

## CURRICULUM VITAE

**Paolo Giribona, Dr. Eng.**

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**Date of birth:** 23 March 1955**Nationality:** Italian**Mother tongue:** Italian**Education:**

1974 Diploma from Scientific High School of Trieste, Italy (grade 60/60)

1981 Degree in Electrical Engineering from the University of Trieste, Italy (grade 110/110)

**Language skills:**

Language	Reading	Speaking	Writing
English	1	2	2
French	1	3	3
Spanish	1	3	4
(1 - excellent; 5 - basic)			

**Professional history:**

1981 - 1983 Junior Researcher, Hospitals of Trieste, National Research Project on Medical Informatics

1983 - 1984 Senior Researcher, Dept. of Clinical Engineering, Trieste Hospitals Administration

1984 - 1992 Clinical Engineer at Dept. of Clinical Engineering, Trieste Hospitals Administration

1986 - 1992 Technical Director, CIVAB - Centre for Evaluation of Medical Technology, Area Science Park, Trieste, Italy

1993 - 1998 Director, CRSTBS - Centre for Research on Health Technology, Area Science Park, Trieste, Italy

1994 - 1998 Deputy Director, Ital-TBS Clinical Engineering Services, Trieste, Italy

1998 - 1999 Director, Project "HIS - Hospital Information System", Hospital "S.F. Neri", Rome, Italy

2001 - 2010 Scientific Director, Biomedical Technology Consulting GmbH, Trieste, Italy

2003 - 2010 Co-CEO, MEDarchiver GmbH - Health IT Systems, Trieste, Italy

2006 - 2010 R&amp;D Director, Health Robotics GmbH, Bolzano, Italy

2012 - 2014 R&amp;D Director, IIARG SA - Intl. Institutes for Advanced Reproduction &amp; Genetics, Lugano, Switzerland

2011 - today R&amp;D Senior Consultant, Mathitech Engineering Group, Sezana, Slovenia

2016 - today Vice President, Biovalley Investments S.p.A., Trieste, Italy

2016 - today President and CEO, Connected Life S.r.l., Trieste, Italy

**Present activity:**

- Freelance medical and scientific equipment consultant. Main activity fields: (i) development of investment plans for biomedical equipment, (ii) development and revision of technical specifications for equipment procurement, (iii) development of strategies for health technology maintenance and management, (iv) biomedical R&D projects coordination and management.
- STC, Medical Equipment Procurement Specialist, The World Bank, Washington D.C., U.S.A.

**Other offices held:**1986 - 1991 Italian Ministry of Foreign Affairs: Consultant, Cooperation Projects in Developing Countries (South and Central America)1989 - 1992 E.C. Programme COMAC-BME "ISCAMI": Member of Management Group

1990 President, Organizing Committee of "EuroPACS 90 - International Meeting on Picture Archiving and Communication Systems", Trieste, Italy - 1990

1993 - 1994 E.C. Project "Assessment of Information Technology in Medicine (ATIM)": Member of Management Groupsince 1996 E.C. Project "BEAM - Health Telematics": Coordinator, Project Line "Medical Equipment Management System"1996 World Health Organization: short term technical consultant (Central Europe)

- 1996 - 1998     Italian Ministry of Health: Director of Operations, National Project “Observatory of Biomedical Technology”
- 2008 - 2009     E.C. Project “Safechemo – Safe management of cancer therapies”: Member of Management Group

### **Didactic activities:**

- 1982 - 1996     Lecturer, School for Diagnostic Ultrasound, University of Trieste, Italy
- 1991 - 1999     Contract Professor, Postgraduate School of Clinical Engineering, University of Trieste, Italy
- 1990 - today    Contract Professor, Postgraduate School of Radiology, University of Trieste, Italy

### **Publications:**

More than 60 (on Italian and international scientific journals)

