

Giuseppe Buonocore MD**PERSONAL INFORMATION**

Date/Place of birth: March 7, 1951, Amalfi (SA), Italy
 Home phone: (39) 0577-333892 Office phone: (39) 0577-586523 Fax number: (39) 0577-586182
 Current rank: Full Professor of Pediatrics and Neonatology
 Nationality: Italian
 Languages: Italian, English, French
 Family status: married, 2 daughters

STUDIES**Undergraduate training**

Year	School	Title
1969	Liceo-Ginnasio "Matteo Camera", Amalfi (SA)	Graduation
1975	Faculty of Medicine and Surgery, Siena University	Degree in Medicine and Surgery (cum laude)
1975	Faculty of Medicine and Surgery, Siena University	Medical profession
1969-1971	Intern, Institute of Human Anatomy, Faculty of Medicine and Surgery, Siena University, Director: Prof. Leonetto Comparini	
1971-1973	Intern, Institute of Semiotics, Faculty of Medicine and Surgery, Siena University, Director: Prof. Angelo Caniggia	
1973-1974	Intern, Institute of Anatomy and Histopathology, Faculty of Medicine and Surgery, Siena University, Director: Prof. Giorgio Weber	
1974-1975	Intern, Institute of Nervous and Mental Diseases, Faculty of Medicine and Surgery, Siena University, Director: Prof. Cesare Fieschi	

Postgraduate training

Year	School	Title
1978	Pediatrics Clinic, Faculty of Medicine and Surgery, Siena University	Specialist in Pediatrics (cum laude)
1981	Institute of Childhood and neonatal medicine, Faculty of Medicine and Surgery, Parma University	Diploma in Neonatology (cum laude)
1987	Ministry for Health, Hospital Direction, Rome	Pediatrics Department Head Ability
1987	Institute of Anaesthesia and Intensive Care Faculty of Medicine and Surgery, Siena University	Specialist in Anaesthesia and Intensive Care (cum laude)
January /June 1976	Resident in Pediatrics, Institute of Infectious Childhood Diseases, Faculty of Medicine and Surgery, Siena University. Director: Prof. Aldo Rossolini	
1976-1977	Resident in Pediatrics, Institute of Pediatrics, Faculty of Medicine and Surgery, Siena University. Director: Prof. Alberto Fois	
1977-1978	A.I.L. (Associazione Italiana contro le Leucemie) Scholarship at Institute of Pediatrics, Faculty of Medicine and Surgery, Siena University. Director: Prof. Alberto Fois	
1978-1979	Pediatric Assistant, Institute of Puericulture, Siena University, Childhood Endocrine and Metabolic Disorders Section, Director: Prof. Manlio Dettori	
1979-1987	Pediatric Assistant, Neonatology Section, Neonatology Chair, Director: Prof. Rodolfo Bracci	
1979-1990	Chief of Neonatal Hematology Lab, Chair of Neonatology, Siena University	
1981-1987	Study period at Service de Médecine Néonatale de l'Hopital Port-Royal, Université René Descartes, Paris V, Director: Prof. Jean Pierre Relier	
1987-1994	Pediatrician Second-in-charge of Neonatal Unit, full time, Local Health Unit 30 Siena Area and Chair of Neonatology, Siena University, director Prof. Rodolfo Bracci	
1990-1997	Doctor in charge of Hematology Lab, Institute of Preventive Pediatrics and Neonatology, Siena University	

1994-2001	Associate Professor of Pediatrics, Faculty of Medicine, University of Siena, Italy
April 6/May 1994	Visiting Scholar, Department of Physiology, University of Pennsylvania, School of Medicine, Chairman: Prof. Paul De Weer
1994-April 2001	Lecturer in Pediatrics (raggruppamento F19A) Faculty of Medicine and Surgery, Siena University
1998- April 1999	Doctor in charge of Paraintensive Neonatal Therapy, Institute of Preventive Pediatrics and Neonatology, Siena University
April 1999/October 2001	Director of Neonatal Pathology Unit, Siena Hospital

Current position

Since April 2001	Lecturer in Pediatrics (MED38) Faculty of Medicine and Surgery, Siena University
Since April 2001	Full Professor of Pediatrics, Medical Faculty, University of Siena, Italy
Since November 2001	Director of Pediatrics II-Neonatology Unit, University Polyclinic, Siena Hospital

