



# Academy of Osseointegration

Advancing the Vision of Implant Dentistry

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## FUTURE ANNUAL MEETINGS

**March 12 – 14, 2015**  
San Francisco, CA

**February 18 – 20, 2016**  
San Diego, CA

**March 16 – 18, 2017**  
Orlando, FL

29th Annual Meeting



**Seattle 2014**

**March 6-8**

*Real Problems,  
Real Solutions*

March, 2014

### TO WHOM IT MAY CONCERN:

This letter will verify that **Lih-Jyh Fuh, DDS, PhD** attended the 2014 Annual Meeting of the Academy of Osseointegration, March 6-8, 2014, at the Washington State Convention Center, Seattle, WA.

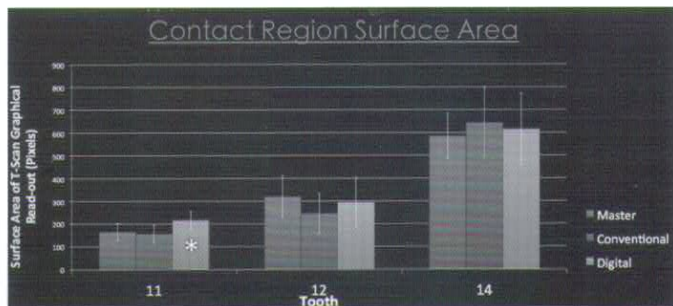
If you require any additional information, please feel free to contact me.

Thank you.

Sincerely,

Truman Adcock  
Director of Registration

# Poster Presentation Abstracts



## P112

### Automatic Angle Correction System for Dental Implant Periapical Radiographs

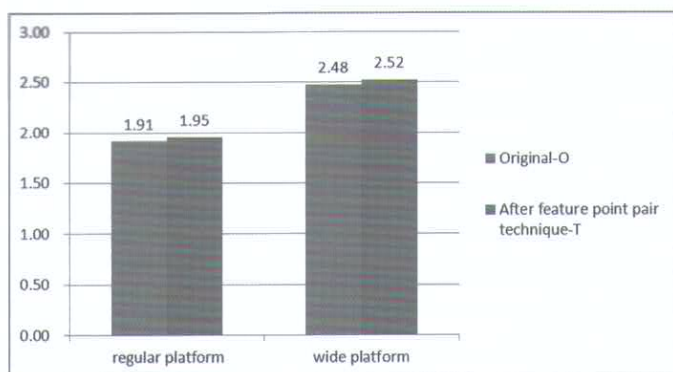
F. Lih-Jyh\*, Y. Shen, C. Da-Chuan Taichung, Taiwan.

**Introduction:** Periapical radiographs are commonly used measures for implant prostheses regular follow up to detect crestal bone changes for early correction of unfavorable load or other mechanical factors. However, these radiographs taken at different times are usually difficult to compare, especially in the posterior region, due to the angulation differences. Different align techniques were thus developed for reference orientation, eg, custom made film holders.

**Method:** An automatic mathematical correction system was developed by using image based feature point pair technique. A total of 30 periapical radiographs with dental implants (Branemark, regular platform: 11 and wide platform: 19) taken after second stage were corrected to the angle of the long axis of implants in corresponding reference films which were taken with cover screw in place. All images were calibrated using the known lengths of implants placed. The distance between the top 3 threads were measured in Image J software (NIH, Bethesda, MD, USA) for both radiographs before and after angle correction, and comparisons were made.

**Results:** Images corrected in the developed system were clearer with sharper outlines. There was no statistical significance for top 3 threads distance of implants between measurements from radiographs taken before and after angle correction.

**Conclusion:** The developed automatic mathematical angle correction system produced images comparable without significant distortion with clinical applicability!



## P113

### Antibacterial Effects of As-annealed TiO<sub>2</sub> Nanotubes Doped with Ag Nanoparticles against Tannerella Forsythia

S. Yeniyl\*, Z. He, B. Yüksel, R. Boylan, M. Urgen, J. Ricci Istanbul, Turkey.

**Introduction:** It is important to develop functional transmucosal implant surfaces that reduce the number of initially adhering bacteria. The first method is to inhibit the initial adhesion of oral bacteria. The second method is to inhibit the colonization of the oral bacteria, which involves surface antibacterial activity.

