Workshop at the Interface between Applied Physics and Medicine

a joint venture between Applied Physics (APHYS) at KTH,
Microbiology, Tumor and Cell Biology (MTC) at KI and
Experimental and Clinical Medicine at the
University of Catanzaro (UMG), Italy

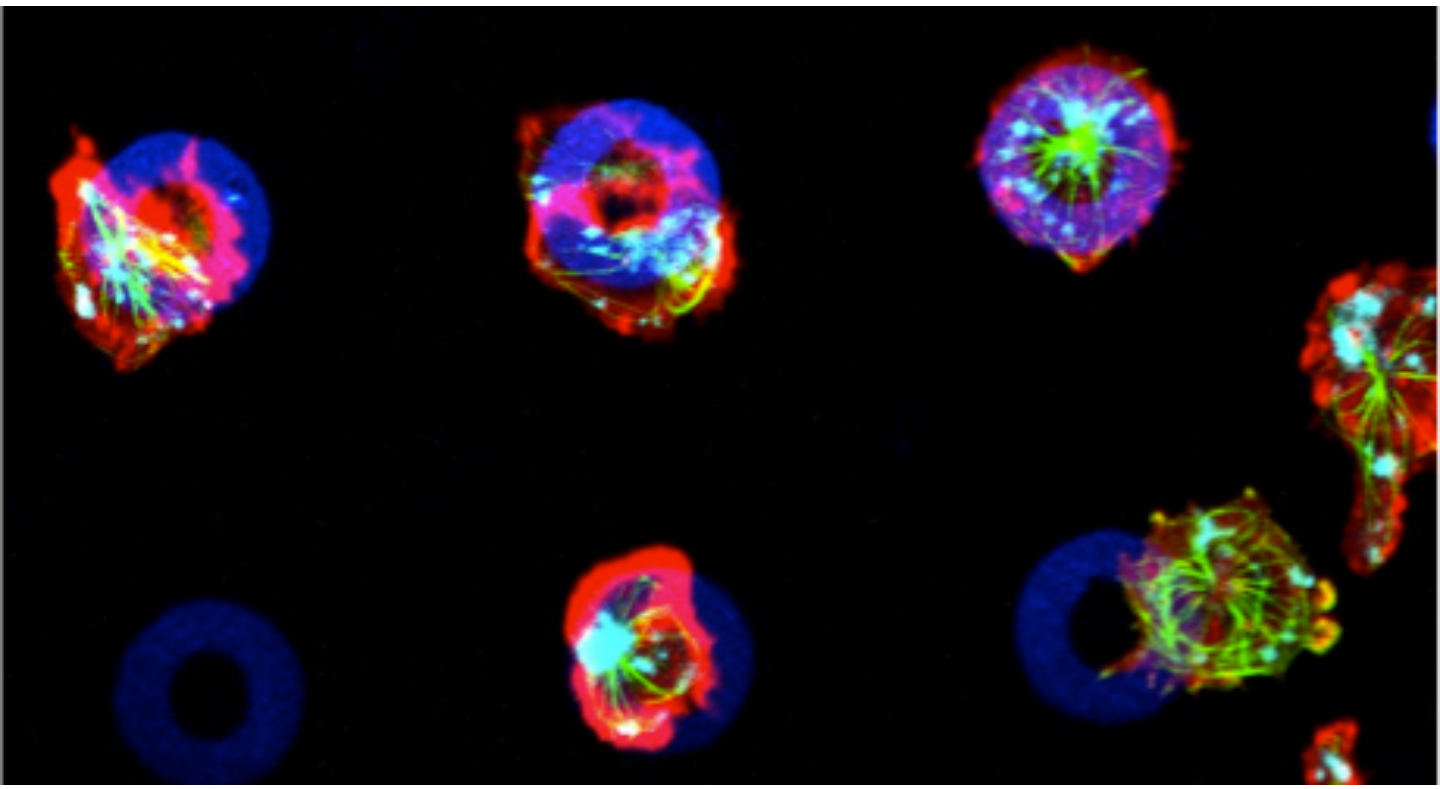

Photo: Elin Forslund

Science for Life Laboratory, Stockholm September 25-26, 2014

Workshop program 2014-09-25

"At the Interface between Applied Physics and Medicine"

