



Professor Carmen Mortellaro MD, DDS.

Full Professor of Stomatological Diseases at the Faculty of Medicine and Surgery “Amedeo Avogadro” University of Eastern Piedmont.

Personal details:

Name: Carmen Mortellaro

Place of Birth: Santo Stefano di Quisquina (AG) Italy,

Nationality: Italian,

Marital Status: Married, three children,

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CURRICULUM VITAE

Carmen Mortellaro gained her Bachelor of Arts degree from Turin University followed by a degree in Medicine and Surgery in 1983 from the same university.

In 1983 she started working as a Clinical Assistant at the Odontostomatological and Maxillofacial Surgery Clinic of the University of Turin where she obtained the Diploma of Specialisation in Odonto-stomatology in 1986 and in Orthognathic Surgery in 1991.

In 1987 she was granted two scholarships and directed a research team in the field of craniofacial growth.

In February 1991 she moved to the University Department of Odontostomatology and Maxillofacial Surgery at the San Luigi Gonzaga Hospital as Medical Director, where she was responsible for clinical practice in the sector of dento-skeletal alterations and craniofacial malformations until 2002.

From November 1997 until 2011 she was responsible for the Oral Physiopathology Unit for paediatric patients, mainly oncologic and syndromic patients and malformation syndromes at the Regina Margherita Children's Hospital of Turin.

In 2002 she became Full Professor of Stomatology at the Faculty of Medicine, Surgery and Health Science of the University of Eastern Piedmont.

From 2002 Full Professor of:

- Stomatognathic apparatus and diseases of the oral cavity (Degree course in Medicine and Surgery)
- Dental Materials
- Orthognathic Surgery
- Paediatric Dentistry
- Oral Surgery
- Stomatological diseases
- Semeiotics of Orofacial Area - School of Specialization in Oral Surgery at the University of Turin (2002 – 2003)
- Anatomy - School of Specialization in Oral Surgery at the University of Turin (2004 – 2008)
- Surgical Exodontia - School of Specialization in Oral Surgery at the University of Turin (2009 – 2011)

Since 1985 member of S.I.D.O. (Italian Society of Orthodontics).

Since 1999 member of S.U.S.O. (National Board of the trade Union for Specialists in Orthodontics).

Since 2000 member of OMCeO (Board of Physicians, Surgeons and Dentists of the province of Turin) on the “Continuing Education and Formative Accreditation process” Commission.

Since 2002 regional representative for the O.C.I. (Italian Catholic Dental Surgeons).

In 2003 full member of the Board of OMCeO (Board of Physicians, Surgeons and Dentists of the province of Turin) on the “Continuing Education and Formative Accreditation process” Commission.

In 2003 Director of S.I.D.O.P. (Italian Society of Presurgical Orthodontics).

Since 2004 President of FEDRA (Research Federation for the study of Congenital Malformations and Related Syndromes).

In 2004 Board Member of SIdCO (Italian Society of Oral Surgery).

In 2004 University representative at the Regional Commission for Bachelor’s Degree with Specialisation.

In 2005 Treasurer for S.I.D.O.P. (Italian Society of Presurgical Orthodontics).

In 2006 President-elect of S.I.D.O.P. (Italian Society of Presurgical Orthodontics).

From 2006 to 2009 member of the “Health Programming and Policy” Commission at the Board of OMCeO (Board of Physicians, Surgeons and Dentists).

From 2006 to 2009 member of the “Health Administration and Institutional Accreditation and Professional Programming Organisation” Commission of the same Board.

2008 President of SIDOP (Italian Society of PreSurgical Orthodontics).

2008 Board Member of SIOCMF (Italian Society of Odonto-stomatology and Maxillofacial Surgery).

2008 President-Elect of SIdCO (Italian Society of Oral Surgery)

From 2009 to 2011 Member of the Commission “Relations with other Boards and Organisations in the Healthcare Sector of OMCeO (Board of Physicians, Surgeons and Dentists).”

From 2009 to 2011 member of the Health Administration and Institutional Accreditation and Professional Programming Organisation Commission of OMCeO (Board of Physicians, Surgeons and Dentists).

