse the collected data
6. Collaborating closely with other team members
7. Conducting high-quality, high-impact research in biophotonics and biomedical optical engineering, publishing results in peer-reviewed journals and presenting the results at conferences and elsewhere, as appropriate
8. Presenting research activities and results in reports, presentations, research publications, and to other team, laboratory, centre or institute members, visitors, peers and potential sponsors
9. Assisting in the supervision of master's and undergraduate students, if required
10. Participating in other research projects undertaken within the lab as appropriate and as agreed
11. Performing other duties as directed

	<ol style="list-style-type: none"> <li>1. Holds a Master's in engineering, physics, or related fields;</li> <li>2. Background knowledge and documented hands-on experience in at least two of the following: <ol style="list-style-type: none"> <li>a. Practical optical system and device construction and testing</li> <li>b. Optical and optomechanical system design (e.g. Zemax, Solidworks)</li> <li>c. Image acquisition, processing and visualization (e.g. with LabView, MATLAB, Python)</li> <li>d. Micro-optics fabrication and probes</li> <li>e. OCT, interferometry/holography, Laser beam optics</li> </ol> </li> <li>3. Very good written and oral communication skills in English</li> <li>4. High motivation, analytical skills, and independent thinking</li> <li>5. Collaborative attitude, good time management</li> </ol>
Key assessment criteria:	<ol style="list-style-type: none"> <li>1. Documented professional experience fitting the profile requirements</li> <li>2. Presented opinions via reference letters</li> <li>3. Creativity measured by the quality and number of scientific publications in which the candidate is an author and patent applications/patents, if applicable</li> <li>4. Additional relevant courses or certificates</li> <li>5. Mobility in his/her scientific career (geographical mobility, internships and work in industry)</li> </ol>
Required documents:	<ol style="list-style-type: none"> <li>1. Self-test: Please read these two publications (<a href="#">1</a>, <a href="#">2</a>) and ask yourself: do I understand what those systems are trying to achieve? Would I be able to replicate and adjust subcomponents design in either optical ray tracing or 3D CAD programs? Would I feel ready to mount, align and test those systems or parts of them? Could I help program, acquire and process data with either system? If the answer is yes, then proceed to the next step.</li> <li>2. Curriculum vitae</li> <li>3. Cover/motivation letter</li> <li>4. List and brief description of the research projects where the candidate played an active role (it should contain the major deliverable of the project implementation and a description of the candidate's role and active contribution to it);</li> <li>5. Names and emails of 2 work references</li> <li>6. Scanned copy of the candidate's Master's degree certificate (with final grade, if applicable) and current PhD enrolment status documents (if applicable)</li> <li>7. List of publications, if applicable</li> </ol>
We offer:	<ol style="list-style-type: none"> <li>1. Full-time employment contract with competitive salary</li> <li>2. Opportunity to work in an innovative scientific environment</li> <li>3. Professional training with excellent international researchers</li> <li>4. Access to well-staffed core facilities</li> <li>5. Opportunity to interact with other PhD students and peers</li> </ol>
Please submit the required documents to:	<p><a href="mailto:ictcr_jobs@ichf.edu.pl">ictcr_jobs@ichf.edu.pl</a></p> <p>Kindly specify in the application topic: MCBO 41/2021</p>
Application deadline:	<p><b>31<sup>st</sup> July 2020</b></p>

Successful candidates fulfilling the main eligibility criteria and qualifications will be invited for an interview Competition results shall be announced by mid-August 2021.

The International Centre for Translational Eye Research (Institute of Physical Chemistry PAS) is committed to employment equality (esp. European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers) and welcomes applications from all qualified candidates fulfilling the requirements specified in this announcement.

For more details about the position please visit (website/webpage address):

[www.icter.pl](http://www.icter.pl) or contact Andrea Curatolo ([acuratolo@ichf.edu.pl](mailto:acuratolo@ichf.edu.pl))

Euraxess job/stipend offer (in case of PhD, postdoc, leader and young leader positions):

<https://euraxess.ec.europa.eu/jobs/655905>

The controller of your personal data is the International Centre for Translational Eye Research with its registered office in Warsaw, NIP: 1080023333 (the "ICTER"). ICTER will process your data for the purpose of carrying out scientific and research activities, providing services and contact with ICTER, on the basis of a contract (in connection with the performance of the contract or in order to take action on your request before the contract is concluded – Article 6, paragraph 1, letter b) of GDPR), the legitimate interest of ICTER (Article 6, paragraph 1, letter f) of the GDPR) and legal provisions (Article 6, paragraph 1, letter c) of the GDPR) - depending on the circumstances.

You have the right to: request access to your data, receive a copy of it; rectify (correct) it; delete it; limit its processing; transfer it; lodge a complaint to the supervisory body; withdraw your consent for processing at any time (withdrawal of consent does not affect the lawfulness of the processing carried out prior to its withdrawal) or to lodge an objection to data processing. More information is available on the Institute's website.

[http://www.icter.pl/blob/ICTER\\_GICR.pdf](http://www.icter.pl/blob/ICTER_GICR.pdf)