

CURRICULUM VITÆ

Maurizio S. Tonetti

1. Personal data

Qualifications: DMD(Genova), PhD(Bern), MMSc(Harvard), FDS RCPS, FDS RCS(Eng), FHEA
Birth date: May 18, 1961
Place of birth: Genova, Italy
Nationality: Italian

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2. Current Principal Positions & Bibliometry

- Chair Professor, School of Medicine, Shanghai Jiao Tong University School of Medicine, Shanghai, China
- Honorary Director and Chairman of the Academic Committee, National Clinical Research Center of Stomatology, Shanghai Ninth People Hospital, College of Stomatology, Shanghai Jiao Tong University
- Principal Scientist of the Clinical Research Center, Shanghai Ninth People Hospital, China
- Executive Director, European Research Group on Periodontology (ERGOPERIO), Brienz, Switzerland
- Honorary professor, Medical University of Vienna and University of Hong Kong.
- Author of more than 200 original peer reviewed research manuscripts in international peer reviewed Journals. Primary author of 20 international consensus reports and more than 60 reviews and book chapters. Google scholar personal citation > 38,500 with more than 5,000 citations in the previous year, H-factor 100, i-10 Index 233. Has authored 7 (out of 55) of the citation classics in periodontology in the years 1990-2005. Independently published bibliometric research has indicated that he is one of the top 5 cited authors in the fields of periodontology and implant dentistry worldwide over the past 15 years.
- Results of his research have been featured in lay press journals, magazines as well as television news around the world (including CNN, BBC news, New York Times, The Times and many other).

3. Key Professional Achievements

- Original research clarifying the local and systemic inflammatory pathogenesis of periodontitis and peri-implantitis
- Implementation of dozens of multicenter, multinational trials in Periodontology and Implant Dentistry
- Key contribution to Evidence-Based Periodontology and International Consensus Conferences
- Development of the key scientific Journal in the field (Journal of Clinical Periodontology, IF=8.7)
- Development and world-wide implementation of the current classification of periodontitis
- Development of EFP S3 clinical guidelines for stage I-III and stage IV periodontitis – adopted as policy by Germany, United Kingdom, Spain and Italy and under consideration by multiple governments
- Establishment of EFP-accredited training program in Periodontology and Implant Dentistry at University College London and University of Hong Kong
- Training of multiple PhD/Master students with leadership roles in Academia/Health care in North America, UK, Italy, Germany, Switzerland, Spain, Singapore, Malaysia, China, Australia, Saudi Arabia
- Establishment and operation of the European Research Group on Periodontology, the European Clinical Research Network of Excellence in the field of Periodontology and Implant Dentistry
- Top Italian scientist list (currently ranked 53) – Top 10 oral health scientists internationally
- Team Building & Leadership in Switzerland, UK, USA, Europe, Hong Kong

4. Former Principal Positions & Functions

- Editor in Chief, Journal of Clinical Periodontology, Oxford, England
- Tenured Clinical Professor of Periodontology, Division of Periodontology and Implant Dentistry Faculty of Dentistry, Prince Philip Hospital, The University of Hong Kong
- Clinic Manager, Periodontology Clinic, Prince Philip Dental Hospital, Hong Kong.
- Clinic Manager, Comprehensive Dental Care Clinics (Periodontology, Cariology, Endodontology, Prosthodontics) Prince Philip Dental Hospital, Hong Kong.
- Director, EFP-accredited MDS(Periodontology) and specialist training, Hong Kong University
- Division coordinator, Division of Periodontology and Implant Dentistry, Faculty of Dentistry, University of Hong Kong.
- Member of the Board of Governors, Prince Philip Dental Hospital, Hong Kong, SAR China.
- Member of the Executive Board, European Federation of Periodontology, Brussels, Belgium
- Tenured Full Professor of Periodontology, University of Connecticut.
- Head, Dept of Oral Health and Diagnostic Sciences, School of Dental Medicine, University of Connecticut Health Center.

- Head, Dept of Periodontology, School of Dental Medicine, University of Connecticut Health Center.
- Tenured Full Professor of Periodontology, University Established Chair, University College London (maximum part-time).
- Head, Dept of Periodontology, Eastman Dental Institute and Hospital, University College London.
- Director, Master and specialist training program in Periodontology, University of Connecticut
- Co-Director, Eastman Clinical Investigation Centre, UCL
- European Editor, Journal of Periodontal Research
- Assistant and Associate Professor of Periodontology, Dept. of Periodontology and Fixed Prosthodontics, School of Dental Medicine, University of Berne.
- Director of the Oral Pathophysiology research laboratory, School of Dental Medicine, University of Berne.
- Part-time private practice limited to Periodontology in Genova, Italy and London, UK.