From 2009 member of the Commission established by the Ministry of Health for the definition of Guidelines and Clinical Recommendations in the field of dental and maxillofacial surgery.

From 2009 honorary member of the Chirone Academy

From 2010 member of Nedcommunity (Italian association for enhancing, supporting and developing the role of non-executive members of board of directors and supervisory boards).

In 2011 President of SIdCO (Italian Society of Oral Surgery) for the 2012-2013 term.

From 2013 to date Associate Professor at The National Research Council (CNR)

2015 - with membership confirmed until 2020, member SIOCMF (Italian Society of Odonto-Stomatology and Maxillofacial Surgery).

2016 Member COST Action Member - BIONECA - European Cooperation in Science and Technology.

2016 -2017 President of ANTHEC (Academy of Non Transfusional Hemo-Components)

2015 -2019 member of CIC (Italian College of Surgery)

2018/2019 Director of the Master of Advanced Studies in “Blood components and other cells in regenerative medicine”

2018 Member of the INBB Interuniversity Consortium - Rome National Biostructure and Biosystems Institute

2018 -2020 Member of the Commission on "Promotion and appropriateness of health care" established by OMCeO (Board of Physicians, Surgeons and Dentists).”

Awards

Professor Mortellaro has received prizes and career awards from the following:

Piedmont Dentistry Group – 1992

Bosio-Fidas-Olivero-Ribero - Turin – 1996 Research and Assistance award

Dental Day - City of Turin – 1997

Association of Dental Companies – Turin 1999

ATO – Orthodontic Technicians Association – 2000

SERMIG – Ernesto Olivero for Solidarity in Medicine - 2008

FNOMCEO Ethics in Healthcare 2010

TUEOR Edizioni 2017

Invited Lectures

5th European Dentistry Convention – Latina, Italy 25-28 March 1992 “The role of bacteremia in the pathogenesis of infective endocarditis as regards the oral cavity” – “use of osseointegrated implants, clinical aspects and personal experience”

The 11th Congress of the International Association of Dentistry for the Handicapped” – Venice, 26-30 July 1992 “Radiological evaluation in disabled patients”

16^o Kongres sekcji chirurgii szczekowo-Twarzowej i Stomatologicznej PTS – Krakow (Poland), 19-20 May 1994 “Surgical prevention treatment of skeletal malformation II molar class” – “Surgical assisted rapid palatal expansion”.

European Day for the Prevention and Treatment of Cranio-maxillofacial Dysmorphisms – Turin, 29-31 May 1997 “Treatment of sleep apnea in maxillomandibular hypoplasia” –

“Congenital Malformation Syndromes: Sotos Syndrome”

“Craniofacial structural alterations in Marfan syndrome”

“Clinico-somatic characteristics in cleidocranial dysostosis” - “Surgery Prediction in Orthognathic Surgery” – “Polymalformative hypoglossia-hypodactylia syndrome” – “OPT re-evaluation in preliminary diagnosis of cervicocranial mandibular dysfunctions” – “Familiarity with skeletal class IIs” – “Open bite in juvenile rheumatoid arthritis” – “Morphofunctional alterations in acromegalic patients” – “Manipulative treatment of dysfunctions of the stomatognathic apparatus” –

“craniofacial skeletal alterations in β -thalassemia” – “Crouzon syndrome: oro-maxillo-facial clinical aspects” – “Gonial angle and intermaxillary divergence in disgnathic patients”

III International World Congress on Maxillo-facial Surgery – Turin, 17-20 June 1998 “Presurgical Protheses for Congenital Cavities”.

II Congress of the Polish Society of Oral and Maxillo-facial Surgery – Kracow (Poland), 20-22 May 1999 “Long term assessment of bone regenerated integrated implants” – “Paradental Assessment of patients with increased upper maxillary transversal diameters”.

VII Congress of the Polish Society of Plastic, Reconstructive and Aesthetic Surgery – Polanica (Poland), 27-29 May 1999 “Rapid surgical expansion of the palate: tooth and skeletal increase and long term stability” – Craniomandibular problems in the disgnathic patient under orthodontic surgical treatment”.