### **References:**

- Health Research Institute “Centro Ricerche Oncologiche”, Aviano, Pordenone
- Health Research Institute “B. Garofolo”, Trieste
- Health Research Institute “Casa Sollievo della Sofferenza”, S.G. Rotondo, Foggia
- Law Court of Parma
- Regional Hospital Administration Medio Friuli, Udine
- Regional Hospital Administration Alto Friuli, Tolmezzo, Udine
- Regional Hospital Administration Basso Friuli, Palmanova, Udine
- University Hospital of Catania
- Regional Hospital Administration Ragusa
- San Giovanni Hospital, Rome
- Regional Hospital Administration Aosta
- Regional Hospital Administration Pescara
- Regional Hospital Administration Padua
- Regional Hospital Administration Verona
- Regional Health Authority, Province of Bolzano
- Regional Hospital Administration Empoli
- Hospital S. Filippo Neri, Rome
- Regional Hospital Administration, Civitavecchia, Rome
- Ital-TBS S.p.A., Trieste
- CRSTBS – Research Centre for Health Technology, Trieste
- CISP, Rome
- Ministry of Foreign Affairs, Dept. for Development Countries Cooperation, Rome
- Regional Health Authority of Friuli Venezia Giulia Region, Trieste
- AREA Science Park, Trieste
- CONSIP, Rome (national procurement of diagnostic imaging equipment)
- ASTALDI S.p.A.:
  - design of new Hospital of Mestre, Venice, Italy
  - preliminary design of the new Hospital of Treviso, Italy
  - preliminary design of the new Hospital of Antofagasta, Chile
- V.S.F.P. S.p.A.:
  - new Hospital of Mestre, Venice, Italy (technical review of the HIS and IT infrastructure)
- The World Bank, Washington D.C., U.S.A.

## Patents:

Author of the following patents in the field of biomedical technology:

### Italian patents

- 0001316152 *Method and machine for the preparation and distribution of cytotoxic drugs*
- 0001367887 *Method and machine for the manipulation of toxic substances*
- 0001370806 *Device for the manipulation of toxic substances*
- 0001404628 *Machine for the preparation of pharmaceutical products*
- 0001404630 *Machine for the preparation of pharmaceutical products*
- 0001404631 *Method and device for syringe actuation*
- 0001406124 *Assembly for screwing plugs onto syringes*
- 0001406125 *Apparatus for the removal of needles of syringes*
- 0001408624 *Module, machine and method for radio-pharmaceuticals synthesis*
- 0001408625 *Method and machine for radio-pharmaceuticals synthesis*
- 0001411516 *Machine and method for the production of culture media*
- 0001411517 *Method and machine for the production of culture media*

### European patents

- EP2094174B1 *Method and machine for manipulating toxic substances*
- EP2054145B1 *Device for the preparation of pharmaceutical products*
- EP2502610B1 *Method for the preparation of pharmaceutical products*
- EP2502669B1 *Machine for the preparation of pharmaceutical products*
- EP2502670B1 *Machine for the preparation of pharmaceutical products*
- EP2511183A1 *Syringe actuating method and assembly*
- EP2537547A1 *An apparatus for the removal of needles of syringes*
- EP2537764A1 *Screwing Assembly for Screwing Closing Plugs onto Syringes*

### OHIM Registered Designs

- 002018523-0001 *Machine for the preparation of growing media*

### US patents

- US12/0048424 *Method and Machine for the Preparation of Pharmaceutical Products*
- US13/0145725 *Screwing Assembly for Screwing Closing Plugs onto Syringes*
- US13/0150804 *Apparatus for the Removal of Needles of Syringes*
- US8297320 *Machine for the preparation of pharmaceutical products*
- US8404492 *Method and machine for manipulating toxic substances*
- US8499919 *Machine for the production of pharmaceutical products*
- US8539989 *Method for the production of pharmaceutical products*
- US8632738 *Syringe actuating method and assembly*
- US8794276 *Method and machine for the preparation of pharmaceutical products*
- US8800608 *Machine for the preparation of pharmaceutical products*
- US8865070 *Machine for the production of pharmaceutical products*
- US8905086 *Machine for the preparation of pharmaceutical products*

