



# dentistry annual report 10/11

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REPORT 2010/11

# A CHEN CHEN CHEN CHEN CHEN CHEN



In AY 2010, the Faculty focused on building our research capability and alumni relations. In education, there is an on-going curriculum review which will complete in AY2011.

The recruitment of academics and scientists is challenging, as there is a worldwide shortage of dental academics. We managed to modestly increase our numbers of clinician-scientists and scientists, and we will continue to actively grow and nurture our research talents.

We will need to create new knowledge which impacts oral health and better ways to deliver care. The types of research that we do should answer questions with clinical impact and applications in industry. We celebrate with A/P Stephen Hsu that his paper, "Building Caries Risk Assessment for Children", won the William J. Gies award at the prestigious International Association of Dental Research meeting. Our new researchers have been busy and some have been successful in securing external grants within their first year with us. This is indeed encouraging.

Fostering alumni relations was a priority in 2010. We held our inaugural alumni dinner in September. It was well received by alumni and this will now be an annual affair. Our alumni have been very generous, supporting us with their talent and time, coming in as teachers, mentoring our students in their own clinics and through their generous donations enabled the Faculty to support student bursaries and other activities. Alumni should always feel part of the school, we value alumni feedback and will continue to seek ways to make alumni feel at home in the Faculty.

As we continue to work towards our academic mission, education will see changes in the next academic year and there are plans for infrastructure development.

A/P Grace Ong Hui Lian
Dean

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#### **VISION**

To be a dental institution of international distinction

#### **FACULTY MISSION**

Improve oral health through academic excellence, high impact research and quality clinical service



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# **01. A/P Grace Ong Hui Lian**Dean & Head, Department of Preventive Dentistry

# **02.** A/P Kelvin Foong Weng Chiong Vice Dean (Academic Affairs)

# **03.** A/P Cao Tong Vice Dean (Research)

# **04.** A/P Jennifer Neo Chiew Lian Vice Dean (Clinical Affairs) & Head, Department of Restorative Dentistry

# **05. Professor Chew Chong Lin**Director, Division of Graduate Dental Studies

#### **06.** A/P Yeo Jin Fei Head, Oral & Maxillofacial Surgery



#### TRENDS IN GIVING TO DENTISTRY

There has been a healthy trend over the past few years for dental alumnus and other organisations to give to the Faculty for development and student support. This has been marked by generous donations.

To honour her father, a respected oral surgeon and an alumnus of NUS, who passed away in 1997, Dr Helena Lee donated \$20,000 to set up a gold medal and prize for the Faculty. Known as the Henry Lee T L Medal & Prize in Oral and Maxillofacial Surgery, it will be awarded to the best student with Distinction in Oral and Maxillofacial Surgery in the final Masters of Dental Surgery Examination. Says Dr Helena Lee, "The relative who sponsored my father's education never accepted repayment. Now I would like to pay it forward. Hopefully, this gift will inspire future dentists to bring the field of oral surgery to new heights."



Taken in 1996, (from left): Dr Joseph Lee, Dr Henry Lee, Mrs Jenny Lee, and Dr Helena Lee (at Henry Lee Dental Surgery, now known as Specialist Dental Group)

Colgate Palmolive (Eastern) Pte Ltd contributed an endowed gift of \$75,000 towards a Medal for Microbiology.



From left: Ms Ying Soo Wai, Colgate Palmolive; Dean A/P Grace Ong, Faculty of Dentistry; Mr Issam Bachaalani, Managing Director, Colgate Palmolive; Mr Adi Manor, Colgate Palmolive

Matthew Sng (Class of 2011) had this to say: "When I found out about the opportunity to become a Commencement Class Champion, I realised it was my chance to lend a helping hand to my juniors and throw my weight behind a long held belief of mine – that no deserving student should be denied a good education." Due to Matthew's encouragement his entire class donated to the Commencement Class Campaign, where gifts received go towards funding bursaries, scholarships or student development activities.

#### **INAUGURAL ALUMNI REUNION**

More than 100 alumni from various graduating classes, some dating as far back as 1962, attended the inaugural Alumni Reunion Dinner held at the Faculty's rooftop garden in September 2010.