XVII International SIDO Congress – Rimini, Italy 1-4 October 2003 “Use of the Wilson 3D lingual arch in the advancement of incisors – Recovery of teeth in adults: prognosis and therapy”.

II International Conference and ICOI Meeting – Sorrento, Italy 16-18 June 2005 “Implantology: the state of the art and new perspectives”.

First Italian Conference – Taormina, Italy 29 July 2006 “Health, the environment and gene interaction”.

International Workshop of Paediatric Surgery – Turin, 16-19 May 2007 “Osteolytic lesion of the jaw: the importance of exact diagnosis and therapeutic choice”.

III International Congress IFUNA – Turin, 1-4 October 2009.

XXII International SIDO Congress – Florence, 24-27 November 2010 “The needs of the ortho-surgical patient: innovative treatment proposals”.

SENAME ICOI SIDCO International Conference – Naples, 31 March – 2 April 2011 “Multidisciplinary approach to oral surgery: from endodontic surgery to the aesthetic aspect in implantology”.

The EPS Global International Paediatrics Summit - Nanjing, China 15-16 October 2010 “Odontogenic tumors in childhood: a retrospective study of 86 treated cases. Importance of a correct histopathologic diagnosis”.

The 3rd Chongqing International Clinical Neuroscience Forum & NeuroDrug Conference - Chongqing, China 21-23 October 2011 “Saldino-Mainzer syndrome: nephronophthisis, retinitis pigmentosa, and cone-shaped epiphyses”.

EPS Montreal International Gene Conference - Montreal, Quebec, Canada 3-4 November 2011 “Diagnosis and treatment of familial cherubism characterized by early onset and rapid development”.

I^o National Symposium of Videosurgery, 12-14 July 2012 Taormina, Italy - *The Mediterranean Congress of Odontostomatological Disciplines*. Taormina 12-13 July 2013

International Congress SIDCO: The Challenge Of Horizon 2020: Excellence In Osteological Science. Turin 30-31 May 2014 -

Hemocomponents for non-transfusional use: from theory to clinical practice 16-17 October 2015 Cremona Italy. "Clinical use of platelet concentrates: lights and shadows

International Congress ANTHEC Implantology of the latest generation with the aid of autologous platelet concentrates in ridge augmentation and soft tissue healing. 8-9 July 2016 Taormina, Italy -

National Symposium Surgical Treatments and Implantology in the patient affected by serious systemic pathologies. 7 April 2017 Milan -

National Meeting Multidisciplinary regenerative medicine: focus on growth factors. 25 February 2017 Turin

Clinical Research and Innovation in Regenerative Medicine Closed Meeting. 25 November 2017, Turin -

I International Congress Technological Innovations and Experimental Protocols in Periodontology and Oral Surgery. Use of growth factors, clinical relevance and perspectives. Bari, Italy 28 and 29 September 2018. Eventual role of the circRNA released by platelet during the wound healing

Andi Congress. CT 19-20 October 2018 Regen/Oss collagen hydroxyapatite in the regeneration of the jaws

2 International Congress Technological innovations and experimental protocols in periodontology and oral surgery. Use of growth factors, clinical relevance and perspectives. Bari, Italy 13 and 14 September 2019. Repair and healing process biologically guided .

Areas of scientific interest and research fields:

Alterations in cranio-maxillofacial growth, the genetics of malformations and rare diseases (biomarkers for molecular alteration, epigenetic damage, genetic predisposition)

Study of risk factors from industrial pollution in the etiopathogenesis of congenital dimorphisms, exposure to teratogenic agents and effects on foetal development.

Evaluation of the healing power of human and animal amniotic stem cells and dental pulp stem cells with osteogenic and neurogenic differentiation.

Development and features of biomaterials.

Bone tissue engineering, tooth regeneration and mesenchymal tissues in general.

Development of magnetic nanoparticles for the diagnosis and therapy of oncological illnesses.

Development and features of scaffolds for drug delivery in tissue engineering.

