



UNIVERSITÀ DEGLI STUDI
DI GENOVA



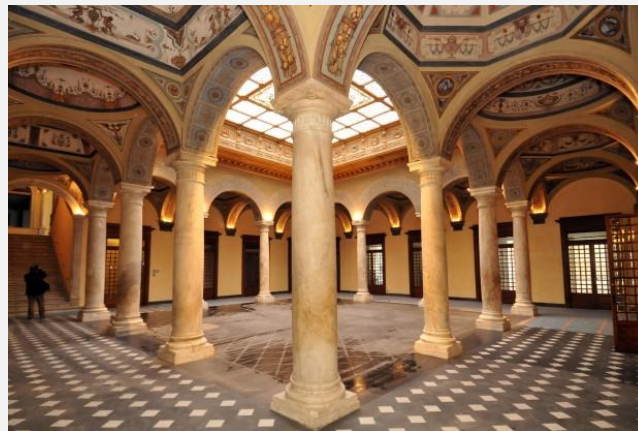
DISC

*Department of Surgical Sciences
and Integrated Diagnostics*



International conference **TRACE**

TISSUE REGENERATION: ADVANCED CERAMICS AND COMPOSITES



**Palazzo della Meridiana
Salita San Francesco 4 Genova – Italy**

October 19-20, 2017



PRESIDENTS OF THE FIRST TRACE CONFERENCE



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Materials Science and
Engineering
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CHAIRS



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Granted PhD scholarship in
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INTERNATIONAL SCIENTIFIC COMMITTEE

Barbaro K. (Italy), Barinov S. (Russia), Benedicenti S. (Italy), Boccaccini A. (Germany), Cacciotti I. (Italy), Carrara S. (Switzerland), Celasco E.(Italy), Cerboni F. (Italy), Chiappelli F. (USA), De Cian F. (Italy), Dettin M. (Italy), Diaspro A. (Italy), Facci P. (Italy), Gadow R. (Germany), Krajewski A. (Italy), Lin F.H. (Taiwan), Mingazzini C. (Italy), Quarto R. (Italy), Riley D.J. (UK), Rolandi R. (Italy), Rustichelli F. (Italy), Salerno M. (Italy), Siegel R.W. (USA), Sivozhelezov V. (Russia), Timmermans C. (Netherlands), Uskokovic D. (Serbia), Valera P. (Italy), Ventura C. (Italy).

PROMOTED AND ORGANIZED BY:

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MAIN TOPICS AND ROUND TABLE

A large number of materials is available as carrier for cells and drugs. Several polymeric scaffolds and composites are on trade, but they present some issues connected to long-term exercise, nature of materials and reaction with active principles and tissues. A project will be proposed on multi-doped silico-calcium-phosphate for tissue regeneration (MUSICAP).

BONE SIMULATIONS AND MODELS FOR TISSUE ENGINEERING

- Mineral evolution of bone
- Bone remodelling
- Biomechanics and evolution
- Research for animal healthness

THE CELL AS BIOMATERIAL: IN VITRO TISSUE REBUILDING

- Cell metabolism and the immune system
- Cell cultures on biomaterials
- Organization and dynamics of biomolecules and cells on surfaces
- Monitoring adhesion events for cells on surfaces
- Exploitation of artificial organs
- In-vitro control of tissues and organs development

BIOLOGY AND MATERIALS: FROM BENCH TO BEDSIDE

- Tissue engineering and drug delivery
- Bioactive materials and bioactivity testing
- Tissue engineering and biomineralization
- Biodegradable scaffolds
- Biomechanics of cell-material adhesion
- Cardiovascular systems

ADVANCED TECHNOLOGIES FOR THE STUDY OF MATERIALS FOR TISSUE ENGINEERING

- Characterization techniques: SEM-EDS, AFM, XPS, SIMS, TEM, ESEM
- Micro- and nanotechnologies

PROGRAM OVERVIEW

Wednesday Oct 18

17.30 - 18.30 Guided tour to Palazzo Nicolosio Lomellino and Piola's pictorial exhibition