Alumni from the Class of 81

Jointly organised with the Dental Guild, the activities that evening included informal tours for the alumni to view the Faculty's latest clinic and lab facilities, and karaoke sessions for dental crooners. The alumni had a great opportunity to renew old friendships and create new acquaintances.



The alumni cohorts had a great time catching up

#### 9th NUS-SDA DISTINGUISHED VISITOR: PROFESSOR MICHAEL GLICK

The 9<sup>th</sup> NUS-SDA Distinguished Speaker was Professor Michael Glick, DMD (below), currently Professor of Oral Medicine and Dean, School of Dental Medicine, University of Buffalo, USA.

Prof Glick visited Singapore from 10 - 12 April 2010. The program kicked off with a full-day programme on 10<sup>th</sup> April at Sheraton Towers, Singapore. He spoke to a capacity crowd of over 250 participants on the topic "Assessment and Treatment Protocols for the Medically Complex Dental Patient".



He also conducted a full two-day programme of lectures, seminars, and discussions for residents, postgraduates, clinicians, academic staff and adjuncts at the faculty premises on 11- 12 April. Topics covered ranged from "The Oral Medicine Connection", " Challenging Established Dental Protocols" to "HIV Disease and Oral Manifestations of HIV. The highlight was a half-day session on "How to get your study published in a Peer Reviewed Journal" where Prof Glick shared hard-won insights and humorous tips based on his eight years experience as editor of JADA.



From left: Dr Catherine Hong, Prof Dr Michael Glick, Dr Edwin Heng

#### **SUBSIDISED CARE**

In January 2011, to meet the increasing demand for subsidised tertiary dental services, the University Dental Cluster commenced subsidised dental services for selected procedures.





#### WILLIAM J. GIES AWARD FOR CLINICAL DENTAL RESEARCH

AVP Stephen Hsu received the prestigious 2011 William Gies Award by the International Association for Dental Research (IADR) and American Association for Dental Research (AADR) for Clinical Dental Research, on March 16<sup>th</sup>, 2011 at San Diego, California.

The Award was for A/P Hsu's clinical dental research entitled, "Building Caries Risk Assessment Models for Children". The William J. Gies Award is given for the best paper published in the Journal of Dental Research in the various clinical research categories.

A/P Stephen Hsu and his team have been monitoring caries trends in Singapore for the past 10 years and identified pertinent risk factors and indicators. They then developed and validated a caries risk assessment (CAR) model. The team completed a prospective longitudinal community based study with a carries risk assessment (CRA) model of 90% accuracy. His research paper was published in the Journal of Dental Research (Volume 89: 637-43, 2010).

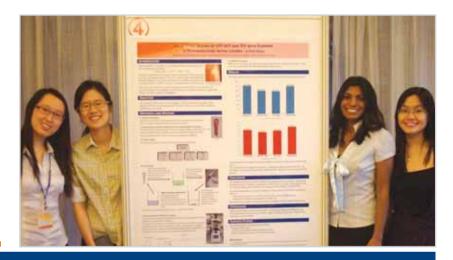


A/P Stephen Hsu receiving the award from Maria Fidela de Lima Navarro and David T. Wong at the IADR meeting on March 16th, 2011 in San Diego, USA

#### **SEAADE AND IADR SEA DIVISION**

In 2010, the South East Asia Association for Dental Education (SEAADE) and the International Association for Dental Research South East Asia (IADR SEA) Division were held in Taipei, Taiwan, from 19-21 September 2010.

Staff members and students were privileged to be part of this significant event to showcase their research work through oral and poster presentations. The Faculty's team did exceptionally well and bagged three major awards.