Use of blood components for non-transfusion purposes in bone regeneration, healing and difficult wounds, in patients with systemic diseases.

Use of platelet-rich concentrates in the regeneration of hard and soft tissues and volumetric increase.

Development of technologies for functional musculoskeletal tissue regeneration or for implantable prosthetic devices: cartilage, bone, ligaments, tendons, with diversified approaches and all the necessary tools including 3D in vitro and in vivo models, manufacturing technology and diagnostic tools for personalized and precision applications.

Biomimetic and Tissue Engineering

Scientific publication activity

Over **350 papers** in scientific magazines and national and international journals.

Peer review and referral activities for Journal of Craniofacial Surgery, Journal of Osseointegration, Minerva Stomatologica, Minerva Ortognatodontica, Doctor Os, Cancer Surgery, European Journal of biomedical and pharmaceutical Sciences, International Journals: Oral diseases, Oral Oncology, Am J Orthod. & Dentofacial, Orthopedy, Journal of Biological Regulators & Homeostatic Agents BMC Oral Health, Frontiers, Nanomaterials, Prevention and Research, Materials, Materials Chemistry and Physics.

Editor in chief of the Italian Supplement to the Journal of Craniofacial Surgery.
Member of the editorial board of the following journals: Journal of Osseointegration, Minerva Stomatologica, Minerva Ortognatodontica, Doctor Os, Journal of Craniofacial Surgery, Cancer Surgery, European Journal of biomedical and pharmaceutical Sciences.

Book chapters

Rare Diseases, Genetic Diseases and Oro-Cranio-Facial Area as its Domain - ISBN: 9788846737052 , 2013 Ed. ETS

Odontostomatological materials and technologies for dental hygienist - ISBN 978-88-908159-7-3 Ed.: Ariesdue Srl Edizione: II 2013.

Odontostomatological Surgery Ed.: Minerva Medica 2015 - EAN: 9788877117854 :

Pharmacological therapy in oral surgery - ISBN: 978-88-7711-785-4 ♪ 2014 – ed. Minerva Medica

Dental inclusions - ISBN: 978-88-7711-785-4 ♪ 2014 – Ed. Minerva Medica

Treatment of eruption anomalies - ISBN: 978-88-7711-785-4 ♪ 2014 – Ed. Minerva Medica

Benign neoformations of the hard tissues of the jaws - ISBN: 978-88-7711-785-4 ♪ 2014 – Ed. Minerva Medica

Oral pathology - ISBN: 978-88-7711-785-4 ♪ 2014 – Ed. Minerva Medica

Biomaterials used in bone regeneration - ISBN: 978-88-7711-785-4 ♪ 2014 – Ed. Minerva Medica

Hemocomponents for non-transfusional use in oral and implant surgery - ISBN: 978-88-7711-785-4 ♪ 2014 – Ed. Minerva Medica

Elements of forensic odontology in oral surgery - ISBN: 978-88-7711-785-4 ♪ 2014 – Ed. Minerva Medica

Autologous blood components as stimulants of tissue healing - ISBN 978-88-940334-9-6 - Ed. Tueor 2017

Tissue Engineering: Use of Growth Factors in Bone Regeneration - DOI 10.5772/intechopen.69875 In book: Biomaterials in Regenerative Medicine License CC BY4.0 February 2018

Innovative Procedures in polyspecialistic Regenerative Medicine and Surgery. Tissue engineering: use of autologous growth factors in bone regeneration. - Ed. SIMCRI 2018

Permanent working partnerships:

Tampa Bay Craniofacial Center (USA) Dr. Mutaz Habal

Department of Neuroscience Mayer Hospital, Florence

Department of Physiology and Epidemiology National Research Centre – Pisa, Italy.

