CURRICULUM VITAE

NAME: Mauro Giacomini
DATE AND PLACE OF BIRTH: April 17, 1963, Genova (Italy)

EDUCATION:
Ph. D. in Bioengineering, University of Genova - July 1993
Degree in Electronic Engineering, University of Genova - December 1987 (110/110 cum laude)

POSITION HELD:
1988/1990: research assistant at the Department of Communication Computer and System Sciences, University of Genova
1991/1993: Ph. D. student in Bioengineering at the Department of Communication Computer and System Sciences, University of Genova
1992/1995: teaching assistant in Medical Informatics, University of Genova
1993/1994: external collaborator at the S. Luigi AIDS Centre at the S. Raffaele Hospital in Milan
1993/1996: Post Dot Fellow at the Department of Communication Computer and System Sciences, University of Genova
1994/1996: external collaborator at the Molecular Virology Unit at the Advanced Biotechnology Centre of Genova
1997/1998: Post Dot Fellow at the Molecular Virology Unit at the Advanced Biotechnology Center of Genova, funded by the Italian Health Istitute, within the AIDS programme
1997/1999: Visiting Professor of Biomedical Signal and Data Elaboration at the Department of Communication Computer and System Sciences, University of Genova
1999/2002 Researcher in Bioengineering at the Department of Communication Computer and System Sciences, University of Genova
2002/2006 Confirmed Researcher in Bioengineering at the Department of Communication Computer and System Sciences, University of Genova
2006/2012 Aggregate Professor in Bioengineering at the Department of Communication Computer and System Sciences, University of Genova
2012 - Aggregate Professor in Bioengineering at the Department of Informatics, Bioengineering, Robotics and System Engineering, University of Genova
2013 - Aggregate Professor in Bioengineering at the Centre of Excellence for the Biomedical Research, University of Genova.

COURSES:
2000/2006 Laboratory of Bioengineering in the Biomedical Engineering Course
2002/2005 Data and Signal Treatment in the Bioengineering Course
1999/2009 Applied Microbiology in the Specialization School of Microbiology
2001/2009 Informative Systems and Telemedicine in the Biomedical Engineering Course
2007/2009 Cellular and Tissue Engineering in the Bioengineering Course
2004/2010 Complements of Medical Informatics in the Bioengineering Course
2007/2011 Electronic and Informatics Bioengineering in the Health Care Professional Course
2010/2012 Clinical Engineering and Health Information System in the Bioengineering Course
2006/2013 Computer Science in the Biotechnology Course
2009/2014 Medical Informatics in the Biomedical Engineering Course
2012 – Health Information System in the Bioengineering Course
2010 – Informatics in Specialization School of: Clinical Oncology, Cosmetic Surgery, General Surgery, Gastroenterology, Infective Diseases, Pathological Anatomy.

RESEARCH PROJECTS

Funded by European Union

    III Framework
-    EPIC (European Prototype for Integrated Care) – AIM programme
    IV Framework
-    Bioartificial Organs and Tissues - Biomed programme

- CONQUEST (Clinical Oncology Network for Quality in European Standards of Treatment) - Telematics Applications, cluster AC:TION programme
- ECOLE/GRIP - Telematics Applications, cluster AC:TION programme
- Advanced technology in image analysis for telemedicine - LEONARDO programme

V Framework

- BITES (Biomechanical Interactions in Tissue Engineering and Surgical Repair) - Quality of Life programme
- Tissue Engineered Nerve Repair Devices: Development of European Medical Implantable Devices and Research Training Focus - Quality of Life programme
- BIOFILTERS - Exploratory Awards programme
- Plants in European masterpieces - Culture 2000 programme
- ADHESTOP (Biocompatible surfaces to minimise medical device associated infections) - Growth programme
- ASIARESIST (Hazard analysis of Antimicrobial Resistance associated with Asian Aquacultural Environments) - INCODEV programme

VI Framework

- TASNANO (Tools and technologies for the analysis and synthesis of nanostructures) - Priority 3 - Nanotechnology and Nanosciences, Knowledge-based Multifunctional Materials, New Production Processes and Devices.
- CARDIOWORKBENCH (Drug design for cardiovascular diseases: integration of in silico and in vitro analysis) –LIFESCIHEALTH programme
- TRANSFOG (TRANSslational and Functional Onco-Genomics) –Life Sciences, Genomics and Biotechnology For Health programme
- EUROWORKSAFE (European semantic portal on occupational cancer risks and prevention) – eTEN programme

