

Curriculum Vitæ

Andrei Cristian IONESCU

Education and training

- November 2011 – March 2015 **PhD in Nanotechnologies**, University of Trieste, Italy, supervisor: Prof. Milena Cadenaro, tutor: Prof. Lorenzo Breschi. Title of the thesis: The influence of resin-based dental materials upon oral biofilms development.
- September 2003 - November 2008 **Doctor in Dental Surgery** degree, graduation score: 110/110, University of Milan, Milan, Italy. Supervisor: Prof. Eugenio Brambilla, tutor: Dr. Luigi Fadini. Title of the thesis: Influence of photopolymerization on the adhesion of *Streptococcus mutans* to novel siloranic resins.
- August 26 – 30, 2013 **“Communication of scientific research”** Summer school, director Dr.Doc. Maria Flora Mangano, University of Tuscia - Alpine Research Center, Pieve Tesino (TN) Italy.

Work experience

- Starting from September 2016 **Winner of 2-year Post-doctoral Research Fellow position, renewed for an additional year** Department of Biomedical, Surgical and Dental sciences, University of Milan.
- Starting from September 2013 **Visiting physician and Tutor (Clinical instructor)**, Restorative Dentistry and Endodontics department - Prof. Eugenio Brambilla, IRCSS Galeazzi Institute, Dental Unit, director Prof. Luca A. Francetti, Milan.
- October 2011 - September 2012 **Winner of four quarterly scholarships** at the University of Eastern Piemonte “Amedeo Avogadro”, Supervisor: Prof. Lia Rimondini. Title of the scholarships: Evaluation of antibacterial properties of toughened ceramics for dental and orthopedic implants.
- Starting from September 2010 **Tutor and Fellow** for the Restorative Dentistry course– Director Prof. Eugenio Brambilla, University of Milan. Tutor for three D.D.S. graduation thesis during that period.
- Starting from November 2005 Oral Microbiology Laboratory – Director Prof. Eugenio Brambilla, Department of Biomedical, Surgical and Dental sciences, University of Milan: **Basic science research activity** chiefly regarding the study of oral biofilms and their interaction with dental materials; study and synthesis of novel antibacterial materials also by using nanotechnology with bottom-up approach; development of continuous flow bioreactor systems for cariogenic biofilm development, biochemical analysis, surface analysis and microscopy (optical, SEM, CLSM), μ CT analysis. Dental materials mechanical testing including three-point bend test, compressive strength, microtensile bond strength, push-out test.

Markers of esteem

- Oral presentation as invited speaker:** Interface of oral biofilms with dental materials. Lecture at the Turku Biomaterials Days 2017 - Interfaces and Interphases Congress, October 26-27, 2017.
- Organizer of the First Young CED-IADR Symposium:** Biofilms and Dental Materials Interactions: What is new? and Oral presentation: Dental Materials with Antibacterial Properties. CED-IADR meeting, September 20-23, 2017.
- Winner as Best Poster presentation** Biofilm Formation on Dental CAD-CAM Composite Block Materials Ionescu AC, Cazzaniga G, Ottobelli M, Cerati M, Brambilla E. European Dental Materials biennial conference, London, August 30 – September 1, 2017.
- Winner of CED-IADR Travel Award**, Biofilm formation on glass ionomer cement-based materials in relation to their surface properties and fluoride content. Ionescu AC, Hahnel S, Cazzaniga G, Ottobelli M, Brambilla E. IADR-PER/NOF meeting. Jerusalem, Israel, September 20-22, 2016.
- Oral presentation as invited speaker** Characterizing the effects of materials on biofilms, Symposium: Challenges in Measuring Biofilm-Material Interactions, organizers Dr.Nancy Lin (NIST), Dr. Gary Schumacher (ADAF-VRC). IADR General Session meeting, Boston, USA, March 11-14, 2015.
- First place winner** *Streptococcus mutans* biofilm formation on chlorhexidine-containing dentin bonding agents. **George Paffenbarger Award 2013**, ADM General Session meeting, Vancouver, BC, October 10-12, 2013.
- Second place winner** Biofilm formation on composites differing in resin and filler properties. **Robert Frank Award 2013**, IADR-CED meeting. Florence, Italy, September 4-7, 2013.
- Teaching assignment of Restorative Dentistry.** Training course for the Register of Dental practitioners, University of Milan, Italy, October 28, 2011 – February 3, 2012.
- Second place winner** Effect of light-curing on *in vitro* and *in vivo* mutans streptococci colonization of silorane-based composites and their mechanical behaviour. **3M ESPERTISE Contest** for Dental Researchers. Seefeld, Germany October 2, 2009.
- Member of the Academy of Dental Materials (ADM) since 2013; Member of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID organization) since 2017; Member of the Continental European Division (CED) of the International Association for Dental Research (IADR) since 2009, and since 2018 he is Guest member of the CED-IADR Board. He is Initiator and promoter of the CED-IADR Ambassadors project for scientific communication and dissemination among young researchers, and of the Young CED-IADR Symposium to be held and organized by brilliant young researchers on every meeting of the association since 2017.
- Associate editor of Bio Med Central (BMC) Oral Health since 2017, and associate editor of Stoma Edu J since 2015.
- Reviewer for: Archives of Oral Biology, Dental Materials, Journal of Dentistry, Journal of Infection and Public Health,