5. Summary of Research Contribution

Over the years my contribution has changed from being only focused on specific research projects with the addition of a more general enabling activity, and from more fundamental mechanistic to clinical translational research.

In earlier years, a significant component of my research was focused on laboratory research that led to clarification of the molecular pathways leading to recruitment of neutrophils to the dento-gingival junction as primary component of host defense and identification of specific disturbances leading to periodontitis. As I moved to University College London, I set up an interdisciplinary research program focused on the systemic inflammatory burden associated with severe periodontitis. This program led to the establishment, in a key paper published in the *New England Journal of Medicine*, of a causal link between periodontitis, systemic inflammatory burden and the earlier changes leading to atherosclerosis. With great pride I see this original team moving forward independently and expanding the observations in areas like metabolic control, diabetes and obesity.

In parallel, my research followed on the expertise acquired during my clinical training at Harvard/Forsyth in the late 1980s on the design, planning and execution of large clinical trials. This line of research required the establishment in the middle 1990s of a practice based clinical research network and a core research support infrastructure. This has grown into the establishment of a European network of clinical excellence; the European Research Group on Periodontology (ERGOPerio). Over the last 25 years, this network has executed under my leadership some of the most successful and impactful clinical trials in Periodontology and Implant Dentistry and has capitalized on the clinical and research expertise of a wide array of academic centers and secondary care facilities. The collaboration with many of these colleagues has been ongoing for the last 20-25 years. Success of the network has relied upon clinical and technological innovation demonstrated in small-scale pilot trials and its testing and larger scale deployment through multicenter trials within the network. Impact has been in 5 areas:

- i) Antimicrobial management of dysbiotic biofilms driving periodontal inflammation and tissue breakdown: in this area our research has shown the importance of oral ecology on the stability of the clinical outcome, the benefits and limits of a variety of local and systemic routes of delivery of

- antimicrobials and has contributed to setting international standards of care in terms of the use of adjunctive antimicrobials to mechanical biofilm removal;
- ii) Periodontal regeneration of intrabony defects: in this area the team is widely recognized as having developed and tested the current international standards of care through the development of biologically guided, minimally invasive surgical techniques combined with the use of new technologies for promotion of periodontal regeneration/tissue engineering;
 - iii) Periodontal plastic surgery: published and ongoing trials are defining indications, adverse events and time to recovery of different type of procedures and in particular have clarified the benefits and indications of adding autologous connective tissue grafts to coronally advanced flaps;
 - iv) Dental implant replacement of teeth with hopeless prognosis: in this area with limited scientific evidence on the merits of different approaches we have addressed the merits and limitations of immediate and delayed implant placement and are currently testing the benefits and limitations of alveolar socket preservation/regeneration approaches.
 - v) Classification and diagnosis of periodontal diseases: we have made key contributions to the last two editions of the international classification of periodontal health and diseases, as well as to the screening and diagnosis of periodontitis. We have led efforts to establish multidimensional risk models for periodontitis as well as clinical approaches that incorporate risk assessment in daily care. Ongoing research focusing on artificial intelligence and mobile health apps aims to empower people to perform self-diagnosis/screening.

Since moving to SJTU, my personal research focus has been on systemic effects of periodontal disease (including tooth loss) and benefits of multidisciplinary management of patients with medical and periodontal co-morbidity. I have established collaborations with leading investigators in biomedicine with the aim to initiate fundamental work that could later translate into clinical trials. An important program aims to establish the role of oral health in healthy ageing through intervention in two key mechanisms of poor oral health: i) systemic inflammation; and ii) change in food choices, diet composition and nutrition. Clinical research activities in Europe are still ongoing through the ERGOPerio network.

