

Elena Giovanna Bignami (born in Milan, March 14th 1975)
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Institution/position title

Full Professor Anesthesiology, Critical Care and Pain Medicine Division, Department of Medicine and Surgery, University of Parma, Parma, Italy.

Director of Postgraduate Anesthesia and Intensive Care School. Department of Medicine and Surgery, University of Parma.

Chief of 2 Anesthesia and Intensive Care Unit- Parma

Italian Society of Anesthesia Analgesia Resuscitation and Intensive Care (SIAARTI)
President 2025-2027

Education

2004: Anaesthesiology and Intensive Care Specialist, Diploma with 70/70 cum laude, University "Vita-Salute San Raffaele", HSR (advisor Prof. G. Torri);
2001: Registered Medical Doctor, Milan, 24.09.2001. n° 1354;
2000: M.D., University of Milan, Italy, 110/110 cum laude.
2000-present: Clinical courses in Emergency Medicine, Intensive Care, Echocardiography, Cardiopulmonary by-pass and Fibrobronchoscopy for anaesthesiologists. She also attended many courses in clinical research, in particular for multicentre randomized controlled trials; "Statistics in medicine"; "Study Coordinator"; and "Organization of investigators meetings".

Positions/past Experience

2003-31/12/2017: Senior Anaesthesiologist in the Department of Cardio- Thoracic-Vascular Anaesthesiology, Intensive Care and Emergency at San Raffaele Scientific Institute, Italy;
2007: Rescue Helicopter Doctor;
2006: Europe Assistance Consultant Doctor for care and transport of critically ill expatriates.

Scientific societies

2012-present: member of ESA (European Society of Anaesthesiology);
2012-present: member of A.A.R.O.I. - EM.A.C. – "Associazione Anestesisti Rianimatori Ospedalieri Italiani - Emergenza Area Critica";
2009-present: member of the executive board of I.T.A.C.T.A. (Italian Association of Cardiothoracic Anaesthesiologists) as "Coordinatore degli studi scientifici e gruppi di interesse under 40";
2006- present: member of ITACTA (Italian Association of Cardiothoracic Anesthesiologist) and EACTA (European Association of Cardiothoracic Anesthesiologist);
2004- present: study staff member of SIAARTI (Italian Society of Anesthesiology, Analgesia and Intensive Care);
2002- present: member of SIAARTI (Italian Society of Anesthesiology, Analgesia and Intensive Care).

Teaching activity

March 2017: attainment of the National Scientific Qualification of "Full Professor" for 06/L1 Anaesthesiology Area (MED41);

January 2014: attainment of the National Scientific Qualification of "Associate Professor" for 06/L1 Anaesthesiology Area (MED41);

2011-present: Yearly appointed Professor of "Introduction to the methodology for clinical research" and "Principles of Anaesthesia" at "Vita-Salute University", San Raffaele Hospital, Milan at the Faculty of Medicine and Medical and Pharmaceutical Biotechnology;

2009-present: Assistant Professor of Anaesthesiology and Intensive Care of Post-Graduate Medical School of "Vita-Salute University", San Raffaele Hospital, Milan;

2008-present: co-director for many theses in medicine (subjects related to anaesthesia and intensive care at "Vita-Salute University", San Raffaele Hospital, Milan);

2008: Assistant Professor for the HSR Master in "Cardio-thoracic-vascular Intensive Care", for graduate and post-graduate seminars for "Vita-Salute University", San Raffaele Hospital, for the theoretical-practical course "Cardioprotection by administration of volatile anaesthetics in cardiac surgery.

Conference activities

2008-present: member of Scientific Committee, member of Local Faculty and Discussant in National and international conferences. Invited speaker in national and international congresses; also invited in national and international congresses to offer presentations of many abstracts and oral presentations. In particular for topic about: perioperative medicine and Artificial intelligence, wearable devices, telemedicine and metaverse-digital twins.

Awards and Honors

2025: PI "PUBLIC CALL FOR THE SELECTION OF PROJECT PROPOSALS AIMED AT GRANTING FUNDING FOR INDUSTRIAL RESEARCH, EXPERIMENTAL DEVELOPMENT, AND FEASIBILITY STUDIES CONDUCTED BY COMPANIES, CONSISTENT WITH THE PNRR PROGRAM MISSION 4 – COMPONENT 2, INVESTMENT LINE 1.3, FINANCED BY THE EUROPEAN UNION – NEXTGENERATIONEU; FUTURE ARTIFICIAL INTELLIGENCE RESEARCH PROJECT – FAIR" (CUP I53C22001380006, PE0000013).