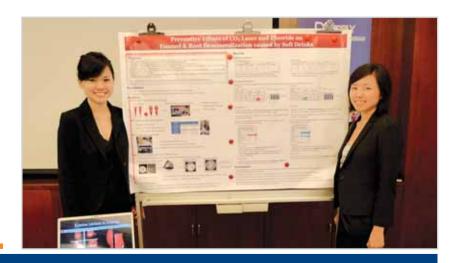
From Left: Dr Wang Yuan, Dr Sophia Yee, Dr Ruebini Anandarajan and Dr Stephanie Neo

Winner: Dr Wang Yuan

**Supervisor**: A/P Hien Chi Ngo

**Award:** Gold Medal - GC Student Table Prevention Competition **Topic:** An in vitro testing of CPP-ACP and TCP with Fluoride in

Remineralizing Initial Lesions – A Pilot Study



From Left: Dr Sheralyn Quek and Dr Cindi Ho

Winner: Dr Quek Hui Qi Sheralyn & Dr Ho Shu Jun Cindi

**Supervisor**: A/P Stephen Hsu

**Award**: Second Prize – Dentsply Student Clinician Program

**Topic**: Preventive effects of CO2 laser on enamel & root demineralization

caused by Yakult



Winner: A/P Stephen Hsu

Award: Best Poster Award – Education Research

Presentation

**Topic**: Changing Students' Values and Learning Attitude

Through a Hospice Fieldtrip

#### **CHARLES AND ELEANOR KNOWLES RESEARCH PRIZE**



In September 2010, Dr Tong Huei Jinn, Dept of Preventive Dentistry, was presented with the Charles and Eleanor Knowles Research Prize from the University of Leeds for her thesis titled "An Investigation into the Dental Health of Children with Obesity".

Her research concluded that obese children were 26 times more likely to have significantly higher levels of dental erosion, especially on the anterior teeth. As a result, their frequent consumption of carbonated soft drinks and snacking on acidic foods, obese children may also face increased risk of gastroesophageal reflux associated with increased intra-abdominal pressure.

#### **EUROPEAN ORTHODONTIC SOCIETY POSTER AWARD**



In June 2011, Dr Enrica Sham Pui Yin was awarded the European Orthodontic Society Poster Award at the 87<sup>th</sup> Congress of the European Orthodontic Society held at Istanbul, Turkey.

The poster entitled "Airway Dimensions and Vertical Face Height - A Magnetic Resonance Imaging Study" was part of her master thesis research. This involved examining the head and neck Magnetic Resonance Imaging (MRI) records of 40 human subjects, to determine if there was a correlation between the anterior face height and airway dimensions.

This poster was the result of the research work carried out under her MDS thesis supervised by A/P Kelvin Foong.

### UROP DAY 2010

The purpose of the Undergraduate Research Opportunities Programme (UROP) is to encourage and increase research interest in undergraduate students within the Faculty. Guided by supervisors, the topics range from clinical and epidemiological surveys to bench top research in areas ranging from dental materials to stem cells.

The programme commences in Year 2 and lasts for about two years. A final research report has to be submitted at the end of the programme and students will then present their research findings during UROP Day.

UROP Day 2010 was held on 19 November 2010. A total of 10 groups presented their findings to a panel of judges comprising of Prof Murray Meikle, Dr Amr Fawzy and Dr Chang Po-Chun. The results of the competition were as follows:

RANKING	SUPERVISOR(S)	STUDENTS	PROJECT TITLE
1 <sup>st</sup>	A/P Cao Tong A/P Yeo Jin Fei	1) Huang Shiming 2) Koo Chieh Shen 3) Lu Weixun Wilson 4) Luo Yu'en	Characterization of Oral/Dental Fibroblasts from Human Embryonic Stem Cells
2 <sup>nd</sup>	A/P Kelvin Foong A/P Keng Siong Beng Dr Rahul Nair	1) Goh Aik Wei 2) Huang Shuyan 3) Lim Wei Ying Justine 4) Lim Wen Yi	The Functionality of Three CBCT Viewing Software on the Evaluation of Impacted Maxillary Canines
3 <sup>rd</sup> (Tie)	A/P Yeo Jin Fei A/P Kelvin Foong A/P Keng Siong Beng	<ol> <li>Phang Minle Valene</li> <li>Tan Wan Yi</li> <li>Xu Meiling Charmaine</li> <li>Yap En Jia Stephanie</li> </ol>	Pushing Educational Boundaries - Is 3D Interactive Computer Assisted Learning More Effective as a Pedagogical Tool Than Traditional Educational Setting?
3 <sup>rd</sup> (Tie)	Dr Intekhab Islam A/P Adrian Yap	1) Sng Tiap Ching Matthew 2) Tsai Xu Hui Karen 3) Tong Hei Mun Annabelle 4) Tan Wei-Quan Nicholas	The association Between Self- Reported Temporomandibular Disorder Symptoms And Psychological Socio Demographic Factors

