

5 Ottobre 2018 Aula Convegni
Ore 11.00 – 13.00

Experimental and Numerical Advances in Nanotechnology for Precision Medicine

Prof. Paolo Decuzzi

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Italian Institute of Technology

Main Aspects of the Talk:

- Description of new technologies for **precision medicine**;
- The role of **engineering** in precision medicine;
- **Experimental** advances at nanoscale for medical treatment;
- **Numerical Simulations** of complex flows for precision medicine;
- **Case studies** spanning the broad range of applications.

Paolo Decuzzi earned his M.Sc. degree in Mechanical Engineering from the Politecnico di Bari (Italy) in 1997 and his Ph.D. degree in Mechanical Engineering from the University of Naples – Federico II (Italy) in 2000, with a thesis on friction and adhesion at the nanoscale. In 2002, he was nominated Assistant Professor of Machine Design at the Politecnico di Bari and, in 2005, he became Associate Professor in the School of Medicine of the University 'Magna Graecia'. There, he cofounded **BioNEM** - the laboratory of BioNanotechnology and Engineering for Medicine - one of the first nanoengineering laboratories built in a School of Medicine. In October 2007, he joined The **University of Texas Health Science Center** in Houston as an Associate Professor of Biomedical Engineering. In October 2010, he moved to the **Houston Methodist Hospital** where he served as a Professor of Biomedical Engineering till July 2015. There, he founded the Center for the Rational Design of Multifunctional Nanoconstructs; he served first as the **co-chair of the Nanomedicine Department** and then as the **interim chair of the Translational Imaging Department**.

In July 2014, Dr. Decuzzi was awarded a 5-year **European Research Council "Consolidator Grant"** to design, synthesize and develop nanoconstructs for imaging and therapy in brain cancer.



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