Academic Year	School - Course	Subject
1977-78	Clinical Pediatrics course, Faculty of Medicine and Surgery, Siena University	Practical training, 4th year students
1983-84	School of Specialization in Obstetrics, Siena University	Neonatology
since 1983	Courses I and II, School of Obstetrics, Siena University	Neonatology
1985-86 1987-88 1989-92 1993-94	Professional Nursing School, Local Health Unit 30 Siena Area	Puericulture and pediatrics
1990-91	1 st year, School of Infant Care, Local Health Unit 30 Siena Area	General pediatric pathology and semiotics
1991-92	2 nd year, School of Infant Care, Local Health Unit 30 Siena Area	1) Hematology-immunology 2) Neonatology
1992-93	3 rd year, School of Infant Care, Local Health Unit 30 Siena Area	1) Respiratory physiopathology 2) Genetics
1990-2006	3 rd year, School of Specialization in Pediatrics (Neonatology), Siena University	Neonatal therapy
1991-2006	5 th year, School of Specialization in Pediatrics (Neonatology), Siena University	1) Pediatric and neonatal hematology
1991-2002	3 rd year, School of Specialization in Biochemistry and Clinical Chemistry (Diagnostics), Siena University	Embryo and fetal biochemistry
1992-2002	4 th year, School of Specialization in Biochemistry and Clinical Chemistry (Diagnostics), Siena University	Prenatal biochemical and cytogenetic diagnostics
from 1994 to date	Pediatrics Course, Medicine and Surgery degree course, Siena University	General and specialist pediatrics
from 1995 to date	2nd year, Mother-infant medicine course, Nursing Science Diploma course, Siena University	Pediatrics and Neonatology
from 1995 to date	2nd year, Mother-infant medicine course, Obstetrics Diploma course, Siena	Puericulture and Pediatrics
1995 -2003	2nd year, Mother-infant medicine course, Nursing Diploma course, Arezzo	Puericulture and Pediatrics
1995 -2006	2nd year, Mother-infant medicine course, Nursing Diploma course, Grosseto	Puericulture and Pediatrics
1997-1998	General and specialist physiopathology course, Orthoptics Diploma course, Siena University	General and specialist pediatrics
from 2003 to date	5 th year School of Specialization in Pediatric Surgery, Siena University	Neonatology, Prenatal Diagnostics and Malformations
from 2003 to date	2 nd year School of Specialization in Pediatric Surgery, Siena University	General Specialistic Pediatrics: Neonatology
from 2007 to date	2 nd year School of Specialization in Pediatrics, Siena University	1) Neonatology 2) Neonatology 2 3) Pediatrics
from 2007 to date	4 th year School of Specialization in Pediatrics, Siena University	Feeding and Dietology

from 2007 to date	Pediatrics Course AFP, Medicine and Surgery Specialistic degree course, Siena University	Pediatrics
from 2009 to date	1 st year Medical Biotechnology degree course.	Neonatology
from 2012 to date	3 th year School of Specialization in Anesthesia Resuscitation and Intensive Therapy	
from 2012 to date	School of Specialization in Endocrinology and Metabolism Diseases	

University directorships, memberships etc.

Director of School of specialization in Neonatology and Pediatrics
Coordinator of interactive teaching, Pediatrics course, degree course in Medicine and Surgery
Board member of of School of specialization in Pediatrics
Teaching College Member of Research Doctorate in Growth Factors, Siena
Teaching College Member of Research Doctorate in Physiopathology and Cell Pathology, Siena

Supervision of diploma, undergraduate and postgraduate theses

Dr. Buonocore has supervised more than 30 MD/PhD students (1994/2012) in Medicine and Surgery, Pediatrics, Diagnostic Biochemistry and research doctorate topics.

Teaching method seminars attended

Workshop “Seminar on Changing Medical Education” Siena March 1997, organized by Profs. Jacques E. Des Marcheés and Bertran J. Dumais, Université de Sherbrooke, Québec, Canada.