With regards to research enabling activity, I am proud of both my global and local activity. My global contribution to periodontal health of mankind had a pivotal moment when my proposal to the European Workshop on Periodontology committee to embrace evidence based methodology for the development of consensus conferences was accepted and we proceed to introduce training on systematic reviews and the Cochrane collaboration methodology to a group of key investigators in the field. In 2002 the first evidence-based workshop took place and has been applied ever since to consolidate our body of research. As member of the Workshop committee of the European Federation of Periodontology I was given the opportunity to contribute to the strategic development of the evidence base of modern periodontology and implant dentistry. In parallel, in my capacity of Editor in Chief of the leading periodontology scientific Journal, I have driven change in quality of reporting, research integrity with the aim to foster a robust and credible evidence base to the clinical specialty. This vision was also enhanced by the opportunity to work with governmental and non-governmental bodies around the world to drive change through policy. Key recent achievements have been the opportunity to be part of an official delegation at the European Parliament and at the World Health Organization, as well as the publication of a global call to action for periodontal health that I have had the privilege to draft and has received endorsement by 50 learned societies in Periodontology from all over the world.

Currently I am leading the effort on two multicenter, multinational trials, working on the analysis and reports of five additional ones, and I am in advanced stages of planning another two. I am also actively leading/involved in a series of smaller scale multicenter and single center studies. I am currently active as advisor to major industrial groups with an interest in Oral Health.

During my recent tenure at HKU, I have developed a concept and planned facilities for establishment of a clinical research center as a core Faculty resource. Such concept has become a strategic initiative priority for the Faculty and funding has been awarded. This facility has been designed to work with the HKU clinical trial unit and address the unique needs of clinical research in dentistry.

I recently joined as associate member the State Key Lab of pharmaceutical biotechnology at the Li-Ka Shin Faculty of Medicine to enhance interdisciplinary research in the areas of ageing and cardio-metabolic research.

6. Education

1980	Science Matura, Liceo C. Colombo, Genova, Italy
1985	Doctor in Dental Medicine, University of Genova, Italy
1989	Master of Medical Sciences, Harvard University, Cambridge, USA
1989	Certificate in Periodontology, Harvard School of Dental Medicine, Boston, USA
1989	Certificate in Pharmacology, Forsyth Research Institute, Boston, USA
1997	PhD (Habilitation) in Clinical Dentistry, with emphasis in Periodontology and Pathophysiology, Medical Faculty, University of Berne, Switzerland
2004	Fellow of the Higher Education Academy, UK

7. Honors & Prizes

1985	Doctor in Dental Medicine "Summa cum Laude" with "Special mention" and "Thesis Publication"
1986-1987	Research Fellowship, Italian Society of Periodontology
1986-1988	Research Fellowship, Foundation Blanceflor Boncompagni Lodovisi född Bildt, Stockholm, Sweden
1994	Research competition award, European Federation of Periodontology, Paris, France
1995	Research prize "Lorenzo il Magnifico", Italian Society of Periodontology, Firenze, Italy
1995	H.R. Mühlemann research prize, Swiss Society of Periodontology, Zermatt, Switzerland
1996	Scientific Member of the Swiss Society of Periodontology
1997	Young Investigator Award, International Association of Dental Research, Washington, USA
1997	Anthony Rizzo Periodontal Research Award, International Association of Dental Research, Washington, USA
1999	Honorary Member, Belgian Society of Periodontology, Brussels, Belgium
2001	Fellowship ad eundem, Royal College of Physicians and Surgeons (Glasgow)
2002	Corresponding member of the Swiss Society of Periodontology
2003	Fellowship ad eundem, Royal College of Surgeons of England
2003	Honorary Member, German Society of Periodontology, Berlin, Germany
2003	ANDI (Italian Dental Association) Giuseppe Sfregola Research Prize for Career Scientific Achievements, Genova, Italy
2004	Henry Goldman Research Prize in Periodontology
2005	Clinical Research Award, American Academy of Periodontology
2005	Medical College of Georgia, Hyman Fellowship
2007	Columbia University, Bernard Moskow lecture
2009	Honorary Member, Israeli Dental Association
2010	Clinical Research Award, European Association of Osseointegration
2012	Clinical Research Award, American Academy of Periodontology

2012	Honorary Member, Hellenic Society of Periodontology
2013	Robinson Periodontal Regeneration Award, American Academy of Periodontology
2016	Honorary Advisor, Hong Kong Society of Periodontology and Implant Dentistry
2017	Professor GB Shankalkwar Oration, Indian Society of Periodontology
2017	Honorary Professor, Medical University of Vienna
2018	Clinical Research Award, American Academy of Periodontology
2018	Special Citation Award, American Academy of Periodontology
2018	Platinum Award, Spanish Society of Periodontology
2021	Robinson Periodontal Regeneration Award, American Academy of Periodontology

