

## Personal Information

- Marital status: Single
- Nationality: Egyptian
- Place of Birth: Cairo
- E-mail: [rehambosman@gmail.com](mailto:rehambosman@gmail.com)  
Reham.osman@dentistry.cu.edu.eg

## Qualifications

- **2000**

Bachelor of Dental Surgery (BDS) from the Faculty of Dentistry, Cairo University, Egypt.

- **2006**

Master of Science (MSc, Removable Prosthodontics) from the Faculty of Dentistry, Cairo University, Egypt.

- **2013**

Clinical Doctor of Philosophy (PhD) from the Faculty of Dentistry, University of Otago, Dunedin, New Zealand.

- **2014**

Post-Doctoral Fellowship, Oral Implantology and Prosthetic Department, *ACTA* (Academic Center of Dentistry Amsterdam), Amsterdam, The Netherlands

## Employment

- **September 2014-Present**

*ACTA* (Academic Center of Dentistry Amsterdam), Amsterdam, The Netherlands  
ITI Scholar, Department of Oral Implantology and Prosthetic Dentistry

- **November 2013 – Present**

Faculty of Dentistry, Cairo University, Egypt  
Senior Lecturer, full time, Department of Removable Prosthodontics.

- **January 2012 – August 2013**

Faculty of Dentistry, University of Otago, Dunedin, New Zealand  
Research assistant, Fixed-term, part time, Sir John Walsh Research Institute.

▪ **April 2011-September 2011**

Faculty of Dentistry, University of Otago, Dunedin, New Zealand.  
Exams supervisors, Disability Information and Support.

▪ **May 2007-Present**

Faculty of Dentistry, Cairo University, Egypt  
Associate Lecturer, full time, Department of Removable Prosthodontics.

▪ **May 2005- April 2007**

Faculty of Dentistry, Cairo University, Egypt  
Clinical Tutor for 3<sup>rd</sup> and 4<sup>th</sup> dental students, Full time, Department of Removable Prosthodontics  
Demonstrator in Simulation Clinics for 2<sup>nd</sup> year dental students, Full time, Department of Removable Prosthodontics

▪ **January 2002- April 2005**

Faculty of Dentistry, Cairo University, Egypt  
Resident, Department of Removable Prosthodontics.

▪ **January 2001-December 2001**

Dental centers of the Ministry of Health, Cairo, Egypt  
General Dental Practitioner, full time.

▪ **September 2000- December 2003**

Dr. Ziad's private clinic, Cairo, Egypt  
General Dental Practitioner, Part time.

## **Selected Peer-Reviewed Publications**

*Osman, R.B.*, Payne, A.G.T., Ma, S. Prosthodontic maintenance of maxillary implant overdentures: A systematic literature review. Int J Prosthodont 2012; 25: 381-391.

*Osman, R.B.*, Elkhadem, A.H., Ma, S., Swain, M.V. A finite element analysis of a novel implant distribution supporting maxillary overdentures. Int J Oral Maxillofac Implants; 2013; 28: e1-e10. Doi:10.11607/jomi.2303.

*Osman, R.B.*, Elkhadem, A.H., Ma, S., Swain, M.V. Titanium versus zirconia implants supporting maxillary overdentures. Three-dimensional finite element analysis study. Int J Oral Maxillofac Implants; 2013; 28: e198-e208. Doi:10.11607/jomi.3019.

*Osman, R.B.*, Payne, A.G.T., Ma, S., Duncan, W. Zirconia implants supporting overdentures: A pilot study with novel prosthodontic designs. Int J Prosthodont; 2013; 26: 277-281.

*Osman, R.B.*, Ma, S., Duncan, W., De Silva, R.K., Siddiqi, A., Swain, M.V. Fractured zirconia implants and related implant designs: scanning electron microscopy analysis. Clin Oral Implants Res; 2013; 5: 592-597.

*Osman, R.B.*, Morgaine, K., Duncan, W., Swain, M.V., Ma, S. Patients' perspectives on zirconia and titanium implants with a novel distribution supporting maxillary and mandibular overdentures: A qualitative study. Clin Oral Implants Res; 2014, 25: 587-597.

*Osman, R.B.*, Duncan, W., Swain, M.V., Ateih, M., Ma, S. Ceramic implants (Y-TZP): are they a viable alternative to titanium implants for the support of overdentures? A randomized Clinical Trial. Clin Oral Implants Res; 2014, 25: 1366-1377.

*Osman, R.B.*, Duncan, W., Swain, M.V., Ma, S. Prosthodontic maintenance of overdentures on zirconia implants: 1-year results of a randomized controlled trial. Int J Prosthodont; 2014, 27: 461-468.

*Osman, R.B.*, Swain, M.V., A critical review of dental implant materials with an emphasis on titanium versus zirconia. Materials; 2015, 8: 932-958.

K. Zygogiannis, R. Osman, I. Aartman, D. Wismeijer. A systematic review on immediate loading of implants used to support overdentures opposed by conventional prostheses: factors that might influence clinical outcomes. Int J Oral Maxillofac Implants. 2016; 31(1):63-72.

N. Alharbi, R. Osman, D. Wismeijer. Factors influencing the dimensional accuracy of 3D-printed full coverage dental restorations using stereolithography technology. Int J Prosthodont 2016; 29: 503–510.

N. Alharbi, R. Osman, D. Wismeijer. The effects of build direction on the mechanical properties of 3D-printed full coverage dental restorations. J Prosthet Dent. 2016; 115(6):760-767.