Visiting Professor

1994-1999	Visiting Professor for various periods, Division of Neonatal-Perinatal Medicine, Dept. Physiology, University of Pennsylvania, School of Medicine, Chief: Prof. Maria Delivoria-Papadopoulos
May 2000	“The 2000 Donald V. Eitzman Visiting Professor” University of Florida College of Medicine (Guest Lecture: Iron homeostasis, metabolism, and toxicity)
August 2001	Visiting Professor at the Department of Pediatrics, University of Oulu, Finland (Guest Lecture: Mechanisms of oxidative injury in the newborn and strategies for prevention)
November 2002	Visiting Professor at the Department of Pediatrics, College of Medicine, Drexel University, Philadelphia, PA (Guest Lecture: New biomarkers of fetal-neonatal hypoxic stress)
May 2004	Visiting Professor at the Division of Neonatology, College of Physicians & Surgeons, The University Hospitals of Columbia and Cornell, New York, NY (Guest Lecture: New biomarkers of perinatal hypoxic brain damage)
2009	Visiting Professor at Rainbow Babies & Children’s Hospital, University Hospitals Case Medical Center, Case Western Reserve, University school of Medicine, Cleveland, Ohio, USA (Guest Lecture: Pathophysiology of Neonatal Oxygen Injury)
March 2012	Visiting Professor at Taipei Medical University, Taiwan (Guest Lecture: New pharmacological approaches in infants with ipoxic-ischemic encephalopathy)
March 2012	Visiting Professor at Chang Gung Memorial Hospital at Linkou, Taiwan (Guest Lecture: Biomarker of oxidative stress in foetus and newborn)

Research

Coordinator of the following projects:

1. Clinico-experimental investigation of mechanisms of cell damage in the neonatal brain, with special reference to detecting abnormal proteins. International multicentric study with the Department of Physiology and Department of Pediatrics, MCP-Hahnemann School of Medicine, University of Pennsylvania, School of Medicine (Chief: Prof. Maria Delivoria-Papadopoulos)
2. Hypoxic-ischemic brain damage: evaluation of concentrations of intracellular free iron and new chelating molecules. International multidisciplinary study with the Institute of General Pathology, Siena University and Dept. Neonatology, Wilhelmina Children’s Hospital University Medical Center, Utrecht, The Netherlands.
3. Serum concentrations of cytokines in neonates on different dietary regimens - role in food allergy. Italian multicentric study.
4. Clinical significance of erythroblast count at birth as index of perinatal brain damage. Italian multicentric study with neonatal hematology study group of S.I.N.
5. Oxygen and retinopathy of prematurity. Evaluation of tissue lipid peroxidation. Italian multicentric study with Preterm Retinopathy study group of S.I.N.
6. Evaluation of prenatal and perinatal hypoxic-ischemic kidney damage. Italian multicentric study with Neonatal Nephrology study group of S.I.N.

7. Use of antioxidants in the prevention of lung oxidative damage associated with surfactant therapy. In collaboration with General Pathology Institute, Siena University
8. Evaluation of lipoperoxidative risk during feeding with high *LC-PUFA* milk. In collaboration with S. Benedetto del Tronto, Brindisi and Florence hospitals.

Patent of Scientific Inventions

Bellieni CV, Pinto I, Stacchini N, Bagnoli F. Phonoabsorbing panels for neonatal incubators (RM2003U000174) 4 th November 2003

Membership in Organizing Committees

President and Coordinator of network Ricerca Scientifica Europea EURAIBI (EUROPE Against Infant Brain Injury).
Council member of European Society for Pediatric Research (2002-2005)
European Society for Pediatric Research (President in 2005)
Academia Senensis Physiocraticorum (2010-to date)
European Commission Research Expert
Collaborative European Multicenter Study Group for Surfactant Replacement
European Neonatal Brain Club
International Perinatal Collegium
Secretary of neonatal hematology study group of the Società Italiana di Neonatologia (1996-2006)
Council member of Italian Society of Neonatology (Tuscany Region)
Scientific committee member of Journées Franchophone de Recherche en Neonatologie (1995-98)
Regional delegate of Italian Society of Perinatal Medicine (1995-98)
Gerson Lehrman Group's Council of Healthcare Advisors.
Chairman of sector Children Health Medicine (CHM), *World Academy of Biomedical Technologies* (WABT) Board and Administrative Council UNESCO, Paris, (2006).
Chairman of Union of European Neonatal and Perinatal Society (UENPS), Rome 2008
Vicepresident of UENPS (2008-09)
President of Union of UENPS (2010-to date)
Coordinator of the Neonatology Committee of the Italian Society for Paediatric Research (SIRPed) (2012-to date)
Peer reviewer of National Agency for Evaluation of Universities and Research Institutes
Membership in Honorary and Scientific Societies
Società Italiana di Pediatria (S.I.P.)
Società Italiana di Neonatologia (S.I.N.)
Società Italiana di Biologia Sperimentale (S.I.B.S.)
Società Italiana di Medicina Perinatale (S.I.M.P.)
Società Italiana di Endocrinologia e Diabetologia Pediatrica (S.I.E.D.P.)
Gruppo per lo Studio dell'Eritrocita
European Society for Paediatric Research (E.S.P.R.)
European Society for Pediatric Haematology and Immunology (E.S.P.H.I.)
American Pediatric Society and Society for Pediatric Research (APS/SPR).