VII Framework

- EATRIS (The European Advanced Translational Research Infrastructure in Medicine) – BMS-ESFRI programme.
- CHIRON (Cyclic and person-centric Health management) –ARTEMIS programme
- TRAIN (Training through Research Application Italian iNitiative) COFUND programme
- CaLiRes (Côte D'Azur Liguria Reseau) – Programma Alcotra

Funded by national bodies

- National Information System on Cancer – Program 1 (funded by High Institute of Health)
- Information systems and parallel computation (finalized project by CNR)
- CNR funded regular projects
- MURST funded projects (60% and 40%)

Funded by local bodies

- Validation project for the localization of the results of the EPIC project, funded by the Savona Town Council
- Feasibility study for the identification of water bacteria, funded by the Liguria scientific and technology park

- Feasibility study for a decision support system on the melanoma diagnosis by spectral imaging techniques, funded by the Liguria scientific and technology park
- Integrated and innovative technologies for the energy management and the management of micro-generation also by renewable sources for the energetic preservation in industrial and civil settings, funded by the Liguria scientific and technology park
- Development of an HL7-CDA R2 for data laboratory data sharing (SILAM)
- Development of a system for the dematerialization of ticket restaurant
- Development of an automatic system for tagging radiological referrals (SIR3)

Publications: more than 60 papers in international peer-review journals and contributions on books and on national and international congresses, for a total of more than 350 titles.

Affiliation Societies:
- Associate Editor of IEEE Transactions of Biomedical Engineering
- Member of HL7 Italy Board, Education Responsible.
- Member of Clinical and Laboratory Standards Institute, Aquaculture Working Group
- Member of IEEE and of IEEE Engineering in Medicine and Biology Society
- Member of Editorial Board of International Journal of Biomedical Sciences
- Member of Italian Association of Medical Informatics (AIIM)
- Member of the Board of the Ligurian Society for Regional History
- Member of the Friuli Philological Society
- Member of the Scientific Board of the Foundation for Psychotherapy and Building Culture
- President of "Essere Famiglia" Association

Scientific Activity
Since 1999 prof. Mauro Giacomini is responsible, in connection with prof. Carmelina Ruggiero, of the MEDINFO laboratory within DIST. Main activities of MEDINFO laboratory are: bio-system modelling, decision support systems for diagnosis, molecular, cellular and tissue engineering.

Specifically his research interests include: data base, medical informatics, biotechnology, biological system studies with modelling methods, signal analysis.
As regards information systems and databases, main themes of his last year research, he has developed on-line and off-line data bases for many projects funded by European Union. Within BIOFILTERS project he has developed a data base for the collection of literature data on nitrites and nitrates degrading bacteria, to be use in aquaculture implants. Within PLANTS project he has developed a multi language data base for the collection of artistic and botanical information useful for the identification of plants represented in artistic masterpieces. Within ADHESTOP project he has developed an on-line database for the collection of experimental results on the anti-adhesive properties of innovative biomaterials in order to prevent bio-film formation on catheters. Within ASIARESIST project he has developed an on-line database for the collection of experimental results on the antibiotic resistance in bacteria collected within aquaculture environments. Similar activities is being developed within the on going projects: TASNANO, CARDIOWORKBENCH, TRANSFOG and EUROWORKSAFE.

As regards medical informatics, he has worked on knowledge based systems in medicine, on the development of medical databases (specifically to monitor the follow up of persistent diseases in gastroenterology and virology), on telemedicine and on technologies for tele-home-care. Specifically in the last years he is working on a data exchange system between a microbiology laboratory and clinical wards (included economic summaries). All these works deal with clinical standards. Specifically within CARDIOWORKBENCH he is developing and localizing the clinical genomics domain to export in a standardized interface.

His work on biological systems is centred on the application of modelling techniques (both quantitatively and quantitatively). Specifically he has developed applications for the study of glucose metabolism, interaction between HIV and human cells, and ordered retinoic mosaic formation.

His activity within biotechnology was on the determination of protein structure, with special reference to NMR spectroscopy supported by the use of Artificial Neural Network (ANN tools). Another field was the developing of tools to enhance virology laboratory assays. He has also applied ANN for the identification of environmental bacteria.