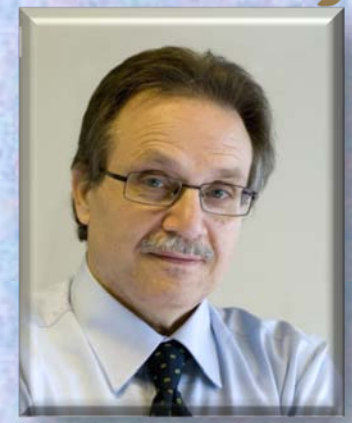
The 199th MANA Special Seminar



Tissue Engineering Strategies to Deliver Stem Cell-derived Cardiomyocytes to the Damaged Myocardium

Chair: Dr. Giancarlo Forte (MANA Scientist)

Dr. Paolo Di Nardo

(Laboratory of Cellular and Molecular Cardiology, University of Rome "Tor Vergata", Italy)

Despite important advancements, the pharmacological treatment of cardiovascular diseases remains not resolutive and organ transplantation is required in the final stages of the disease. Heart transplantation is a very expensive procedure and is limited by many causes to few selected patients. These drawbacks can be circumvented implanting new functionally efficient cells into the damaged myocardium. Nonetheless, stem cell delivery through bloodstream or direct intramural injection has been proven ineffective, few cells being retained within host tissue after few days. In the meantime, tissue engineering techniques have been proposed to fabricate ex vivo new efficient portions of cardiac muscle to be implanted into the damaged heart. This process requires stringent techniques to isolate and purify suitable stem cell populations and innovative materials to be used to fabricate a new generation of scaffolds able to positively interact with living systems. Innovative techniques are also needed to achieve the integration of newly fabricated myocardial bio-substitutes into the host heart.

Venue: **Seminar Room #431, MANA Bldg.**

Date: **March 8th (Tuesday)** ***Time:*** **11:00-11:45**

NAMIKI Site

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