**Method:** A layer of TiO<sub>2</sub> nanotubes was developed on commercially pure Ti surfaces in electrolyte containing ethylene glycol, distilled water and ammonium fluoride at room temperature and TiO<sub>2</sub> nanotubes were then

annealed at 450 °C. This layer of as-annealed TiO<sub>2</sub> nanotubes was doped with Ag in electrolyte containing 41 g/l MgSO<sub>4</sub>.7H<sub>2</sub>O, 45 g/l H<sub>3</sub>BO<sub>3</sub>, 1.44 g/l AgNO<sub>3</sub> at 20 °C. The morphology of the as-annealed TiO<sub>2</sub> nanotubes and as-annealed Ag doped TiO<sub>2</sub> nanotubes were investigated by scanning electron microscopy and field emission scanning electron microscopy. The structure of the TiO<sub>2</sub> and corresponding orientations were characterized by X-ray diffraction. Antibacterial activity was assessed by investigation of adherence of Tannerella forsythia. Bacterial morphology was examined using a SEM.

**Results:** Amorphous TiO<sub>2</sub> films were crystallized into anatase after annealing at 450 °C in air for 30 min. As-annealed Ag doped TiO<sub>2</sub> nanotube layers resulted in intense peak of Ag. The results indicated the antibacterial efficacy of the as-annealed Ag doped TiO<sub>2</sub> nanotube layer in preventing Tannerella forsythia adhering to the transmucosal parts of the dental implants.

**Conclusion:** Considering the results of this study, the use of electrochemical anodization and Ag doping techniques allows control of the required antibacterial surface properties against Tannerella forsythia resulting in reproducible antibacterial coatings on transmucosal parts of dental implants.

## P114

### Short Dental Implants a Reality for Complex Cases

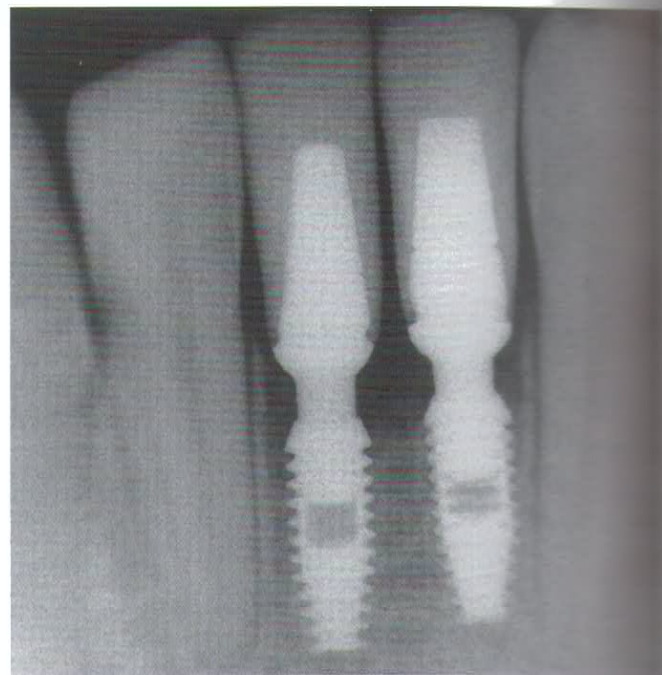
R.A. Kaiser\*, E. Varas, M. Antunez Santiago, Chile.

**Introduction:** To evaluate the performance of short implants in complex cases when the bone graft is the only traditional choice or when the space is limited.

**Method:** A retrospective cohort study was conducted between October 2009 and August 2013. The sample was composed of patients who had received at least one short Bicon implants on the National Institute of Oral Implantology, Santiago Chile.

**Results:** Forty subjects who received 124 implants were followed for an average of 47 months. One hundred fourteen implants (91.9%) were retained with single crowns. Four implants failed, for a cumulative survival rate of 96.7%. Of the failed implants, all were of 5 x 6.0 mm.

**Conclusion:** The survival of short implants was comparable with longer implants.



Integrated abutment crown over bicon short implants 3x8 millimeters height. The distance for the implants was 3.1 and 4.1, the interproximal size was 9 millimeters, and the distance of the implants was 2 millimeters below of the crestal bone.