#### **WINNER**

From left: A/P Yeo Jin Fei, Koo Chieh Shen, Luo Yu'en, Huang Shiming, Lu Weixun Wilson, PG Student Fahad Karim and A/P Cao Tong



#### 1st RUNNER UP

From left: A/P Keng Siong Beng, Goh Aik Wei, Lim Wei Ying Justine, Lim Wen Yi, Huang Shuyan and Dr Rahul Nair



### RESEARCH HIGHLIGHIS

#### PHD PROJECT

Project Title: Differentiation and derivation of lineage-committed

chondroprogenitors and chondrogenic cells from human embryonic stem cells for cartilage tissue engineering and

regeneration

Student: Toh Wei Seong
Supervisor: A/P Cao Tong

#### **Background**

Articular cartilage repair is problematic due to its poor self-regenerative ability. Cell-based therapies and tissue engineering show great potential for cartilage repair. Human embryonic stem cells (hESCs) represent a promising cell source for regenerative medicine because of their unlimited self-renewal and ability to differentiate into various somatic cell lineages. However, major challenges impeding clinical application of hESCs included issues of tumorigenicity and functionality upon transplantation. To date, there is still limited understanding of the factors, signals, and even the environment necessary to induce hESCs to specifically differentiate into the chondrogenic lineage. Furthermore, few studies have explored the potential of hESCs and its derivatives for cartilage tissue engineering. In addition, the ability and fate of these hESC-derived cells in cartilage repair has not yet been addressed.

#### Results

A well-defined full-span chondrogenesis from chondrogenic induction to hypertrophic maturation was observed in hESC-derived embryoid bodies plated as a high-density micromass system. TGFB1 was identified as the optimal growth factor for chondrogenic differentiation of hESCs, with highest level of cartilage matrix synthesis and differentiation index (Col II/Col I). Lineage-restricted hESC-derived chondrogenic cell lines were derived and demonstrated to be expandable, homogenous and unipotent in differentiation potential. hESC-derived chondrogenic cells were used in cartilage tissue engineering with hyaluronic acid hydrogels to construct clinical-relevant cartilage tissue constructs. The transplanted hESC-derived chondrogenic cells maintained long-term viability up to 12 weeks and no evidence of tumorigenicity were observed in both orthotopic and ectopic transplantations.

#### Conclusion

This study demonstrates a progressive advancement from basic science of establishing hESCs as the model system to study chondrogenesis, understanding the role of signaling growth factors in chondrogenesis to translational applications of deriving potentially clinically-compliant chondrogenic cell lines for cartilage tissue engineering and regeneration. This study demonstrates a safe, highly-efficient and practical strategy of applying hESCs for cartilage regeneration and may assist in future strategies to treat cartilage-related diseases such as osteoarthritis.

#### **Project Achievements**

- President Graduate Fellowships, four academic years Aug 2006 Feb 2010
- A\*STAR International Fellowship, in Harvard Medical University Aug 2010 Jul 2012

#### Results

In Phase 1, a well-defined full-span chondrogenesis from chondrogenic induction to hypertrophic maturation was observed in hESC-derived embryoid bodies plated as a high-density micromass system. These findings verified hESCs as a model system for study of chondrogenesis as well as its chondrogenic potential for cartilage repair. In Phase 2, TGFß1 was identified as the optimal growth factor for chondrogenic differentiation of hESCs, with highest level of cartilage matrix synthesis and differentiation index (Col II/Col I). In Phase 3, lineage-restricted hESC-derived chondrogenic cell lines were derived and demonstrated to be expandable, homogenous and unipotent in differentiation potential. These cells were functional, as demonstrated by cartilage tissue formation in conventional pellet system. In addition, they were stable with normal somatic cell cycle kinetics and karyotype even after cryopreservation. In Phase 4, hESC-derived chondrogenic cells were used in cartilage tissue engineering with hyaluronic acid hydrogels to construct clinical-relevant cartilage tissue constructs, which upon implantation, observed an orderly spatial-temporal remodeling over 12 weeks into osteochondral tissue, marked by development of characteristic architectural features including a hyaline-like neocartilage layer with complete integration with the adjacent host cartilage and a regenerated subchondral bone. The transplanted hESC-derived chondrogenic cells maintained long-term viability up to 12 weeks and no evidence of tumorigenicity were observed in both orthotopic and ectopic transplantations.

