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## Post-doctoral position in Horizon Europe project fastMOT - Fast gated superconducting nanowire camera for multi-functional optical tomography

ICFO is offering a postdoctoral position to a well-qualified, highly motivated and dynamic young scientist who wishes to enhance his/her scientific career in a friendly and stimulating environment.

**ICFO Medical Optics led by ICREA Prof. Turgut Durduran** is a partner in "Fast gated superconducting nanowire camera for multi-functional optical tomograph" (fastMOT) project. fastMOT is a Horizon Europe project in collaboration of academia and industry around Europe to scale time-resolved near-infrared spectroscopy (NIRS) And speckle contrast optical spectroscopy (SCOS) to more than 10,000 pixels to achieve a 100x improvement of SNR compared to using existing light sensors. With our proposed multifunctional optical tomograph we will be able to image deep organ and optical structures and monitor functions including oxygenation, haemodynamics, perfusion and metabolism.

The group will participate in all main tasks of the project and the fellow will be responsible for:

- Designing the specifications for time-resolved speckle contrast optical tomography (SCOT) equipment.
- Testing on tissue simulating phantoms.
- Collaboration with industry and academia.
- In vivo testing on healthy subjects for functional activation studies.

### Eligibility and Conditions

Post-doctoral candidates must hold, at the time of contract initiation, an internationally-recognized Ph.D.-equivalent degree (or evidence of its completion in the nearest future) in Physics, Engineering or Biomedical Sciences.

The candidates should have demonstrated experience in opto-electronics, physics of photon transport in tissues, near-infrared spectroscopy (NIRS), diffuse correlation spectroscopy (DCS) and related fields.

ICFO is an equal opportunity employer. Candidates are selected exclusively on merit and potential on the basis of submitted application material. No restrictions related to disabilities, citizenship or gender apply to ICFO positions. ICFO abides by the principles of openness, efficiency, transparency, supportiveness, and international comparability as stated in the European Charter for Researchers and the European Code of Conduct for the Recruitment of Researchers.

Salary is offered according to the institutional salary scales.

The contract is offered for a period of 3 years.

Additionally, a family allowance is also available on request and after corresponding approval for people with family charges in the terms described in the corresponding policy.

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## Application procedure

The formal application should be submitted online via <https://jobs.icfo.eu/?detail=725>

Suitable Post-doctoral candidates are requested to submit:

- Presentation letter with a declaration of interest.
- Curriculum Vitae, including contact details.
- The contact e-mail of two potential referees.

**Note:** Ph.D. candidates should follow ICFO's general Ph.D. admission process as described at <https://jobs.icfo.eu/?detail=650>. Please also contact [Turgut.Durduran@icfo.eu](mailto:Turgut.Durduran@icfo.eu).

Candidates will be assessed as they apply and the call will remain open until the suitable candidate is identified.

Candidates may contact [jobs@icfo.eu](mailto:jobs@icfo.eu) for formal enquiries regarding the application, as well as address scientific enquiries to [Turgut.Durduran@icfo.eu](mailto:Turgut.Durduran@icfo.eu).

For update information about the hosting group, please visit <https://www.icfo.eu/research-group/16/medical/home/437>.

For updated information about ICFO, please visit <https://www.icfo.eu>.

## Deadlines

The call will remain open until 04/03/2023.