

12th of September – 5.30 PM - **List of Pitches**

ISTEC-CNR (R&D Institution) – **Anna Costa**



Description: In this contribute we show the production of nanostructured microcapsule as powerful tool in green chemistry. Two spray-granulation techniques transformed fine powders into free-flowing, dust-free granules easy to encapsulate active phases and to be easily compressed, handled, stored or recovered. The delivered particulate structures can be considered a safe by design solution because preserve “new” properties exhibited at nanoscale but decrease potential risks of an exposure to nano-objects. **Networking Profile:** <https://nanoinnovation2018.b2match.io/participants/93>

Tiberlab Srl (SME) – **Fabio Sacconi**



Description: The product offered is TiberCAD, an integrated CAE software for the multi-scale design, analysis and optimization of innovative nanotechnology products for applications in Key Enabling Technologies (micro-nanoelectronics, photonics, advanced materials), such as quantum well and quantum dot-based LEDs, nanometric FET devices, III-V semiconductors, photovoltaic cells for space applications, organic solar cells (OPV), Dye Solar Cells (DSC). **Networking Profile:** <https://nanoinnovation2018.b2match.io/participants/22>

ASTER (Authority/Government) – **Guida Domenico**



Description: The final target of Nems4Bio demo case is to obtain a single chip able to perform a complete health check based on a tiny blood sample: Imagine a Si chip combining debris filtering, morphology-based cell sorting, individual droplet-based cell lysis, selective fluorescent sub-cellular marking and quantitative detection, finally DNA sequencing. Si technology ultimately enables this but the challenge of integrating many functional modules on chip, bringing in the fluid sample or reagents and bringing out the data – i.e. connecting the Si chip fluidically, electrically and optically to the outside world – persists. And why not using the very same technology building blocks for analyzing the composition of fluid food & beverage samples, biotech production, environmental water analysis and more. **Networking Profile:** <https://nanoinnovation2018.b2match.io/participants/44>

Università di Perugia (University) – **Antonella D’Alessandro**

Description: The idea is the production of an innovative smart composite brick doped with nanofillers, with self-monitoring abilities. Such element would combine structural and sensing properties, producing diffuse multifunctional capabilities in structures and infrastructures. In particular, the topic of monitoring of structures under service conditions results of growing interest for the protection of the people who utilize them. The idea of a construction material which acts as a sensor could improve the structural safety by self-detecting structural modifications, signs of fractures or possible incipient damages. **Networking Profile:**



<https://nanoinnovation2018.b2match.io/participants/90>

CNR (R&D Institution) – **Diego Liberati**



Consiglio Nazionale
delle Ricerche

Description: Nanodrugs are one of the dreams of the near future: it would be nice to have a drug, embedded in a shield, traveling fast through the blood, dismissing the shield just at the very target, and heal! This seems true for example in the case of a molecule against cirrhosis, shielded of sugar, not interacting in blood, fast reaching just via diffusion and circulation the liver - eager of sugar, thus exposing the drug - and locally improving. But in general, it is not that easy. Two main points rest at least to be solved. **Networking Profile:** <https://nanoinnovation2018.b2match.io/participants/8>

LightFull (SME) – Teresa Tolin



Description: Lightfull aims at improving the 'habitat with bio-compatible facilitating saving resources provides flexible, practical and economical for the safety and comfort of people living in the new global economy: Safety and responsibility. They are the basis of projects increasingly advanced, reliable and value for stakeholder in this scenario Lightfull aims to customer defined governance, as preferred partner shared values of customer satisfaction, problem solving and sustainability.

Università di Tor Vergata (University) – Fabrizio Quadrini

Description: Nano-coating fragmentation is a patented manufacturing technology for the production of polymeric matrix nanocomposites. It combines technologies of thin film coating and thermoplastic polymer processing. An example is coating thermoplastic pellets with metals by means of physical vapor deposition technique. These pellets can be used for the manufacture of plastic goods by injection molding. **Networking Profile:**

<https://nanoinnovation2018.b2match.io/participants/69>



ISTEC-CNR (R&D Institution) – Raimondo Mariarosa



Description: Design and production of industrial prototypes with amphiphobic (superhydrophobic plus oleophobic) surfaces (TRL=5). Discussion of relevant properties - self cleaning, friction and drag reduction, anti-icing, anti-soiling, anti-fouling, anti-corrosion, improvement of heat exchange, etc. - connected with the low wettable states of surfaces. The application of amphiphobic materials with self cleaning, friction and drag reduction ability, anti-icing, anti-soiling and anti-fouling, anti-corrosion, improvement of heat exchange, etc., is of great relevance for many industrial fields (aeronautic, naval and maritime, energy and environment, mechanic and mechatronic, building, packaging, etc).

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Università di Bologna (University) – Francesco Romano

Description: Quantum dots are a new class of light emitting nanomaterials with applications spanning through: LED (e.g. QDLED-TV), light conversion, catalysis and bioimaging. Unfortunately they are made of elements that are often expensive, rare or toxic. Silicon nanocrystals (SiNCs) can be a good alternative, providing to overcome the poor absorption capability in the visible range. Within the ERC Proof of Concept Grant 2017 (SiNBioSys), we are addressing this problem by decorating with dyes their surfaces. Surface dyes absorb light and funnel excitation energy to the silicon core: this is the working principle of a molecular light-harvesting antenna. The resulting system is extraordinary bright and, most importantly, the sensitised luminescence is long-lived (lifetime of hundreds of microseconds) and it is not sensitive to molecular oxygen. **Networking Profile:** <https://nanoinnovation2018.b2match.io/participants/94>



Green Pupae (SME) – Irina Vetere



Description: Green Pupae is an innovative start up that obtains from insects ingredients and actives for the production of food supplements and cosmetic products, active ingredients and organisms/derivatives for pharmaceutical and biotechnological applications. The production

model involves the relocation of breeding modules managed by farmers interested in carrying out a business activity to supply the raw material and open new market outlets within the primary sector. **Networking Profile:** <https://nanoinnovation2018.b2match.io/participants/74>