### International patents

- WO2008047389 *Device for the disposal of toxic wastes*
- WO2008047390 *Dosing device*
- WO2008012596 *Machine for the preparation of pharmaceutical products*
- WO2008038311 *Mechanical stirrer*
- WO2008062285 *Method and machine for manipulating toxic substances*
- WO2008062485 *Device for detecting elongated bodies*

## Prizes:

- Area Science Park Trieste, Italy: 2008 - 3L3T Innovation Award
- Area Science Park Trieste, Italy: 2010 – Special Mention for Innovative Products Development
- Festival of Cities 2012, Vicenza, Italy: Prize “Builder of Ideas 2012”
- The World Bank, 2014, Washington DC, USA, Prize “ECA VPU Team Award”
- Innovation Factory - Area Science Park: "2015 I.F. Challenge" - 1st place (project "Internet of Things")

## Most important publications:

W.Ukovich, D.Bravar, P.Giribona, et al.:

"Trieste PACS Project: a Functional Assessment"  
Abstracts 7th EuroPACS Conference, 1989, p. 25

D.Bravar, R.Catalano, P.Giribona, C.Giuricin:

"Clinical Engineering Department in Hospital"  
Proceedings of the V Mediterranean Conference on Medical and Biological Engineering, 1989, pp.86-89

D.Bravar, P.Giribona:

"Clinical Engineering Development in Italy"  
Proceedings of the World Congress on medical Physics and Biomedical Engineering, 1991, Vol.1, p. 509

P.Giribona, D.Bravar, et al.:

"PACS and Related Research in Italy"  
Proceedings of the NATO Advanced Study Institute on Picture Archiving and Communication Systems (PACS) in Medicine, 1990, pp. 283-288

D.Boullier, D. de Certaines, M.Del Vecchio, P.Giribona, D.Bravar:

"PACS Technology Assessment on Pilot Sites"  
Commission of European Communities - AIM Project: A-1030, Workpackage: 1040, 1990

W.Ukovich, L.Dalla Palma, P.Giribona, et al.:

"Practical Experience with PACS: Benefits and Pitfalls"  
Proceedings SPIE, Medical Imaging IV: PACS System Design and Evaluation, 1990, vol.1234, pp. 34-43

P.Giribona, D.Bravar, et al.:

"A Global Project for the Assessment of a PACS System"  
Proceedings of the Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 1989, Vol.11, pp.789-790

W.Ukovich, D.Bravar, P.Giribona, et al.:

"An Experimental Evaluation of the Impact of a PAC System on the Operations of a Radiology Department",  
In: H.U.Lemke, M.L.Rhodes, C.C.Jaffe e Coll. (eds.): Computer Assisted Radiology -Proceedings of the International Symposium CAR'89; Springer Verlag, 1989 pp. 537-540

L.Dalla Palma, W.Ukovich, P.Giribona et al.:

"The Trieste PACS Project: One Year Experience"  
Proceedings of the 6th Radiological Symposium, 1989

W.Ukovich, L.Dalla Palma, P.Giribona, et al.:

"Justifying PACS: General Considerations on the Base of the Trieste Experience"  
Proceedings of International Conference on HU-PACS, 1989

L.Dalla Palma, W.Ukovich, P.Giribona, et al.:

"Sistema PACS a Progetto Modulare. Esperienza Operativa Preliminare I Parte"  
La Radiologia Medica, 1990, vol 80, pp. 9-17

L.Dalla Palma, W.Ukovich, P.Giribona, et al.:

"Sistema PACS a Progetto Modulare. Esperienza Operativa Preliminare II Parte"  
La Radiologia Medica, 1990, vol 80, pp. 18-23

