

Become an ICFO PhD-student

Up to 9 PhD-positions available within the FLIGHT fellowship program (MSCA-COFUND action)

DESCRIPTION:

ICFO offers **PhD-fellowship positions** to well-qualified graduate students, who wish to **obtain a doctoral degree in any of the research topics covered at ICFO.**

The positions are offered in the scope of the **FLIGHT** Program, a MCSA-COFUND doctoral program explicitly **focused on intersectoral research training in collaboration with Industrial or Clinical Partners.**

Our PhD Fellowship Program welcomes applications from **individuals with a degree in a field of mathematics, science, engineering or medical sciences related to the ICFO research activities.**

Our PhD-program brings together *top-level training and teaching for young scientists*, benefiting from the extensive course offerings of local universities and focused instruction by ICFO professors, *in a stimulating, international and interdisciplinary environment*. PhD-students have the opportunity to take advantage of our *network of excellence*, consisting in partners of national and international research institutes and universities, as well as industrial partners in the field.

Recruited Fellows will have a **choice of 3 PhD tracks:**

- **Clinical** to develop a project in collaboration with one of **Clinical Partners**
- **Industrial** to develop a project in collaboration with one of **Industrial Partners**
- **Enhanced** to develop a project with one of ICFO's **Research Groups**

Fellows in the Industrial and Clinical tracks will be embedded in both organisations, undertaking **secondments of 6-18 months at the Partner during their Fellowship.**

Research projects in the Clinical and Industrial tracks on offer in this call are the following:

Clinical track:

- **CT005: “Transcranial, cot-side neuromonitoring for personalizing pediatric management”** Prof. Dr. Turgut Durduran at ICFO and Dr. Marta Camprubi, Dr. Joan Sanchez and Dr. Carme Fons at Institut de Recerca Sant Joan de Déu.
- **CT006: “Quantitative evaluation of endothelial and microvascular function at the critical care: new technologies shedding light to critical diseases”** Prof. Dr. Turgut Durduran at ICFO and Dr. Jaume Mesquida at Institut d'Investigació i Innovació Parc Taulí.

Industrial track:

- **IT006: “Evolving QRNGs: higher rates from weaker assumptions”.** Prof. Dr. Antonio Acín at ICFO and Dr. Gabriel Senno at Quside.



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- **IT008: “How do crops avoid photodamage under the sun?”**. Prof. Dr. Nicoletta Liguori at ICFO and Dr. Marta da Silva at IRTA.
- **IT009: “FPGA-based hardware acceleration for Post Quantum Cryptography (PQC) and Quantum Key Distribution (QKD) emulation”**. Prof. Dr. Valerio Pruneri at ICFO and Dr. Pau Gomez Kabelka at LuxQuanta.
- **IT010: “Development of Applications and Devices Based on Photonic Integrated Circuits”**. Prof. Dr. Valerio Pruneri at ICFO and Dr. Norbert Kerwien at ZEISS.
- **IT011: “Novel concepts towards reliable and scalable CO2R systems (“ONTARIO”)**. Prof. Dr. F. Pelayo García de Arquer at ICFO and Dr. Christine Gabardo at CERT Systems.

Please, browse our website for details about the [research projects on offer in the Industrial and Clinical tracks](#).

Enhanced track:

Up to 2 fellowships are available to work with **one** of [ICFO’s 26 Research Groups](#). Note that the Selection Committee may recommend the allocation of additional fellowships in case there are additional outstanding candidates.

Research lines in the **Enhanced track** will be offered across all ICFO research groups. Research lines include, but are not limited to theoretical and experimental aspects of:

- Atto-Science, Ultrafast Optics & Nonlinear Optics
- Photovoltaics, Thermal Photonics & Solar Fuels
- Optical Sensing & Optoelectronics
- NanoPhotonics & NanoMechanics
- Ultracold Quantum Gases
- Quantum and Low-Dimensional Materials
- Quantum Communications, Sensing & Simulation
- Quantum Optics & Quantum Information
- Nanophotonics, Condensed Matter Physics & Light-Matter Interactions
- Medical Optics
- Biophysics, Biophotonics & Super-Resolution Imaging

Please, browse our website for details about **ICFO Research Groups and Group Leaders** at <https://www.icfo.eu/research/groups/>. If you are interested in discussing possible research topics, please contact ICFO Group Leaders directly.

HOW TO APPLY:

We look forward to receiving your applications. For applications and further information about eligibility requirements, conditions and selection process please visit:

<https://jobs.icfo.eu/?detail=913>

Deadline for applications: September 26, 2024.

For complete information visit the [FLIGHT fellowship program website](#).



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