Publications

1. Ionescu AC, Cazzaniga G, Ottobelli M, Ferracane JL, Paolone G, Brambilla E. In vitro biofilm formation on resin-based composites cured under different surface conditions. *J Dent*. 2018; <https://doi.org/10.1016/j.jdent.2018.07.012>.
2. Hodžić LL, **Ionescu AC**, Brambilla E, Basso M, Gabrić D, Meštrović S. Shear bond strength of orthodontic brackets luted with RMGIC after Er:YAG laser etching with two pulse modes using a digitally controlled “X-Runner” handpiece. *Photomed Laser Surg*; 2018; accepted for publication 27.04.2018.
3. Kadić S, Baraba A, Miletić I, **Ionescu AC**, Brambilla E, Ivanišević Malčić A, Gabrić D. Push-out bond strength of three different calcium silicate based root-end filling materials after ultrasonic retrograde cavity preparation. *Clin Oral Investig* 2018; 22(3): 1559-1565.
4. Zaltsman N, **Ionescu AC**, Weiss EI, Brambilla E, Beyth S, Beyth N. Surface-modified nanoparticles as anti-biofilm filler for dental polymers. *PloSOne* 2017;12(12), e0189397.
5. **Ionescu AC**, Cazzaniga G, Ottobelli M, Basso M, Brambilla E. Chlorhexidine-containing mouthwashes with different formulations influence *Streptococcus mutans* biofilm viability: an in vitro study. *Dental Cadmos* 2017; 85(7): 391-399.
6. Cazzaniga G, Ottobelli M, **Ionescu AC**, Paolone G, Gherlone E, Ferracane JL, Brambilla E. In vitro biofilm formation on resin-based composites after different finishing and polishing procedures. *J Dent* 2017; DOI 10.1016/j.jdent.2017.07.012.
7. **Ionescu AC**, Varoni EM, Cazzaniga G, Ottobelli M, Brambilla E. Calcium-phosphate nanoparticles reduce dentin hypersensitivity: a randomized, placebo-controlled split-mouth study. *Stoma Edu J*. 2017;4(2):102-107.
8. **Ionescu AC**, Cazzaniga G, Ottobelli M, Cerati M, Brambilla E. New dental restorative materials featuring antimicrobial activity. *Dental Cadmos* 2017; 85(6): 1-12.
9. **Ionescu AC**, Hahnel S, Cazzaniga G, Ottobelli M, Braga RR, Rodrigues MC, Brambilla E. *Streptococcus mutans* biofilm formation on experimental composites containing dicalcium phosphate dihydrate nanoparticles. *J Mater Sci Mater Med* 2017; 28(108): 1-11
10. Brambilla E, **Ionescu AC**, Cazzaniga G, Ottobelli M, Mazzoni A, Cadenaro M, Gagliani M, Tay FR, Pashley DH, Breschi L. In vitro *Streptococcus mutans* biofilm formation on surfaces of chlorhexidine-containing dentin bonding systems. *Int J Adhes Adhes* 2017; 75: 23-30.
11. Hahnel S, **Ionescu AC**, Cazzaniga G, Ottobelli M, Brambilla E. Biofilm formation and release of fluoride from dental restorative materials in relation to their surface properties. *J Dent* 2017; 60: 14-24.
12. Dhavan AA, **Ionescu AC**, Kaduskar RD, Brambilla E, Dallavalle S, Varoni EM, Iriti M. Antibacterial and antifungal activities of 2,3-pyrrolidinedione derivatives against oral pathogens. *Bioorg Med Chem Lett* 2016; 26(5): 1376-1380.
13. Parčina I, Amžić IM, **Ionescu AC**, Brambilla E, Gabrić D, Baraba A. Influence of laser activated irrigation with two erbium lasers on bond strength of individually formed fiber reinforced composite posts to root canal dentin. *Acta stomatologica Croatica*. 2016; 50(4): 321-328.
14. Brambilla E, **Ionescu AC**, Cazzaniga G, Ottobelli M, Samaranyake LP. Levorotatory carbohydrates and xylitol subdue *Streptococcus mutans* and *Candida albicans* adhesion and biofilm formation. *J Basic Microbiol* 2016; 55: 1-13.
15. Ottobelli M, **Ionescu A**, Cazzaniga G, Brambilla E. Influence of light-curing parameters of a silorane-based composite on biofilm development and flexural strength. *Oper Dent* 2016; 41(2): 219-227.