08:00 – 08:20	Coffee and registration
08:20 – 08:30	OPENING REMARKS - Klas Kärre (KI)
08.30 – 10:10	***Session I*** *(Room: Earth/Fire, SciLife Lab)* Chair:
08:30 – 09:00	Hans Blom (SciLifeLab) *Superresolution imaging applied to neuroscience*
09:00 – 09:30	Laszlo Szekely (KI) *High throughput drug sensitivity measurements of primary human tumor cells assists accelerated drug discovery and individualizes therapy of cancer*
09:30 – 10:00	Enzio Di Fabrizio(UMG, KAUST) *Molecular sensing Imaging through nano approaches*
10:10 – 10:30	Coffee
10:30 – 12:40	**Session II** (Room: Earth/Fire, SciLife Lab) Chair:
10:30 – 11:00	Ying Fu (KTH) *Quantum-dot-based molecular bioimaging*
11:00 – 11:30	Luca Tirinato (KAUST, UMG) C*olorectal Cancer Stem Cells Revealed by Their Lipid Droplet Content*
11:30 – 12:00	Marie Arsenian-Henriksson (KI) *The MYCN oncogene and differentiation control in childhood neuroblastoma*
12:00 – 12:30	Michael Uhlin (KI/KTH) *Adoptive T cell therapy after allogeneic stem cell transplantation*
12:40 – 13:30	Lunch
13:30 – 15:40	**Session III** (Room: Earth/Fire, SciLife Lab) Chair:
13:30 – 14:00	Aman Russom (KTH) *Lab-on-DVD: A Novel Platform for Point of Care Diagnostics*
14:00 – 14:30	Hans Hertz (KTH) *Laboratory phase-contrast microimaging*
14:30 – 15:00	Patrizio Candeloro (UMG) *Multivariate analysis applied to Raman micro-spectroscopy: insulin role against brain ischemia*
15:00 – 15:30	Lars-Gunnar Larsson (KI) *Function, regulation and targeting of the Myc oncoprotein*
15:40 – 16:00	Coffee
16:00 – 16:00	**Session IV** (Room: Earth/Fire, SciLife Lab) Chair:
16:00 – 16:30	Pontus Aspenström (KI) *Rho GTPases in cancer cell migration*
16:30 – 17:00	Gerardo Perozziello (UMG) *Microfluidic Device for Single Cell Trapping and Label Free Optical Analysis*
17:00 – 17:30	Margareta Wilhelm (KI) *TAp73 and DNp73 have opposing roles in tumor angiogenesis*
17:30 – 18:00	Rolf Ohlsson (KI) *TBA*
18:00 –	Snacks and Mingle

Aii Mini symposia program 2014-09-26:

"At the interface between Applied physics and Immunology"

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08:00 – 08:30	Coffee
08:30 – 10:40	**Session V**
	Chairmen: Björn Önfelt and Ennio Carbone
08:30 – 09:00	Mats Wahlgren (KI) *Death from Malaria: development of novel therapy*
09:00 – 09:30	Cuda Gianni (UMG) *TBA*
09:30 – 10:00	Martin Wiklund (KTH) *Ultrasonic 3D cell culture*
10:00 – 10:30	Elin Forslund (KI/SciLifeLab) *NK cell education impacts migration and killing dynamics*
10:40 – 11:00	Coffee
11:00 – 13:10	**Session VI**
	Chairmen: Björn Önfelt and Klas Kärre
11:00 – 11:30	Annica Gad (KI) *Cell mechanics, nanoscale adhesions, and cancer*
11:30 – 12:00	Rossana Tallerico (UMG) *Mechanical stress and cancer immunogenicity*
12:00 – 12:30	Manola Moretti (KAUST) *Single Molecule Force Spectroscopy Of MHC-I On Cancer Cells*
12:30 – 13:00	Ennio Carbone (KI, UMG) *Brining together the potential of immune cells and the power of new drugs to target cancers by nanoparticles*
13:10 – 14:00	Lunch

Applied Physics (APHYS), Royal Institute of Technology (KTH)
The Department of Applied Physics is one of the largets departments in the School of Engineering Sciences. The research at the Department is primarily experimental and often multi-disciplinary. Prominent research areas include the science and technology of Bioimaging, Biomolecular Spectroscopy, Solid-State Lasers, Non-Linear Optics, Ultrasonics, X-rays, Nanostructures and Nanoelectronics.

Microbiology, Tumor and Cell Biology (MTC), Karolinska Institutet
Scientists at MTC perform experimental and translational research within the fields of Infection Biology (bacteria, viruses, parasites and infectious disease control), Immunobiology, and Cell and Tumor Biology. This unique spectrum of activities allows a multidisciplinary research environment in which different competences and perspectives interact in a cross-fertilizing manner, conceptually and methodologically. MTC possesses state-of the-art core facilities for mouse models, cell sorting and imaging.

Department of Experimental and Clinical Medicine (DMSC), UMG
The research activity at the Department of Experimental and Clinical Medicine of the University of Catanzaro (DMSC-UMG) of is focused on the following areas: Bio-medicine, Molecular Medicine, Bio engineering, Nanotechnology and Bio informatics. The integration of so many disciplines in a single Medicine Department makes DMSC unique in the Italian academic system.