Institute of Sciences and Techniques of Ceramic Materials (ISTEC-CNR)

Gabriele D'Annunzio University - Chieti, Italy

Vita-Salute San Raffaele University – Milan, Italy

University of Teramo, Italy

Transational Rearch Center Lugo /Ravenna Italy

Maria Cecilia Hospital GVM Care end Research Cotignola Ravenna, Italy

Department of Medical Science Ferrara University – Ferrara, Italy

REGAIN - REgenerative GAleazzi INstitute Milan, Italy

Department of Biomedical, Surgical and Dental Sciences - Galeazzi Orthopedic Institute I.R.C.C.S Milan, Italy

Department Oral Rehabilitation Tel Aviv, University , Israel

Department DISCO , Marche Polytechnic University Ancona Italy

Recent publications on current research – C.Mortellaro et al.**Autophagy drives osteogenic differentiation of human gingival mesenchymal stem cells**

December 2019 Cell Communication and Signaling 17(1)

Bovine pericardium membrane as new tool for mesenchymal stem cells commitment

July 2019 Journal of Tissue Engineering and Regenerative Medicine

Predictability of Mandibular Autorotation After Le Fort I Maxillary Impaction in Case of Vertical Maxillary Excess

April 2019 Journal of Craniofacial Surgery 30(4):1

Bovine pericardium membrane as new tool for mesenchymal stem cells commitment

July 2019 Journal of Tissue Engineering and Regenerative Medicine

Histologic and Radiographic Characteristics of Bone Filler Under Bisphosphonates

March 2019 The Journal of craniofacial surgery 30(4)

Medication-Related Osteonecrosis of the Jaw: The Use of Leukocyte-Platelet-Rich Fibrin as an Adjunct in the Treatment

March 2019 The Journal of craniofacial surgery

Prospective Clinical and Histologic Evaluation of Alveolar Socket Healing Following Ridge Preservation Using a Combination of Hidroxyapatite and Collagen Biomimetic Xenograft Versus Demineralized Bovine Bone

Mar 2019 - Journal of Craniofacial Surgery

Histological Evaluation of The Effect of Growth Factors in a Fibrin Network on Bone Regeneration

Mar 2019 - Journal of Craniofacial Surgery

Poly D ,L/ Lactide /Co/glycolic Acid Grafting Materials in Sinus Lift

Jan. 2019 - Journal of Craniofacial Surgery

Dental Implants With a Platform-Switched Morse Taper Connection andan Osteo Growth Induction Surface

Nov - 2018 - Journal of Craniofacial Surgery

Osteotomy in Genioplasty by Piezosurgery

Oct 2018 Journal of Craniofacial Surgery

Bilateral Hiperplasia of The Coronoid Process in Pediatric Patients:What is the Gold Standard for Treatment?

Oct 2018 - Journal of Craniofacial Surgery

In Vitro Effect of Bromelain on the Regenerative Properties of Mesenchymal Stem Cells

Oct 2018 - Journal of Craniofacial Surgery

Osteotomy in Genioplasty by Piezosurgery

Oct 2018 - Journal of Craniofacial Surgery

Three-dimensional microarchitecture and local mineralization of human jaws affected by bisphosphonate-related osteonecrosis

Jul 2018 - Oral Oncology

Miniaturized Electromagnetic Device Abutment Improves Stability of the Dental Implants

July 2018 - Journal of Craniofacial Surgery

Near infrared low-level laser therapy and cell proliferation: The emerging role of redox sensitive signal transduction pathways

May 2018 - Journal of Biophotonics

Bisphosphonate-related osteonecrosis of the human jaw: A combined 3D assessment of bone descriptors by histology and synchrotron radiation-based microtomography

May 2018 - Oral Oncology

Intense, Instantaneous, and Shooting Pain During Local Anesthesia for Implant Surgery

Apr 2018 - Journal of Craniofacial Surgery

Short Implants: Analysis of 69 Implants Loaded in Mandible Compared With Longer Implants

Apr 2018 - Journal of Craniofacial Surgery

Evaluation of Fibrin Clot Attachment on Titanium Laser-Conditioned Surface Using Scanning Electron Microscopy