W.Ukovich, P.Giribona:

"The Trieste Project: PACS and Beyond"

Abstracts of the II International Conference on IMAGE MANAGEMENT AND COMMUNICATION in Patient Care: new Technology for Better Patient Care, 1991, pp. 78

P.Giribona, D.Bravar et al.:

"The Trieste PACS Project"

European Seminars on Diagnostic Imaging 1990: Course on Digital Radiology and PACS Technology, 1990, vol.3, pp. 27-34

W.Ukovich, D. Bravar, P.Giribona, et al.:

"Trieste PACS Project: a Functional Assessment"

Med.Inform., 1990, vol.15 n.1, p.31-37

P.Giribona:

"Principles for PACS Evaluation"

ISCAMI 1: Integrated System for the Management and Manipulation of Medical Images, Springer Verlag, 1991, pp. 16-23

I.Pinto, S.Polvi, P.Giribona, T.Dell'Aquila:

"Power Spectrum Analysis of MRI Noise"

Physica Medica, 1990, Vol. VI, N. 3-4, pp. 227-229

D.Rustja, P.Giribona, et al.:

"Utilizzo di un Oggetto Test per l'Analisi dell'Indice di Pulsatilita' in Flussimetria Doppler"

Ultrasonica, Anno VI- n. 3, 1991, pp. 130-134

D.Bravar, P.Giribona:

"Clinical Engineering Development in Italy"

Proceedings of the World Congress on medical Physics and Biomedical Engineering, 1991, Vol.1, p. 509

P.Giribona:

"Principi ed Apparecchiature"

Abstracts II Corso Nazionale di Aggiornamento Medicina Perinatale, 1992, pp. 41-42

P.Giribona, D.Bravar, F.Stacul, W.Ukovich:

"PACS Experiences in Trieste"

International Journal of Bio-Medical Computing, 1992, vol. 30, No. 3,4, pp. 285-293

F. Stacul, P. Giribona, et al.:

"Sistemi per gestione ed archiviazione di immagini digitali"

La Radiologia Medica, n. 84 (suppl. 1), 1992, pp. 270-276

D.Bravar, S.Fonda, P.Giribona:

"Activities of the Centre for Information and Evaluation of Biomedical Equipment of Trieste"

Proceedings of the VI Mediterranean Conference on Medical and Biological Engineering, 1992; Vol. I pp. 561-564

A.Buizza, T.Dell'Aquila, P.Giribona, C.Spagno:

"An Experimental Set-Up for Measuring the Output of Extra-Corporeal Shock Wave Lithotripters"

Proceedings of the VI Mediterranean Conference on Medical and Biological Engineering, 1992; Vol. I pp. 565-568

A. Buizza, T. Dell'Aquila, P. Giribona, C. Spagno:

"Measurement of the Output of Commercial Extra-Corporeal Shock Wave Lithotripters for Kidney Stones"  
Proceedings of the VI Mediterranean Conference on Medical and Biological Engineering, 1992; Vol. I pp. 605-608

A. Buizza, T. Dell'Aquila, P. Giribona, C. Spagno:

"Il litotritore extracorporeo ad onda d'urto: aspetti costruttivi e valutazione tecnica"  
L'Elettrotecnica, vol. LXXIX, n. 12, dicembre 1992, pp. 1195-1204

A. Buizza, T. Dell'Aquila, P. Giribona, C. Spagno:

"An example of technical evaluation of medical instrumentation: development of a test protocol for Extra-Corporeal Shock Wave Lithotripters (ESWL)"  
Proceedings of the IFMBE workshop "Development, Assessment and Maintenance of Medical Instrumentation", 1993; pp. 80-83

C. Lamberti, L. Carota, P. Giribona et al.:

"Development of a European medical equipment management system"  
Proceedings of the IFMBE workshop "Development, Assessment and Maintenance of Medical Instrumentation", 1993; pp. 137-142