International Trials

Coordinator of the European scientific network EURAIBI (EUROPE Against Infant Brain Injury) which brings together the experience of the main international neonatology centres. Its task is to favour multicentric studies to lay the foundations for early recognition of factors implicated in brain damage. Its aim is to find new methods of prevention, early diagnosis and therapy of brain damage in high risk newborns.

Recent research grants

2001-2004	Identification of etiopathogenetic factors characteristics of newborn at high risk of brain damage in perinatal period. Clinical and experimental study. Role: Principal Investigator	592 million Italian liras Ministry of University and Scientific Research Cofinance for research projects of national interest
2006-2008	Biomarkers, gene expression and drug modulation during hypoxia-ischemia and infection in animal model and cell culture Role: Principal Investigator	€ 119000 Siena University (PAR)
2007-2010	Neonatal Estimation Of Brain Damage Risk And Identification of Neuroprotectants (NEOBRAIN) Role: Co-Investigator	€ 195120 (EU project - FP6-2005-LIFESCIHEALTH)
2010-2011	Clinical protocol for the early identification of perinatal oxidative stress-induced brain injury and prediction of neurodevelopmental outcome through validation of biomarkers profile and magnetic resonance imaging patterns. Role: Principal Investigator	€ 195.000 GRANT-R-10-81 Fondazione Mariani
2011-2014	Early identification of newborn at high risk of brain injury through a validated biomarkers profile and specific neuro-imaging patterns. A follow up study of clinical and neurodevelopmental outcome in a large cohort study. Role: Principal Investigator	€ 550.000 RF-2009-1499651 Ministero della Salute – Direzione Generale della Ricerca Scientifica e Tecnologica

Editorial boards

"Il Neonato di Basso Peso" H.C.S. Editrice, Milano, 1989.

Proceeding of "3° Corso di Aggiornamento in Neonatologia per l'Italia Centrale", Siena April 21-22, 1990, Tipografia Senese, 1990.

Proceeding of "Congresso Internazionale di Ematologia ed Immunologia Neonatale", Siena April 21-22, 1990, Tipografia Senese, 1990.

The scientific review *'Biology of the Neonate'*.

Ad hoc Reviewer of abstracts for *Journées Francophones de Recherche en Neonatologie*, 1999-2001

Reviewer of International Programme *'Biomedicine and health research BIOMED2'*, 1998.

Co-author of special number of *Seminars in Neonatology* (Volume 3, August 1998) dedicated to 'Free Radical disease in Neonatology' (Guest Editor: Prof. Ola Didrick Saugstad)

Co-author of special number of *Seminars in Neonatology* (2007) dedicated to 'Neuroprotection' (Guest Editor: Prof. Pierre Gressens)

Guest Editor of no. 79/3-4/2001 of Biology of the Neonate on 'The newborn at high risk of brain damage' EURAIBI International Workshop, Siena, April 5-7, 2001

Consulting Editor for *Pediatric Research*, July 2005

Board Editorial "Italian Journal of Paediatrics" from 2007

"Neonatal Pain: Suffering, Pain, and Risk of Brain Damage in the Fetus and Newborn" Springer-Verlag, (Giuseppe Buonocore & Carlo V. Bellieni eds) Italy 2008

Seminars in Fetal and Neonatal Medicine "Oxygen as a Therapeutic Agent" Elsevier, 2010

Board Editorial "NEONATOLOGY: A Practical Approach to Neonatal Diseases" Springer-Verlag, (Giuseppe Buonocore, Rodolfo Bracci & Michel Weindling eds) Italy 2012

Reviewer for Proceeding of Annual Meeting of Pediatric Academic Societies (PAS)

Peer reviewer of National Agency for Evaluation of Universities and Research Institutes (ANVUR)

Scientific Reviewer for Refereed journals

1. Neonatology (formerly Biology of the Neonate)
2. Pediatric Research
3. Acta Paediatrica
4. European Journal of Obstetrics & Gynaecology and Reproductive Biology
5. Italian Journal of Pediatrics