#### Conclusion

In conclusion, this study demonstrates a progressive advancement from basic science of establishing hESCs as the model system to study chondrogenesis, understanding the role of signaling growth factors in chondrogenesis to translational applications of deriving potentially clinically-compliant chondrogenic cell lines for cartilage tissue engineering and regeneration. This study demonstrates a safe, highly-efficient and practical strategy of applying hESCs for cartilage regeneration and may assist in future strategies to treat cartilage-related diseases such as osteoarthritis.

#### **Project Achievements**

- 1. President Graduate Fellowships, four academic years Aug 2006 Feb 2010
- 2. A\*STAR International Fellowship, in Harvard Medical University Aug 2010 Jul 2012

#### **UROP 2010 WINNING GROUP**

**Project Title**: Characterization of Oral/Fibroblasts from Human Embryonic

Stem Cells

**Group Members**: Huang Shiming, Koo Chieh Shen, Lu Weixun, Wilson and

Luo Yu'en

**Supervisor**: A/P Cao Tong **Co-Supervisor**: A/P Yeo Jin Fei

This project was awarded the Outstanding Undergraduate Researcher Prize (Group Category) AY2010/11

#### Objectives

To characterize human embryonic stem cells (hESCs) derived fibroblasts (H9-ebF). To investigate the expression of dermal, gingival or periodontal ligament (PDL) specific markers by H9-ebF.

#### **Materials and Methodology**

In our preliminary study qualitative and quantitative characterization of H9-ebF was done. The qualitative analysis of Osteopontin, Fibromodulin and Lumican gene expression was confirmed by Reverse Transcription-Polymerase Chain Reaction (RT-PCR). For quantitative analysis real time RT-PCR was done. ATCC cell line CRL-1486 was taken as a positive control

#### Results

Agarose gel analysis following RT-PCR revealed distinct expression of dermal fibroblast markers Lumican and Osteopontin. PDL fibroblast marker Fibromodulin was found depleted. Further quantitative analysis by real time RT-PCR showed that H9-ebF had a higher expression of Osteopontin and a lower expression of Fibromodulin compared to control cell line CRL 1486.

#### Conclusion

The results suggest that H9-ebF seems to resemble dermal fibroblasts.

#### **RT & REAL TIME - PCR**













A/P Cao Tong

Project Title: Utilizing Differentiated Progenies of Human Embryonic

Stem Cells for Cytotoxicity and Genotoxicity Screening of Dental and Biomedical Products

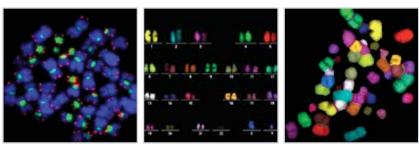
**Principal Investigator**: A/P Cao Tong **Total Project Value**: S\$179,850

#### **Summary/Achievements**

The team has successfully made global impacts. We reported the world first study that the differentiated progenies of human embryonic stem cells were innovatively utilized for toxicology screening. The team also published the global dentistry first work that human embryonic stem cells were innovatively utilized for the genotoxicity study and test of dental and medical drugs or materials. Besides, we reported the world first study that human embryonic stem cells and progenies were innovatively utilized for disease study. Other works reported are as following: Differentiation and Enrichment of Expandable Chondrogenic Cells from Human Embryonic Stem Cells in Vitro; Autologous feeder cells from embryoid body outgrowth support the long-term growth of human embryonic stem cells more effectively than those from direct differentiation; A subpopulation of mesenchymal stromal cells with high osteogenic potential; Cartilage repair using hyaluronan hydrogel-encapsulated human embryonic stem cell-derived chondrogenic cells.

