



1st Summer school
Trento, Italy

Next generation of bio-responsive materials in TERM

Modelling processes towards sustainability and costs reduction

11-15 SEPTEMBER 2023

SCHOOL OF INNOVATION, UNIVERSITY OF TRENTO

VIA TOMMASO GARR 16/2, TRENTO, ITALY

FULL PROGRAM

Monday, September 11th

Topic: Natural Derived Materials for TERM biomaterials

11:00-14:00 Registration of participants

14:00-14:30 Welcoming and Opening session

14:30-15:30 **Rui L. Reis, University of Minho, Braga, Portugal**
Title: Natural Origin Materials in TERM and other Biomedical Applications

15:30-16:00 COFFEE BREAK

16:00-17:00 **Elizabeth Rosado Balmayor, University Hospital RWTH, Aachen, Germany**
Title: Gene therapy – principles and applications to tissue regeneration

17:00-18:00 **Giancarlo Forte, King's College London, London, United Kingdom**
Title: The molecular basis of cellular mechanosensing

18:00-19:00 WELCOME RECEPTION

END OF THE DAY

Tuesday, September 12th

Topic: Natural Derived Materials for TERM biomaterials

9:00-10:00 **Shlomzion Shen, Seevix, Jerusalem, Israel**
Title: SVX™, Seevix's State-of-the-Art Biopolymer Inspired by Spider Silk, Powers the Development of Sustainable High-Performance Products Destined to Change Our World

10:00-11:00 **Alicia El Haj, University of Birmingham, Birmingham, United Kingdom**
Title: Defining the route to the clinic for Cell and Acellular biomaterial therapies

11:00-11:30 COFFEE BREAK

11:30-12:30 **Mh Busra Fauzi, Universiti Kebangsaan, Bangi, Malaysia**
Title: Multifunctional Natural-based Biomaterials Strategies for Cutaneous Tissue Engineering: Conventional Approach towards Advance Technology 3D-Bioprinting

12:30-14:00	LUNCH
Topic: Sustainable processing for biofabrication	
14:30-15:30	<p>Michael Monaghan, Trinity College Dublin, Dublin, Ireland Title: Non-Invasive classification of stem cell differentiation and macrophage polarisation by 2P-FLIM and machine learning</p>
15:30-16:30	<p>Paolo Netti, University of Naples, Napoli, Italy Title: On-chip simulation of the efficacy and safety of novel materials, therapeutics and diagnostic approaches</p>
16:30-17:00	COFFEE BREAK
17:00-17:45	Rapid fire talks (10 ESRs, 3 min presentation)
END OF THE DAY	
Wednesday, September 13th	
Topic: Sustainable processing for biofabrication	
9:00-10:00	<p>Nuno M. Neves, University of Minho, Braga, Portugal Title: On the Sustainable Fabrication of Functionalized Medical Devices and Nanostructures for Advanced Therapies</p>
10:00-11:00	<p>Gilson Khang, Jeonbuk National University, Jeonju, South Korea Title: Development of Novel Nature-derived Biomaterials for TERM</p>
11:00-11:30	COFFEE BREAK
11:30-12:30	<p>Francesco Grassi, IOR, Bologna, Italy Title: Use of human derived bone materials for 3D printing</p>
12:45-14:00	LUNCH
14:30-16:00	<p>Luca Mion and Davide Ederle, Hub Trentino Innovation, Trento, Italy Title: Technology Transfer principles and challenges</p>
16:00-18:00	SOCIAL EVENT: Trento Sotterranea
20:00-22:30	SOCIAL DINNER
END OF THE DAY	
Thursday, September 14th	
Topic: Tissues, organs and systems on-chip design, and biofabrication	
9:00-10:00	<p>Utkan Demirci, Stanford University, Stanford, USA Title: Microfluidic label-free sorting technologies for applications in medicine: From Isolation of Extracellular Vesicles in Biological Fluids to Microswimmers</p>

10:00-11:00	Carlos Mota, Maastricht University, Maastricht, Netherlands Title: Biofabrication: from tissue engineered implants to in vitro models
11:00-11:30	COFFEE BREAK
11:30-12:30	Gozde Durmus, Stanford University, Stanford, USA Title: Magnetic Levitation of Cells for Applications in Biofabrication and Cell sorting
12:45-14:00	LUNCH
Topic: Standards, regulations and pre-clinical trials	
14:30-15.30	Gino Gerosa, University of Padova, Padova, Italy Title: Heart Transplant from DbD to DcD: the Journey
15:30-16:30	Tony Metcalfe, University of Birmingham, Birmingham, United Kingdom Title: Scar Trek - at the crossroads of developmental biology, repair and regeneration
16:30-17:00	COFFEE BREAK
17:00-18:00	Luca Tiberi, University of Trento, Trento, Italy Title: Modeling brain tumor with human organoids
18:00-18:45	Rapid fire talks (10 ESRs, 3 min presentation)
END OF THE DAY	
Friday, September 15th	
Topic: Standards, regulations and pre-clinical trials	
9:00-10:00	Martijn van Griensven, Maastricht University, Maastricht, Netherlands Title: Preclinical models as starting point for clinical translation
10:00-11:00	Miguel Alaminos, University of Granada, Granada, Spain Title: Clinical translation of human bioartificial tissues as advanced therapies medicinal products
11:00-11:30	COFFEE BREAK
11:30-12:30	Annalisa Tirella and Devid Maniglio, University of Trento, Trento, Italy Title: Defining the support of AI to TERM scientists
12:30-12:45	General Discussion and Closing remarks
13:00-14:30	LIGHT LUNCH
END OF THE SCHOOL	

