

BMPN Annual Meeting: Photonics for Pediatrics

April 17, 2024
09:30 to 15:00
Hospital Sant Joan de Deu

The Barcelona Medical Photonics Network aims to bring cutting-edge photonic technologies to clinical research and ultimately to routine clinical use through the interdisciplinary cooperation of sixteen prominent institutions in Barcelona. It is part of the broader i¿½Li ht for healthi¿½ framework of activities led by ICFO, involving other disciplines and the indu try. On Wednesday 17th of April 2024, the BMPN will host its annual meeting. The topic will be **"Photonics for Pediatrics"**.

Therefore, this year's edition will be co-organized with ICFO's two main medical partners in the field of Pediatrics: **Sant Joan de Deu Barcelona Children's Hospital**, where the event will be held, and **Vall Hebron University Hospital**. Particularly, ICFO and Sant Joan de Deu Research Institute will showcase the progress on their long-standing partnership, the ICFO-SJD Joint Lab, presenting the program's active projects.

After a welcome from the host by **Dr. Joan Comella (Director of Research, Innovation and Learning at Sant Joan de Deu Barcelona Children's Hospital)** the event will be split in two sessions.

The first one, **i¿½Advanced Imaging for Pediatricsi¿½** will showcase different photonic technologies for patient triage, treatment personalization and monitoring of brain function using advanced microscopy tools, optogenetics and photonics-enabled magnetoencephalography.

The second session, **i¿½Non-invasive hemodynamic monitoring for Pediatricsi¿½** will delve into the importance of accessing microcirculation information at the patient's bedside, and particularly for neonates and young infants in need of intracranial pressure monitoring and to investigate neuroprotective strategies during seizures and surgical interventions, also exploring the possibility to combine these innovative solutions with existing monitors and imaging modalities. The event will finish by investigating the early mechanisms of language learning through photonics.

The speakers and audience will include clinicians as well as technology developers and innovation managers, from the Network but also professionals from outside the region and collaborators from Europe.

A coffee break and a standing lunch will be provided to boost interaction and networking, with a small exhibition area displaying related research, innovation and training initiatives. Among other initiatives, TinyBrains device will be showcased: an advanced multimodal neuro-imaging device to understand the mechanisms underlying brain damage in infants suffering from congenital heart defects.

The goal of the event is to bring members of the BMPN network and others together, to strengthen existing collaborations and initiate new ones. This event is in-person and open to everyone interested.

If you would like to attend the meeting, please register before the 12th of April.