Project: "Scheduling with Human-centered Innovation Facilitating Theater Optimization with AI", SHIFT-AI.

3/2024: PI FAITH - PNRR M4C2 I 1.3 FAIR Extended Partnership

Cascade Call Spoke 8, part of the FAIR (Future Artificial Intelligence) Project, within Objective #9: AI Act analysis, bias, and applications in healthcare. Funding with assigned Unique Project Code (CUP) – CUP J33C22002830006.

2024: CO-PI (local PI Parma): “

Severe Infections and Sepsis clinical NEtwork for identification of clinical and diagnostic Markers, immunological monitoring and “Target and tailored” therapies for adults, children and patients admitted to intensive care units”-

SIS – NET (project id S4-01.P0001) CALL ID: COC-1-2023-ISS-01

2023: With leadership roles in Regional Grant at CO-PI “An explainable intelligent tool for postoperative Acute Kidney Injury - ISAKI (Intelligent Score of AKI)”]

2022: Grant PRIN (Projects of Significant National Interest) at CO-PI “Prediction of Non-invasive ventilation (NIV) failure based on circulating biomarkers, Electrical Impedance Tomography and advanced respiratory mechanics: a multi-source pathophysiological study on acute respiratory failure using artificial intelligence” PRIN]

2019: Regional Grant at PI **“MACHINE LEARNING E BIG DATA IN MEDICINA PERIOPERATORIA (MADA-MED, MACHine learning e big DATA in MEDicina perioperatoria)**
2019: National Grant of Italian Society of Nephrology (SIN) at CO-PI **“Endogenous Ouabain as predictor of preoperative Acute Kidney Injury**

2015: Grant at PI “ESA Research Project Grant in 2016: “VENTilation during CardioPulmonary Bypass (CPBVENT 2014) for cardiac surgery: a multicenter randomized controlled trial” (N° clinical trials NCT 02090205)

2009: Grant at PI “Ricerca Indipendente sui farmaci” by “Agenzia Italiana del Farmaco” (AIFA): “The effect of Isoflurane on myocardial infarction and mortality in cardiac and non-cardiac surgery. A meta-analysis of randomized controlled studies”- code FARM8H88MA;
2009-2006: four grant as CO-Principal Investigator for Italian Ministry of Health (“Bando Ricerca Finalizzata”) and “AIF A” grant (code FARM6H73Z9);

2006: winner “Lab Avant-Garde Prize (“Effect of moderate Hemodilution during extracorporeal circulation on postoperative outcome of cardiac patients”), Anaesthesia and Intensive Care”, Pisa, Italy (Prof. Giunta);

2000- present: co-winner of more than 10 SIAARTI Prize for “best oral communication/poster”.

Expertise in research

Since 2000, I have regularly taken part in the conception, design and execution of monocentric and multicentre randomized controlled trials (mRCT), under Good Clinical Practice (GCP) and I am Principal Investigator of many trials ((see list: www.clinicaltrials.gov).

I have also been conducting meta-analysis studies in numerous topics related to Cardiovascular Anaesthesia and Intensive Care (especially about cardiac and renal protection in cardiac and non-cardiac surgery). At the moment, I am also collaborating in the creation of a network of 30 Italian cardio-surgical centres that participate to multicentre randomized controlled trials (mRCT).

Since 2000, I have attended and still do many courses in clinical research, in particular for “mRCT”; “Statistics in medicine”; “Study coordinator”; and “Organization of investigators meetings”. I have a considerable experience in monitoring of multicentre RCT, having organised numerous investigators meetings in various Italian cardio-surgical centres. And Artificial Intelligence and New technologies.

Clinical activity

All the above experience has been gained in the environment of the San Raffaele Hospital, the Scientific Institute San Raffaele coordinates and carries out research into clinical and molecular medicine with dramatic impact on the National Health Service. It is the largest biomedical science park in Italy. The cardiothoracic and vascular anesthesia and intensive care unit with 14 beds and 1500 cardiac surgical procedures per year is the second biggest centre in Italy and one of the biggest in Europe.

Personal Statement

The clinical and research interest in Anaesthesia and Intensive Care has resulted in about 350 scientific publications and invitations in national and international congresses. Regularly involved in the conception, design and execution of mono-centric and multicentre randomized controlled trials as well as in conducting meta-analysis studies in numerous topics related to Cardiovascular Anaesthesia and Intensive Care and Artificial Intelligence and New technologies.

PubMed indexed publications: 407, **Scopus publications:** 422

H index: 51, **Cited times:** 12384

Parma, July 13, 2026

Elena Giovanna Bignami