P. Giribona:

"Collegamenti con RIS e HIS: problematiche di accesso"  
Proceedings of "Radiologia Digitale e PACS: Realtà italiane e progetti", Istituto Nazionale per lo Studio e la Cura dei Tumori, seminar n. 54, Milano, 15.10.1993

D. Bravar, S. Fonda, P. Giribona:

"Il progetto ACMAGEST del C.N.R. ed il progetto CIVAB dell'Area di Ricerca di Trieste: metodologie e strumenti di gestione delle tecnologie biomediche"  
in FORUM Valutazione - Documenti, n. 5, maggio 1993 - Ed. F. Angeli, Milano

S. Fonda, D. Bravar, P. Giribona:

"Nuovi compiti per un servizio tecnologico avanzato nella Sanità. L'esperienza del CIVAB"  
Proceedings of A.E.I., Associazione Elettrotecnica Italiana, Ancona 3-6 ottobre 1993

F. Stacul, P. Giribona, R. Cuttin Zernich e Coll.:

"Un sistema PACS nella realtà clinica: il progetto di Trieste"  
La Radiologia Medica, n. 87: 822-832, 1994. Edizioni Minerva Medica - Torino

P. Giribona, F. de Wet, N. Carbi:

"How to resist the marketing pressure: Medical Equipment"  
The Kangaroo, Bibliographic Archives for Maternal and Child Health, n. 1, July 1995, pp. 65-70, ISSN 1122-8474

Diminich, M., Inchingolo, P., Martinolli, N., Dalla Palma, L., Giribona, P., Pozzi, R. & Stacul, F.

"ARIS: an Autonomous Remote Image Station Offering Both Local and Remote IMACS/RIS Resources in an Open Environment"  
In Proceed. 3rd European Conf. Engineering and Medicine, p. 241, 1995.

P. Giribona, M. Iacono, C. Giuricin e Coll.:

"A Regional Approach for the Management of Medical Technology in Italy: the Observatory of the Friuli Venezia Giulia Region"  
Proceedings of the International Conference on Clinical Engineering, Merano 20-21 October 1995, pp.199-210

A. Cortese, F. Fioravanti, M. Iacono, P. Giribona:

“Clinical Chemistry Lab Improvement Using the Italian Data Bank of Biomedical Technology”

Biochimica Clinica, Suppl. 1/5-6, vol 20, 1996

P. Giribona, S. Targa, D. Rustja e Coll.:

“Physical principles of ultrasounds and echocardiographic instrumentation”

in: G.L. Nicolosi, Trattato di Ecocardiografia Clinica, Cap. 2, pp. 53-100, 1999 Piccin Ed., ISBN 88-299-1495-9

P. Giribona:

“CytoCare: fully automated cytostatic compounding”

in: Abstracts of 4<sup>th</sup> European GERPAC Conference – Hyères, France, 4-6 October 2006, p.14

A.Tavella, P. Giribona, C. Dalvit

“Informatica e tecnologia in oncologia: l’esperienza di Bolzano”

in: Abstracts of SIFO Conference “Rischio clinico e terapie farmacologiche: quali tecnologie a confronto”  
Milano, 10 November 2006

F. Burigana, P. Giribona

“Manual muscle test under weak magnetic field in cancer patients”

in: Abstracts of XXIII IATMO Conference: Cancer, Cell Death and Differentiation – Trieste, Italy, 19-21 October 2007, p. 32.

P. Giribona

“Introduction to the SafeChemo project and technology”

13th Congress of the European Association of Hospital Pharmacists EAHP, Maastricht , The Netherlands, 27 – 29 February 2008

P. Giribona

“Automation, Robots and Vision in the Pharmaceutical Sector: Opportunities of Development”

European Factory Automation Committee EFAC, 6th Assembly Technology Conference

Davos, Switzerland, January 21-22, 2011