It is important to note that Europe and United States have recently initiated the similar strategy. EU Embryonic Stem cell-based Novel Alternative Testing Strategies (ESNATS, EU) has since 2008 been developing a novel toxicity test platform based on hESC to accelerate drug development, reduce related R&D costs and propose a powerful alternative to animal tests. In 2007, The UK Government decided to establish a public-private partnership to develop predictive toxicology tools for stem cell lines. Department of Health UK has started the program of Stem Cells for Safer Medicines (SC4SM) to enable the creation of a bank of stem cells, open protocols and standardised systems in stem cell technology that will enable consistent differentiation of stem cells into stable homogenous populations of particular cell types, with physiologically relevant phenotypes suitable for toxicology testing in high throughput platforms. In 2009, GE Health and Geron in US have jointly initiated the strategy to develop and commercialize cellular assay products derived from hESCs for use in drug discovery, development and toxicity screening.

#### Chromosome-genetic analysis of hESC



PNA - FISH Karyo M - FISH



A/P Keson Tan

**Project Title**: Accuracy of Fit of Implant-Abutment Systems Interfaces

**Principal Investigator**: A/P Keson Tan Beng Choon **Collaborators**: Dr Tapan N Koticha

**Total Project Value**: S\$47,520

#### **Summary/Achievements**

Implant prostheses misfit can cause excessive stress levels in implants and prosthetic components in clinical service. This misfit arises from 2 sources- 1) distortion introduced during the clinical and laboratory stages of prosthesis fabrication; and 2) the machining tolerance/inaccuracy of manufactured components. Coordinate Measuring Machine (CMM) metrology was used to define the tolerance of the interfaces of newer implant-abutment systems like internal connections, CAD-CAM or prefabricated zirconia (Zr) abutments as well as the conical implant-abutment interfaces. In addition, the tolerance of implant to impression coping to implant analog to abutment combination interfaces of these newer systems was also measured. Identification of problematic tolerance levels and definition of these transfer inaccuracies in terms of x, y and z linear displacements as well as x, y and z rotational displacements will provide relevant information in assessing the clinical service performance of implant components.

External and Internal Connection Butt-fit Interfaces: Translational displacements fit accuracy of 4 implant systems with external and internal connection interfaces (Branemark, Replace Select System and 3i Osseotite & 3i Osseotite Certain) as well as CAD-CAM fabricated Zr abutments were compared for 4 interface combinations: implant (IMP) to impression copings (IC), impression coping (IC) to implant replica(IR), implant replica (IR) to Zr abutments (ZrA), abutment (ZrA) to implant (IMP).

There were significant differences between systems when each interface was considered separately. For the IMP–IC and IR–IC interfaces, the 3i Osseotite system showed the highest displacements and for the IR–ZrA and IMP–ZrA interfaces, the Replace Select system showed the highest displacements. It was concluded that implant systems and interfaces had a significant effect on translational displacement of prefabricated components. Irrespective of the system, the translation direction did not have an effect on the displacement. The interfaces involving the Zr abutment for the Replace Select system showed significantly higher displacements than all other interfaces measured and was related to the system's specific abutment connector design. There exists a definite range of machining tolerances for all prefabricated components which would contribute to the overall misfit for any prosthesis and therefore may be a significant factor in clinical complications.

#### **Conical Interfaces**

The fit accuracy of new implant-conical abutment system components (platform switching and concave emergence profile for esthetic maintenance of soft tissue cuff concepts) was studied. 3 systems with conical metal and Zr abutments were investigated – Straumann Bone Level, Lifecore PrimaConnex and Ankylos Plus and selected components for 6 conical interfaces: implant (IMP) – titanium abutment (TiA), implant (IMP) – zirconia abutment (ZrA), implant (IMP) – impression coping (IC), implant analog (AN) – titanium abutment (TiA), implant analog (AN) – zirconia abutment (ZrA) and implant analog (AN) – impression coping (IC).