6. Archives of Diseases in Childhood
7. European Journal of Endocrinology
8. Free Radical Biology & Medicine
9. Clinical Chemistry
10. Critical Care Medicine
11. Pediatric Critical Care Medicine
12. European Journal of Neuroscience
13. BMC Pediatrics
14. Current Pediatric Reviews
15. Experimental Brain Research
16. Nutritional Neuroscience
17. Journal of Neuroimmunology
18. Prostaglandins, Leukotrienes & Essential Fatty Acids
19. Clinical Chemistry and Laboratory Medicine
20. Neuroscience Letters
21. Nutrition
22. Journal of Clinical Anesthesia.
23. Anales de Pediatria
24. Early Human Development
25. Journal of Pediatric Gastroenterology & Nutrition
26. Brain & Development
27. Transfusion
28. Journal of Pediatric Infectious Diseases
29. Frontiers in Biosciences
30. The American Journal of Obstetrics & Gynecology
31. The Journal of Maternal-Fetal & Neonatal Medicine
32. Neuropsychiatric Disease and Treatment
33. Fertility & Sterility
34. Brain
35. Neuropediatrics
36. Journal of Pediatrics
37. Ophthalmology
38. Lancet
39. Neurological Science
40. BMC Pediatrics
41. Critical Care Research and Practice
42. BMC Pediatrics
43. Cytokine
44. European Journal of Medical Genetics

Organisatory activities

- "Problemi di assistenza al neonato di peso molto basso", Siena, February 20-21, 1987
- "International Congress on Neonatal Hematology and Immunology", Siena, April 22-24, 1990
- EURAIBI International Workshop on "The Newborn at High Risk of Brain Damage", Siena April, 5-7 2001
- II EURAIBI International Workshop on "Pain and Brain Damage in Fetus and Newborn", Siena 5th -7th June 2003
- I Congresso Nazionale del Gruppo di Lavoro di Ematologia Neonatale, Amalfi December 3-4 2004
- Orphan Europe Academy Course: Who's Teaching Who in Paediatrics? Siena, August 29 and 30, 2005
- ESN Training Course in Neonatal Medicine - August 30 and 31, 2005
- EPEN annual meeting: The European Perinatal Epidemiology Network Siena, August 31, 2005.
- 46th Annual Meeting of European Society for Pediatric Research Siena August 31-September 3, 2005
- 3rd EURAIBI International Workshop on "Pathogenesis and treatment of brain injury" Siena September 3, 2005
- 3rd International Workshop on Neonatology, Cagliari October 27-28, 2006
- 2nd National Congress of Gruppo di Lavoro di Ematologia Neonatale, October 27 Cagliari, 2006
- 4th EURAIBI International Meeting on "Neonatal Brain Injury: Identification and Prevention in the Foetus and Newborn", Siena, April 3-5, 2008.
- 1st International Congress of UENPS, Union of European Neonatal and Perinatal Societies, "Global Neonatology and Perinatology", Roma, November 17-19, 2008
- "Incontri con l'esperto" University of Siena, School of Specialization in Pediatrics 2003/2012
- Chairman of Topic Symposium: "Oxidative Stress in the Fetus and Newborn: Where Are We Now?" at Pediatric Academic Societies' Annual Meeting, Vancouver, BC, Canada, May 1-4, 2010.
- International perinatal collegiums. XXII biennial meeting, Amalfi, June 25-29 2011.
- 2nd International Congress of UENPS Union of European Neonatal and Perinatal Societies Istanbul November 15-17, 2010, Istanbul, Turkey
- 5th International EURAIBI meeting. "Brain injury and neonatal disease: early diagnosis and therapeutic strategies", Siena April 19-21, 2012.
- 3rd International Congress of UENPS, Union of European Neonatal and Perinatal Societies. Global Neonatology & Perinatology. Porto November 14-17, 2012.

Scientific awards

- **The Seventh annual Dr Donald V Eitzman** lectures. May 5, 2000. "Iron homeostasis metabolism and toxicity". University of Florida College of Medicine.
- "**Goccia d'oro 2000**" as President of the Foundation EUROpe Against Infant Brain Injury (EURAIBI) for the efforts and results in the scientific research in the field of Prenatal, Perinatal and Neonatal Brain Damage.

Patent of scientific invention

Belliemi CV, Sisto R, Buonocore G. Machine for automatic assessment of pain in neonates (#RM2005A000110# registered patent on March 11, 2005)

Publications

780 publications, 2 books and 19 book chapters; 229 peer review international science paper and 530 presentations within of International Conferences (250) and in the field of National Meetings (280).

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Prof. Giuseppe Buonocore

