GNB 2020 - TRIESTE
10th-12th June 2020

DRAFT PROGRAM AT A GLANCE

	DAY 1	DAY 2	DAY 3
	THEME 1 **Informatics and Electronics**	**THEME 2** **Clinical Biomechanics**	**THEME 3** **Applied Bioengineering**
8:00-9:00	Registration	Registration	Registration
9:00-10:30		**PODIUM SESSION THEME 2** TRACK 3: Biomechanics and mechanobiology TRACK 4: Biomaterials, tissue engineering and regenerative medicine	**PODIUM SESSION THEME 3** TRACK 5: Artificial Organs, Medical and assistive robotics TRACK 6: Neural and rehabilitation engineering
10:30-11:00	Welcome Address	*Coffee break*	*Coffee break*
11:00-12:00	**Opening Lecture** **Riccardo Pietrabissa, Rector of the University School for Advanced Studies IUSS Pavia** **The quality of life: an integrated approach**	**Keynote Lecture:** **Prof. Johan H.C. Reiber, Department of Radiology, Leiden University Medical Center (LUMC)** **Cardiology and bioengineering**	**Keynote Lecture:** **Alberto BRAVIN** **ID17 Beamline Responsible** **ESRF-Grenoble** **Medical Application of Synchrotron Radiation**

Time			
12:00-12:30	**<u>Distinguished Young Researcher POSTER PRESENTATION THEME 1</u>** TRACK 1: E-Health and clinical engineering TRACK 2: Biomedical signals, images, and Bioinformatics	**<u>Distinguished Young Researcher POSTER PRESENTATION THEME 2</u>** TRACK 3: Biomechanics and mechanobiology TRACK 4: Biomaterials, tissue engineering and regenerative medicine	**<u>Distinguished Young Researcher POSTER PRESENTATION THEME 3</u>** TRACK 5: Artificial Organs, Medical and assistive robotics TRACK 6: Neural and rehabilitation engineering
12:30-14:00	*Lunch & Poster*	*Lunch & Poster*	*Lunch & Poster*
14:00-15:30	**<u>FORUM</u> New issues in Clinical Engineering**	**<u>FORUM</u> Bioengineering research for the people**	**<u>FORUM</u> Bioengineering innovation for industries**
15:30-16:00	*Coffee break*	*Coffee break*	GNB 2019 Awards Closure
16:00-17:00	**Keynote Lecture: Ratko Magjarevic IFMBE President IoT and Clinical Engineering**	Cultural event/Synchotron facilities visit	
17:00-18:30	**<u>PODIUM SESSION THEME 1</u>** TRACK 1: E-Health and clinical engineering TRACK 2: Biomedical signals, images, and Bioinformatics		
18:30-20:00	Welcome aperitif	Social Dinner	

Nota: Il programma del convegno verrà definito nei particolari (interventi durante le podium session) in prossimità dell'evento in funzione degli articoli che verranno sottomessi al convegno

TRACKS AND THEMES

THEME 1: Informatics and electronics
1. E-Health and clinical engineering (Mario CESARELLI e Giovanni D'ADDIO [ICSMaugeri])
   - eHealth and healthcare information systems
   - Clinical instrumentation
   - Data protection and regulations
   - Telehealth, telemonitoring, and mobile Health
   - Internet of health things applications
   - Decision support systems
   - Big data analytics and cognitive computing

2. Biomedical signals, images, and Bioinformatics (Beppe BASELLI e MG SIGNORINI - POLIMI)
   - Time frequency and time-scale analysis
   - Complexity and Non-linear analysis
   - Multiscale processing and multimodal integration
   - Biomedical signal and bioimage acquisition
   - Image segmentation and registration
   - Systems biology
   - Genomic, proteomics and metabolomics
   - Data mining

THEME 2: Clinical Biomechanics
3. Biomechanics and mechanobiology (Francesco MIGLIAVACCA – POLIMI, Umberto MORBIDUCCI - POLITO)
   - Cardiovascular biomechanics
   - Flow-Tissue interaction in biomechanics
   - Orthopaedics biomechanics
   - Respiratory biomechanics

- Musculoskeletal modelling
- Hard and soft tissues mechanics and remodelling
- Cell mechanics and mechanotransduction

4. Biomaterials, tissue engineering and regenerative medicine (Luca CRISTOFOLINI – UniBO, Alberto AUDENINO - POLITO)
   - Biological engineering
   - Microfluidic cell modelling
   - Nanostructured materials

THEME 3: Applied bioengineering

5. Artificial Organs, Medical and assistive robotics (Cecilia LASCHI e Leonardo RICOTTI- S. Anna)
   - Surgical robotics and Computer-assisted surgery
   - Rehabilitation robotics
   - Assistive and wearable robotics and devices
   - Implantable devices and prostheses
   - Extracorporeal support
   - Micro-nano-bio systems and targeted therapies

6. Neural and rehabilitation engineering (Eugenio GUGLIELMELLI e Loredana ZOLLO - Campus biomedico)
   - Brain-computer interaction
   - Neuromodulation
   - Neurorehabilitation
   - Gait and movement analysis
   - Smart biosensors