

The 229th MANA Special Seminar



Smart Microtissues for Cardiac Repair

Chair: Dr. Giancarlo Forte (MANA Scientist)

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Myocardial infarction (MI) causes massive loss of cardiomyocytes, leads to formation of fibrotic tissue and induces a hypertrophic response in the surviving myocytes, resulting in impaired cardiac function. Current therapy consists of restoration of perfusion and pharmacological treatment to improve the function of the remaining viable cells and to prevent the development of heart failure. Currently, many cell transplantation protocols are being executed, but most protocols have no or a modest beneficial temporary effect. We aim to improve cardiac function in patients suffering from heart failure, by autologous cell based microtissue delivery. We are exploring the growth, cardiomyogenic and vasculogenic potential of cardiomyocyte progenitor cells and mesenchymal stem cells. Furthermore, we are developing bioactive microtissues, that should enforce homing, survival and function of cardiomyocytes and angiogenic cells.

Venue: Seminar Room #431-432, 4F, MANA Bldg., Namiki

Date: **November 7th (Monday)** **Time:** **14:00-14:45**

Contact: International Center for Materials Nanoarchitectonics (MANA), Nakata (ex. 8806)

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