8. Editorial Boards & Peer Review Activity

2004-2021	Editor in Chief, Journal of Clinical Periodontology
2000-2004	Editor for Europe, Journal of Periodontal Research
1991-2000	Clinical Oral Implants Research, member of the Editorial Board
1993-1997	Rivista Italiana di Stomatologia, member of the Editorial Board
1994-1999	Rivista Italiana di Ortognatodonzia, member of the Editorial Board
1994	Journal of Clinical Periodontology, ad hoc reviewer
1995-1997	Journal of Clinical Periodontology, member of the Editorial Board
1995-2003	Journal of Dental Research, ad hoc reviewer
1995-1999	Current Opinion in Periodontology, member of the Editorial Board
1997-	Infection & Immunity, ad hoc reviewer
1997-1999	Journal of Periodontal Research, ad hoc reviewer
1999-	Journal of Periodontology, member of the Editorial Board
2001	Cytokine, ad hoc reviewer
2004-2007	Journal of Dental Research, member of the Editorial Board, member of the publications committee of the International Association of Dental Research
2004-	European Heart Journal, ad hoc reviewer
2004	Journal of Cell Physiology, ad hoc reviewer
2005	American Journal of Cardiology, ad hoc reviewer
2005-	The Lancet, ad hoc reviewer
2005	Clinical Practice, ad hoc reviewer
2006	Heart, ad hoc reviewer

I feel privileged for having provided my services as editor and/or member of the editorial board to 5 of the top 7 scientific Journals in Dentistry that deal with original research material.

A tangible sign of my dedication to quality scientific communication was the improvement in impact factor and ranking achieved by the Journal of Periodontal Research during my tenure as European Editor as well as the increase in impact factor of the Journal of Clinical Periodontology since I took the editorship of the Journal.

I have served as scientific reviewer for research grant applications submitted to the Medical Research Council (UK), the Engineering and Physical Sciences (EPSRC, UK), the National Health Service (UK), the Swiss National Science Foundation (Switzerland), the Veterans Administration (USA), the Wellcome trust (UK), the German National Science Foundation clinical trial panel (Germany) the Australian Medical Research Council (Australia) and the National Institute of Health (USA) including U01 program series, the Finnish Medical Research Council (Finland), the Beijing University Research grant scheme (PRC), The Canadian Medical Research Council, The French INSERM, The Irish Research Council.

9. Membership and Service to International Organizations

- International Association of Dental Research
 - Periodontal Research Group (President, Secretary, Treasurer, Group Program Chair, Overall Program Co-ordinator, Organizing Committee of the International Conference on Periodontal Research).
 - Membership Committee
 - Publication Committee

- European Federation of Periodontology (EFP)
 - Editor (Journal of Clinical Periodontology)
 - Executive Board
 - Strategy Development group
 - European Workshop Committee (European Academy of Periodontology)
 - Scientific Chairman, Europerio 4
 - Research Committee
 - Participant, reviewer, chairman European Workshops in Periodontology

- American Academy of Periodontology (AAP)
 - Research, Science and Therapy Committee, Primary author of position paper
 - Participant at the World Workshop in Periodontology of 1996
 - Reviewer, International Classification Workshop of 1999
 - Chairman, Regeneration and plastic surgery, Workshop on Contemporary Science in Clinical Periodontics 2003
 - Co-Chairman main interactive session, Annual Meeting 2005 Denver, 2007 Washington
 - Member organizing Committee of the 2017 World Workshop for the classification of Periodontal Diseases

- European Association of Osseointegration
 - Company secretary of the UK based EAO charity

- Italian Society of Periodontology
 - President
 - Chair, Safety and Quality in Periodontal Surgery Implant Committee –Endorsed by Italian Ministry of Health
 - Specialist nomination committee (chairman, member)
 - Scientific council (chairman, member)
 - Implant committee chairman
 - Periodontal diagnosis committee
 - Consensus developing committee
 - Perio-medicine committee

Because of my professional experience in 5 countries (Hong Kong (SAR China), USA, Italy, Switzerland and UK), I have been able to bring a unique global perspective with full respect and emphasis of the local roots to the organizations I have been engaged with.

I have also participated in the development and delivery of continuing professional development programs for specialists in Periodontology in partnership with National Periodontal Societies and Universities around the world.