Mar 2018 – Journal of Craniofacial Surgery

Prosthetic Complications Affecting Single-Tooth Morse-Taper Connection Implants

Mar 2018 - Journal of Craniofacial Surgery

Upper Eyelid Blepharoplasty With Voltaic Arc Dermabrasion

Mar 2018 - Journal of Craniofacial Surgery

Three-Dimensional Virtual Treatment Planning: Presurgical Evaluation

Mar 2018 - Journal of Craniofacial Surgery

Tissue Engineering: Use of Growth Factors in Bone Regeneration

Biomaterials in Regenerative Medicine Feb 2018

Scanning Electron Microscopy Evaluation of Root Surfaces After Instrumentation With Two Piezoelectric Devices

Feb 2018 - Journal of Craniofacial Surgery

Three-Dimensional Virtual Treatment Planning: Presurgical Evaluation

Mar 2018 - Journal of Craniofacial Surgery

Erbium Yttrium–Aluminum–Garnet Laser Versus Traditional Bur in the Extraction of Impacted Mandibular Third Molars: Analysis of Intra- and Postoperative Differences

May 2018 - Journal of Craniofacial Surgery

Peripheral Giant Cell Granuloma Associated With Dental Implants

Jan 2018 - Journal of Craniofacial Surgery

International research in progress

Histological and digital evaluation of extraction sockets treated with biomaterials and rehabilitated with dental implants

Role of exosomes produced by platelets in the tissue regeneration process

Characterization and optimization of biomaterials for tissue regeneration through the use of platelet-rich plasma

Nanoparticles coated with CGF: a new approach to the treatment of cutaneous wounds

Osteogenesis and inflammatory response of biomaterial scaffolds engineered with stem cells and enriched with Platelet Rich Plasma (PRP) on animal model

Biocompatible PLA poly-lactic acid matrix enriched with CGF for bone regeneration in dentistry

Laser biomodulation and tissue regeneration: the effect of diode laser (645nm) on stem cells and PRP

Use of L-PRF Block in the treatment of 2nd class bone defects

PRGF in human osteoblast-like cells and bone regeneration

Multi-center, randomized controlled clinical study on the application of CGF in the treatment of difficult wounds.

Post extraction alveolar ridge, preserved with L-PRF: clinical and histological evaluation

Application of Leukocyte-Platelet Rich Fibrin for the prevention and therapy of osteonecrosis of the maxillary bones with drugs

Effectiveness of the PRGF in the maxillary sinus augmentation procedure in case of perforation or total removal of the sinus mucosa.

Liquid Phase CGF - analysis and characterization of the liquid phase

Use of Autologous Platelet Gel in the treatment of facial aging and soft tissue

Evaluation of the effectiveness of joint infiltrations with PRGF in the treatment of arthrosis of the TMJ

Topical application of autologous PRF in patients on anticoagulant therapy (Cumadin), in Oral Surgery,

Bone tissue regeneration induced by Resveratrol from gingival stem cells: the role of autophagy in cellular remodeling

Material characterization and study of tissue microstructure with synchrotron radiation

Additional information

Prof. Carmen Mortellaro, Full Professor at the University of Eastern Piedmont School of Medicine and associate professor at the cnr (Faenza, Italy), has carried out more than 2,500 surgical operations as first surgeon in the Department of Medical Sciences in Novara, at the University Hospital San Luigi Gonzaga (University of Turin) and at the department of General Surgery of the Regina Margherita children's Hospital of Turin, mainly on syndromic, malformed, oncological patients and those with systemic diseases.

Prof. Carmen Mortellaro is the creator of the maxillary disjunction surgery technique with nasal septum detachment in increased transverse diameter and pioneered the disinsertion of the buccinator muscles in mandibular micrognathism in the developmental age.

Prof. Carmen Mortellaro pioneered the use of autologous blood transfusion and platelet-derived growth factors in jaw regeneration, in difficult healings, in diabetic patients with cancer, radio-treated patients, in patients taking bisphosphonates and at risk of osteonecrosis.

Prof. Carmen Mortellaro is the author of the preclinical and clinical study of the biomimetic scaffold of magnesium nanocrystals and hydroxyapatite in collagen fibres in the regeneration of jaw bone tissue.

Torino , 27 Luglio 2019