R. Osman, N. Alharbi, D. Wismeijer . Build angle, does it have an influence on the accuracy of 3D-printed dental restorations using digital light-processing technology? Int J Prosthodont 2017; 30:182–188.

N. Alharbi, R. Osman, D. Wismeijer. Additive manufacturing techniques in Prosthodontics, where do we currently stand? A Critical review. Int J Prosthodont; In Press

## **Conference Presentations**

### **July 2012**

Oral presentation entitled: “Zirconia implants, a paradigm shift or a passing fad.” at Biomouth Conference 2012. The University of Auckland, New Zealand

### **September 2011**

Poster presentation entitled: “A finite element analysis of a novel implant distribution supporting maxillary overdentures.” at International College of Prosthodontics (ICP), Kona, Big Island, Hawaii.

### **July 2010**

Oral presentation entitled: “Prosthodontic outcomes of ceramic implants supporting overdentures.” at Clinical Research Day, Oral Implantology Research Group, Sir John Walsh Research Institute, University of Otago, Dunedin, New Zealand.

## **Courses and Workshops**

### **August 2011**

An update on Nobel Biocare Implant Systems, Seminar series at Sir John Walsh Research Institute, University of Otago, Dunedin, New Zealand.

### **November 2010**

Word 2007 for Thesis Writing course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

### **July 2010**

Cone Beam Computed Tomography Seminar and workshop at Sir John Walsh Research Institute, University of Otago, Dunedin, New Zealand.

### **May 2010**

A Quick Intro to SPSS (PASW) course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

### **November 2009**

EndNote X3 Overview Course provided by Information Technology Services, IT Training Program, University of Otago, Dunedin, New Zealand.

### **February/March 2008**

A series of courses including: Communication skills, Presentation skills, The use of recent technology in teaching (E-learning), Scientific publishing courses as a part of continuous education, Cairo University, Cairo, Egypt.

## **Professional Memberships**

Member of International College of Prosthodontics (ICP)  
Member of Egyptian Dental Association

## **Research Experience**

- Conducting a controlled clinical trial to evaluate the clinical and prosthodontic outcomes of zirconia implants supporting overdentures, in the context of novel implant distributions.

- Performing a failure analysis of clinically fractured single-piece zirconia implants using standardized fractographic techniques.
- Qualitative analysis of patients' perspectives on zirconia and titanium implants with a novel distribution supporting maxillary and mandibular overdentures.
- A systematic review on the prosthodontic maintenance requirements of maxillary implant overdentures.
- Proposal of novel implant distributions for the support of overdentures and the rationale behind such distributions.
- An in-vitro study comparing the biomechanical behavior between zirconia and titanium implants supporting maxillary overdentures using finite element analysis.
- An in-vitro study comparing the biomechanical behavior between conventional and novel suggested distribution of zirconia implants supporting maxillary overdentures using finite element analysis and strain gauge techniques.

### **Future research projects**

- Evaluating the possible use of cone beam computed tomography in determination of bone density using standardized density radiographic markers for implant overdenture patients.
- Evaluating the accuracy of the digital planning for surgical placement of one-piece zirconia implants.

**A reviewer for the *Journal of Dentistry***

**A reviewer for the *Journal of Prosthetic Dentistry***

**A reviewer for the *Australian Dental Journal***

### **Research Support**

#### **2015**

ITI-Research Grant for conducting a clinical research evaluating the accuracy of digital planning for the surgical placement of one-piece zirconia implants (€ 136,000 awarded, implants and implant components)

#### **2009**

Southern Implant Ltd, Irene, South Africa (Implants & implant components, NZ \$80,000 awarded).

#### **2011**

Kate Sheppard Memorial Award Trust (NZ \$ 2, 500 awarded).

### **Prizes and Awards**

#### **September 2014**

ITI Scholarship

#### **January 2013**

Article “Patients' perspectives on zirconia and titanium implants with a novel distribution supporting maxillary and mandibular overdentures: a qualitative study” in \*Clinical Oral Implants Research\* was featured on the MDLinx.com website for being the most read article that matter in the daily lives of dentists physicians, other healthcare professionals and patients.

### **October 2013**

Article “Ceramic implants (Y-TZP): are they a viable alternative to titanium implants for the support of overdentures? A randomized clinical trial” in \*Clinical Oral Implants Research\* was rated on the MDLinx.com website by physician editors as being the number one article among all other dentistry articles published during that month.

### **2009**

University of Otago Prestigious Doctoral Scholarship

## Referees

### **Professor Michael V. Swain**

BSc (Hon), PhD (Sydney)  
Head of Discipline of Biomaterials  
Professor in Biomaterials  
Oral Implantology Research Group  
Sir John Walsh Research Institute  
School of Dentistry, University of Otago  
Dunedin, New Zealand

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310 Great King Street, Dunedin, New Zealand  
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[michael.swain@sydney.edu.au](mailto:michael.swain@sydney.edu.au)

### **Dr. Mo'men Atieh**

BDS (Jordan), MSc (Manchester), PhD (Otago)  
Professional Practice Fellow (Otago)  
D Clin Dent Candidate (Periodontology)  
Department of Oral Sciences  
School of Dentistry, University of Otago  
Dunedin, New Zealand  
Telephone: +64 21 1878327  
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### **A/Prof. Warwick Duncan**

BDS (Otago), MDS (Otago), PhD (Otago), FRACDS  
Head of the Oral Implantology Research Discipline  
Associate Professor in Periodontics  
Oral Implantology Research Group  
Sir John Walsh Research Institute  
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