19.00 Welcome party

	Time	Session	Topic/Event	Chairmen
Thursday October 19	9.00 – 9.30	Opening of the registration desk in the Congress Hall Palazzo della Meridiana Salita San Francesco 4, 16124 Genova		
	9.30 - 10.30	1	Opening session: introduction and general lectures	R. Eggenhöffner, A. Ravaglioli, L. Giacomelli (Italy)
	10.30 10.45	Coffee break		
	10.45 - 12.40	2	Tissue regeneration and nanoscale templates	R. W. Siegel (USA), I. Cacciotti (Italy)
	Lunch			
	14.20 – 15.15	3	Implants and drugs	C. Timmermans (The Netherlands), R. Eggenhöffner (Italy)
	15.15 – 15.30	4	Special session	C. Timmermans (The Netherlands)
	15.30 – 15.45	Coffee break		
	15.45 – 16.40	5	Antibacterial and antitumor composites	L.Pastorino, S. Ferraris (Italy)
	20.00 – 22.00	Social Dinner in Palazzo Ducale Piazza Giacomo Matteotti 5, 16123 Genova - Italy		

PROGRAM OVERVIEW

Friday October 20	Time	Session	Topic/Event	Chairmen
	9.30 - 10.40	1	Composite materials and coatings	R.Gadow (Germany) A.Boccaccini (Germany)
	10.45- 11.00	Coffee break		
	11.00 - 12.40	2	Special session on advanced genomic and proteomic tools	L.Giacomelli, M.Dettin (Italy)
	14.00 – 15.15	3	Distinguished lectures	R.W.Siegel, T.J.Webster (USA)
	15.15- 15.30	Coffee break		
	15.30- 17.30	4	Round Table	

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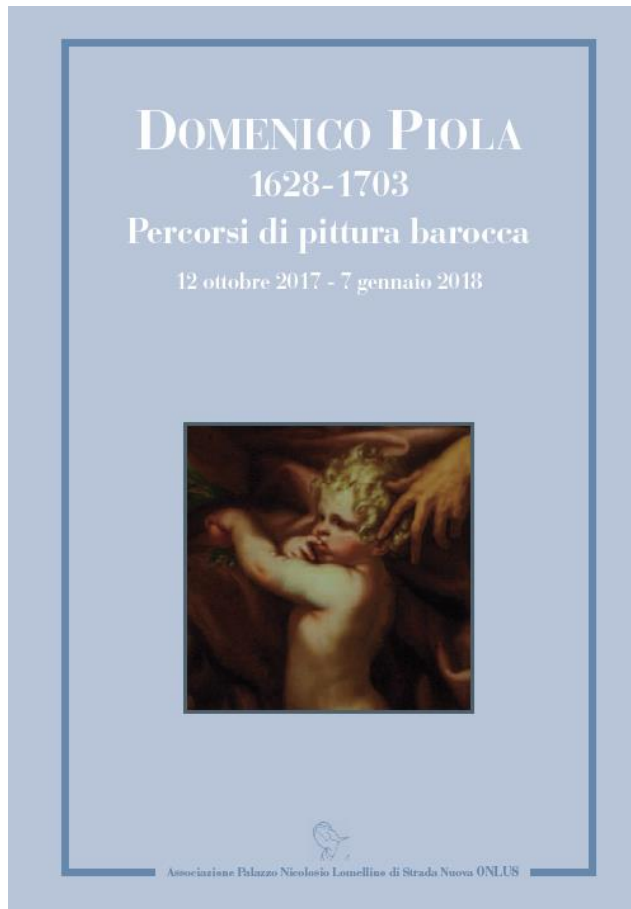
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PROGRAM OF
WEDNESDAY, OCTOBER 18
Palazzo Nicolosio Lomellino



5.30 p.m. - 6.30 p.m. Guided tour to Palazzo Nicolosio Lomellino and Piola's pictorial exhibition



At 7.00 p.m. Welcome party at the premises of “Palazzo Rosso” Via Garibaldi, 18 Genova



