

News & events

BabyLux at OSA Biomedical Optics (BIOMED) conference 26 - 30 April 2014, Miami, Florida (USA)

The international Biomedical Optics meeting has brought together leading scientists, engineers, biologists, and physicians engaged in biological and

BabyLux at fNIRS2014 conference 10 - 12 October 2014, Montreal (Canada)

Politecnico di Milano will attend the 3rd fNIRS2014biennial conference in Canada next October. Again, another worldwide event where BabyLux will be presented to a selected audience.

The conference will discuss the recent advances in technology and application.

medical research using optical methods. It has offered an exceptional opportunity to learn the latest results in the field of biomedical optics and has provided the opportunity to discuss biomedical science and applications with the world leaders in this area. HemoPhotonics took part in the conference as an exhibitor

Invited speakers are:

Keynote Lecture: Clare Elwell, University College London; fNIRS Society President's Lecture: Joe Culver, Washington University School of Medicine; Hardware Developments: Alessandro Torricelli, Politecnico di Milano; Multimodal Monitoring: Jens Steinbrink; Data Analysis: Ted Huppert, University of Pittsburgh; and gave voice to the BabyLux project. An important occasion to learn about the project oversea and worldwide. As a matter of fact, this meeting has been rewarded and appreciated over the years because of the high quality of research topics and presentations.

Neurodevelopment: Kevin Pelphrey, Yale University; Neurocognition (adults): Stéphane Perrey, Université Montpellier 1; Neonatal and pediatrics: Fabrice Wallois, Université de Picardie Jules Verne; Clinical: Dang Nguyen, Centre Hospitalier de l'Université de Montréal

See fnirs2014.org for more details.

People



ALESSANDRO TORRICELLI Associate Professor in Experimental Physics Politecnico di Milano

Prof. Torricelli, can you tell us three reasons why the BabyLux project is innovative?

First of all, the project targets an unmet need in neonatal intensive care units that is a portable, safe, and continuous, cot-side monitor of brain perfusion, oxygenation and metabolism that is also accurate, robust and reliable.

Secondly, this is the first time that advanced photonic technologies like TRS and DCS are integrated in a single instrument.

Last but not least, the project takes up complete R&D works and extends already tested prototypes to the level of demonstrator, bridging the gap between research products and commercialization.

Do you think the BabyLux project will find a practical application in order to improve people's quality of life?

The project aims at bettering existing techniques for monitoring brain perfusion in intensive care unit that are often inaccurate and unreliable. Preterm birth is associated with an increased risk of brain damage and neurodevelopmental deficit, therefore the availability of improved solutions will enhance quality of life.

What's the importance of a good network between universities, industries and public administration to support projects such as BabyLux?

The problem we are focusing on requires a multidisciplinary approach. The project gathers leading European research groups in the field of optics, biophotonics, and clinicial researchers as professional end-users and SMEs with the aim of ensuring acceptance and uptake of the proposed solution.





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MARIO MELAZZINI Regional Councilor for Research & Innovation Lombardy Region

Mr Melazzini, do you think research and innovation are a strategic one-two combination for local economic development and production?

I am extremely convinced that research and innovation are the only true way of enhancing competitivity in our area and among local players. Building on this conviction, we have issued an invitation to research and innovation leaders and initiated a pathway that prioritizes the sharing and co-design of policies for rollout. Our starting point is to develop synergies among enterprises, institutions, academia and research. Each stakeholder has incredible potential to be unlocked. We believe that this is the right way to achieve this.

Lombardy is a favorable environment thanks to its universities, research centres and consortia. What are the Lombardy Regional Government's future policies for innovation?

We have set ourselves an ambitious target: before the end of this legislature to double investment in research and innovation to 3% of GDP. We believe that particularly at this time it is vital to plan for the long-term and to promote technological research and development. R&D must never be considered solely as a cost to be cut; on the contrary, it is the first and main investment in our future.

What results do you expect to see in the research field?

Not just as a Councillor but most importantly as a researcher, my hope is that we are able to forge a supply chain and a virtuous cycle that brings together institutions, universities, researchers and enterprises. All stakeholders in this field must act in synergy. We can no longer afford duplication. We must leverage technology platforms to share what is being done as common knowledge. This is our challenge for the near future.

everyone has a role to play...

"Reducing preterm births and improving child survival are ambitious goals. The world has made much progress reducing maternal, newborn and child deaths since the MDGs (Millenium Development Goals, Ed.) were set, but accelerated progress will require even greater collaboration and coordination among national and local governments, donors, UN and other multilaterals, civil society, the business community, health care professionals and researchers, working together to advance investment, implementation, innovation and information-sharing."

(from Born Too Soon: The Global Action Report on Preterm Birth, New York 2012, page 7, <u>www.who.int/pmnch/media/news/2012/preterm_birth_report/en/</u>)



Episode #1 Interview with Alessandro Torricelli www.youtube.com/watch?feature=player_embedded&v=fj2rzRzLcyw



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