16. **Ionescu AC**, Brambilla E, Travan A, Marsich E, Donati I, Gobbi P, Turco G, Di Lenarda R, Cadenaro M, Paoletti S, Breschi L. Silver-polysaccharide antimicrobial nanocomposite coating for methacrylic surfaces reduces *Streptococcus mutans* biofilm formation in vitro. *J Dent* 2015; 43: 1483-1490.
17. Cazzaniga G, Ottobelli M, **Ionescu A**, Garcia-Godoy F, Brambilla E. Surface properties of resin-based composite materials and biofilm formation: a review of the current literature. *Am J Dent* 2015; 28(6): 311-320.
18. Basso M, Brambilla E, Benites MG, Giovannardi M, **Ionescu AC**. Glassionomer cement for permanent dental restorations: a 48-months, multi-centre, prospective clinical trial. *Stoma Edu J* 2015; 2(1): 25-35.
19. **Ionescu A**, Brambilla E, Wastl DS, Giessibl FJ, Cazzaniga G, Schneider-Feyrer S, Hahnel S. Influence of matrix and filler fraction on biofilm formation on the surface of experimental resin-based composites. *J Mater Sci Mater Med* 2015; 26(58): 1-7.
20. Piconi C, **Ionescu AC**, Cochis A, Iasi E, Brambilla E, Rimondini L. Bioceramic materials show reduced pathological biofilm formation. *Key Engineering Materials: Bioceramics* 26, 2015; 448-453.
21. Hahnel S, Wastl DS, Schneider-Feyrer S, Giessibl FJ, Brambilla E, Cazzaniga G, **Ionescu A**. *Streptococcus mutans* biofilm formation and release of fluoride from experimental resin-based composites depending on surface treatment and S-PRG filler particle fraction. *J Adhes Dent* 2014; 16(4): 313-321.
22. Brambilla E, **Ionescu A**, Mazzoni A, Cadenaro M, Gagliani M, Ferraroni M, Tay F, Pashley D, Breschi L. Hydrophilicity of dentin bonding systems influences in vitro *Streptococcus mutans* biofilm formation. *Dent Mater* 2014; 30: 926-935.
23. Brambilla E, **Ionescu A**, Cazzaniga G, Edefonti V, Gagliani M. The influence of antibacterial toothpastes on in vitro *Streptococcus mutans* biofilm formation: a continuous culture study. *Am J Dent* 2014; 27(3): 160-166.
24. Brambilla E, Cagetti MG, **Ionescu A**, Campus G, Lingström P. An in vitro and in vivo Comparison of the Effect of Stevia rebaudiana Extracts on Different Caries-Related Variables: A Randomized Controlled Trial Pilot Study. *Caries Res* 2014; 48(1) 19-23.
25. Brambilla E, **Ionescu A**, Fadini L, Mazzoni A, Imazato S, Pashley D, Breschi L, Gagliani M. Influence of MDPB-containing primer on *Streptococcus mutans* biofilm formation in simulated class I restorations. *J Adhes Dent* 2013; 15(5): 431-438.
26. Brambilla E, **Ionescu A**, Gagliani M, Cochis A, Arciola CR, Rimondini L. Biofilm formation on composite resins for dental restorations: an in situ study on the effect of chlorhexidine mouthrinses. *Int J Artif Organs* 2012; 35(10): 792-799.
27. **Ionescu A**, Wutscher E, Brambilla E, Schneider-Feyrer S, Giessibl FJ, Hahnel S. Influence of surface properties of resin-based composites on in vitro *Streptococcus mutans* biofilm development. *Eur J Oral Sci* 2012; 120(5): 458-465.
28. Hahnel S, Mühlbauer G, Hoffmann J, **Ionescu A**, Bürgers R, Rosentritt M, Handel G, Häberlein I. *Streptococcus mutans* and *Streptococcus sobrinus* biofilm formation and metabolic activity on dental materials. *Acta Odontologica Scand* 2012; 70(2): 114-121.

29. Brambilla E, Gagliani M, Fadini L, **Ionescu A**, Garcia-Godoy F. The influence of light-curing time on the bacterial colonization of resin composite surfaces. *Dent Mater* 2009; 25(9): 1067-1072.