OPENING OF THE MEETING & SEMINAR ON

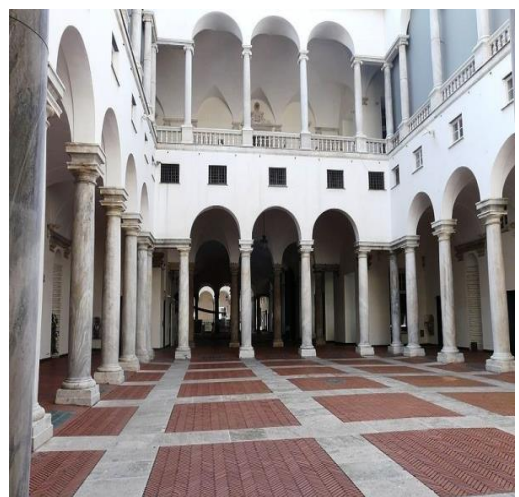
Thursday, Oct 19

Congress Hall of Palazzo della Meridiana

9.00	Registration
SESSION 1- Introduction and general lectures <i>Chairmen:</i> R. Eggenhöffner, A. Ravaglioli, L. Giacomelli (Italy)	
9.30	Introduction to TRACE R. Eggenhöffner DISC, University of Genova - Italy
9.40	Authorities
9.50	University Rector
10.00	Distinguished lecture - From bionic man to the tissue and genetic engineering: the role of composites A. Ravaglioli DISC, University of Genova - Italy
10.30	Coffee break
SESSION 2 - Tissue regeneration and nanoscale templates <i>Chairmen:</i> R. W. Siegel (USA), I. Cacciotti (Italy)	
10.45	Innovative bioactive ceramics, glass—ceramics and composites for bone regeneration I. Cacciotti University of Rome "Niccolò Cusano" (Italy)
11.05	3D-Printed Bioceramic Structures and Osteoplastic Cell Growth R. Gadow, S. Eßlinger, A. Bernstein University of Stuttgart (Germany)
11.25	Response of neuronal-like living cells to nanoporous substrates of anodic alumina M. Salerno, C. Toccafondi, S. Dante IIT - Istituto Italiano di Tecnologia (Italy)
11.45	Controlled cyclic compression and transcription analysis pipeline for single-cell investigation P. Gavazzo, L. Petecchia, P. Facci, M. Vassalli, F. Viti CNR - National Research Council (Italy)
12.05	Advanced Tomographic Techniques Based on Synchrotron Radiation in Regenerative Medicine F. Fiori, A. Giuliani, F. Rustichelli Università Politecnica delle Marche (Italy)
12.25	Discussion

SESSION 3 - Implants and drugs	
<i>Chairmen:</i> C. Timmermans (The Netherlands); R.Eggenhöffner (Italy)	
14.20	Controlled Gentamicin release from alginate modified brushite cement S.M.H. Dabiri, A. Lagazzo, B. Aliakbarian, E. Finocchio, L. Pastorino Department of Informatics, Bioengineering, Robotics, and System Engineering, University of Genova (Italy)
14.40	Tri-calcium- phosphate (TCP) ceramic C.J. Timmermans Tesla Pharma R&D Centre Meppel (The Netherlands)
15.00	Discussion
SESSION 4 – Special session	
15.15	The treatment of urine incontinence C.J. Timmermans Tesla Pharma R&D Centre Meppel (The Netherlands)
15.30	Coffee break
SESSION 5 – Antibacterial and antitumor composites	
<i>Chairmen:</i> L.Pastorino (Italy), S.Ferraris (Italy)	
15.45	Regenerative medicine: repair of articular cartilage by the use of tracheal chondrocytes F.Canonici, A.Cersini, C.Cocumelli, E.Galvano, F.Di Egidio, A.Amaddeo, A.Fagiolo, C.Roncoroni, A.Altigeri, A.Zepparoni, P.Ghisellini, C.Rando, L.Giacomelli, K.Barbaro, R.Eggenhöffner Istituto Zooprofilattico Sperimentale del Lazio e Toscana (Italy)
16.05	Antibacterial nanostructured coatings obtained by cosputtering of silver and silica F. Baino, C. Balagna, S. Ferraris, M. Miola, S. Perero, E. Verné, M. Ferraris Politecnico di Torino (Italy)
16.25	Discussion

8 p.m. – 10 p.m. Social dinner at Palazzo Ducale
Piazza Giacomo Matteotti 5
16123 Genova - Italy



Friday, Oct 20

Congress Hall of Palazzo della Meridiana

SESSION 1 - Composite materials and coatings <i>Chairmen:</i> R. Gadow (Germany), A. Boccaccini (Germany)	
9.30	Bioactive glasses for the controlled delivery of therapeutic ions for re generation and antibacterial effects: progress and challenges A. Boccaccini University of Erlangen-Nuremberg (Germany)
9.50	Biocompatibility and tribological performance of carbon-fiber SiSiC materials for prosthetic devices Bernstein A., Gadow R., Jimenez, M., Mayr H.O., Reichert A., Südkamp N.P., Weichand P. University of Stuttgart (Germany)
10.10	Metal doped bioceramic coating with drug release potential R. Gadow, P. Krieg, A. Killinger, A. Bernstein, S. Burtscher University of Stuttgart (Germany)
10.30	Discussion
10.45	Coffee break
SESSION 2 - Special session on advanced genomic and proteomic tools <i>Chairmen:</i> L. Giacomelli (Italy), M. Dettin (Italy)	
11.00	Adhesive protease-resistant peptides grafted to silicate foams improve h-osteoblast proliferation and gene expression A. Zamuner, P. Brun, H. Elsayed, I. Castagliuolo, E. Bernardo, M. Dettin University of Padova (Italy)
11.20	An in vivo and in vitro nanotoxicity study of Pegylated gold nanorods as a contrast agent for 2PE imaging R. Magrassi, G.N. Abdelrasoul, S. Dante, M. d'Amora, M. Scotto d'Abbusco, T. Pellegrino, A. Diaspro CNR - National Research Council IIT - Istituto Italiano di Tecnologia (Italy)
11.40	Towards the standardization of bioactivity testing: the global project S. Ferraris, S. Spriano, E. Vernè, F. Baino, M. Miola, V. Peretti, S. Yamaguchi Politecnico Torino (Italy)

12.00	<p>The Gene chain, a blockchain genomic platform and the use of genetic metadates</p> <p>M. Viviani Encrypogen (USA). With an introduction by S. Zanfrini (Italy).</p>
12.20	<p>Transcription factor-based approach to data mining on ceramics-related tissue regeneration genes: linking tissue regeneration with development (distinguished lecture)</p> <p>Victor Sivozhelezov Russian Academy of Sciences of Moscow (Russia)</p>

SESSION 3 - Distinguished lectures

Chairmen: R.W. Siegel (USA), T. J. Webster (USA)

14.00	<p>The age of nanobiotic: improving tissue growth while reducing infection with nanotechnology</p> <p>T. J. Webster Northeastern University, Boston (USA)</p>
14.30	<p>Protein-Nanostructure Interactions</p> <p>R.W. Siegel Rensselaer Polytechnic Institute Troy (USA)</p>
15.00	Discussion
15.15	Coffee break

SESSION 4 - Round table

15.30	<p>Nanotechnology and genetics: cells and advanced technology for tissue engineering</p> <p>promoted by copresidents, cochairmen, T. Webster, R. Gadow with the participation of M. Dettin, C.J. Timmermans and S. Zanfrini</p>
17.30	Closing Remarks

capurro
dal 1901 *Ricevimenti*
QUANDO C'È UNA STORIA



 LE TERRAZZE
DEL DUCALE RISTORANTE



GENERAL INFORMATION

REGISTRATION

The registration fee covers: Guided tour to Palazzo Nicolosio Lomellino and Piola's pictorial exhibition, welcome party, participation to the meeting-seminar, coffee breaks; social dinner, documentation of the meeting with bag, TRACE Conference book of proceedings.

Accompanying persons can attend the meeting free of charge.

REGISTRATION FEE:

300 Euro

200 Euro Students*

* For undergraduate and PhD students: please provide a letter from your tutor.

PAYMENT

Participation fee can be paid up to one day before the start of the Conference by bank transfer to:

Dipartimento di Scienze chirurgiche e Diagnostiche Integrate (DISC) Università degli Studi di Genova

Bank: Banca Carige S.p.a. Ag. 6 P.zza Dante 40 R - 16121 – Genova

IBAN: IT42A0617501406000002369690

BIC/Swift: CRGEITGG090

HOTEL ACCOMODATION

The following is a list of hotels in Genova that have special agreement with the University of Genova. Please take care of your own hotel reservation. Conference organization does not take any responsibility for any unforeseen circumstance that may occur.

Starhotels President ****	Corte Lambruschini, 4	reservations@starhotels.it	00800 0022 0011 +39 055 36925
Hotel Vittoria & Orlandini ***	Via Balbi, 33-45	info@hotel-vittoria-genova.it	+39 010 261923
Hotel Nuovo Nord ***	Via Balbi, 155	reservation@hotelnuovonord.com	+39 010 2464470
Holiday Inn Genova City ****	Via Milano, 47	reservations@higenova.it	+39 010 2534060
Grand Hotel Savoia Hotel Continental Genova *****	Via Arsenale di Terra, 5	info@grandhotelsavoia.it info@hotelcontinentalgenova.it	+39 010 277 2828 +39 010 261 641
Columbus Sea Hotel Genova ****	Via Milano, 63	sales@columbussea.com	+39 010 0980966
Best Western Porto Antico Genova ***	Via Ponte Calvi, 5	portoantico.ge@bestwestern.it	+39 010 265759
Best Western City Hotel Genova ****	Via S. Sebastiano, 6	city.ge@bestwestern.it	+39 010 584707
Best Western Hotel Moderno Verdi Genova ****	Piazza Giuseppe Verdi, 5	info@modernoverdi.it	+39 010 5532104
AC Hotel Genova **** L	Corso Europa, 1075	mrossetti@ac-hotels.com	+39 010 307 1180