DISPH was defined as the total displacement 10mm above the implant platform/bone level corresponding to the location at approximately the occlusal plane. The metal and Zr abutments were compared. Mean rotation angles varied from the lowest at 0.0633° for the Ankylos Plus Imp-ZrA group to the highest at 0.8390° for the Lifecore PrimaConnex AN-TiA group. Mean DISPH values varied from the lowest of 15.9 µm for the Ankylos Plus IMP-ZrA group to the highest of 218.9 µm for the Lifecore PrimaConnex AN-TiA, Systems and interfaces were found to have significant effects on both the rotation angle and the corrected total displacement. The directions of displacement were found to have no significant effect. There were significant differences between implant systems when each of the 6 interfaces were considered separately. The Ankylos Plus and the Straumann ITI Bone Level system were found to consistently show significantly smaller rotation angles and corrected total displacement at all 6 interfaces when compared to the Lifecore PrimaConnex system. The smallest rotation angle and corrected total displacement were provided by IMP-ZrA interface of the Ankylos Plus system. The rotation of the upper component was found to be significant in these new implant-conical abutment designs as manifested in the total displacements of the upper components.

With the new displacement parameters relevant to the conical abutment interfaces that were developed, the level of distortion or inaccuracy of systems and interface connections can be defined with clinical relevance. There is scope for the elucidation of further implant component fit-accuracy issues, especially with the rapid proliferation of new system interface designs and abutment fabrication methods.



# ENROUNENT & GRADUATION STATISTICS FOR AY2010/11

#### STUDENT ENROLLMENT

#### Undergraduate



YEAR OF STUDY	ENROLLMENT
1	48
2	49
3	43
4	42
Total	182

#### Postgraduate (Coursework)

SPECIALISATION	YEAR 1	YEAR 2	YEAR 3	TOTAL
MDS (Endodontics)	2	0	3	3
MDS (Oral & Maxillofacial Surgery)	2	0	1	1
MDS (Orthodontics)	5	5	3	8
MDS (Periodontology)	4	2	2	4
MDS (Prosthodontics)	0	2	1	3
Total	13	9	10	19

#### Postgraduate (Research)

DEGREE	TOTAL	
MSc	2	
PhD	5	
Total	7	

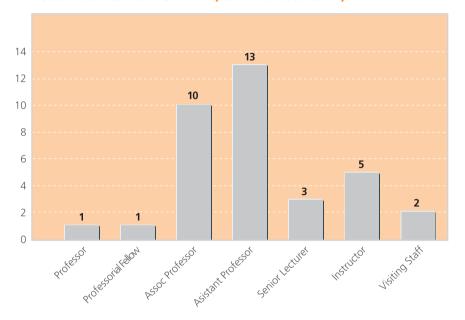
#### Graduation

PROGRAMME	TOTAL
BDS	42
MDS (Endodontics)	3
MDS (Oral & Maxillofacial Surgery)	1
MDS (Orthodontics)	3
MDS (Periodontology)	2
MSc	2
GDDI	5
PhD	4
Total	62



# CONTRACTOR CONTRACTOR

#### **FULL TIME ACADEMIC STAFF (AS AT MARCH 2011)**



The Faculty also had 203 part time appointments (adjunct staff, CFS and part time teachers).

# FULL TIME ADMINISTRATIVE, PROFESSIONAL AND NON-ACADEMIC STAFF (AS AT MARCH 2011)

DENTAL CLINICS	
Laboratory Technologist	2
Operations Associate	4
Specialist Associate	5
IT SUPPORT	
Laboratory Technologist	1
Specialist Associate	2
LABORATORY	
Laboratory Technologist	15
OFFICE ADMINISTRATION	
Executive & Professional	8
Management Assistant Officer	12
Operations Associate	2
RESEARCH LABORATORIES	
Laboratory Technologist	2
Total	53

#### **AY2010/11 ACADEMIC STAFF**

#### **ORAL & MAXILLOFACIAL SURGERY**

#### **STAFF**

Assoc Professor Yeo Jin Fei

Assoc Professor Cao Tong

Prof Loh Hong Sai

Dr Intekhab Islam

Dr Ow Tjin-Chiew, Andrew

Dr Gao Qinghong (Visiting Senior Fellow)

#### PREVENTIVE DENTISTRY

#### **STAFF**

Assoc Professor Ong Hui Lian, Grace

Assoc Professor Foong Weng Chiong, Kelvin

Assoc Professor Hsu Chin-Ying, Stephen

Assoc Professor Lim Lum Peng

Assoc Professor Yee Ting Fai, Robert

Professor Murray Clyde Meikle (Visiting Professor)

Dr Chang Po-Chun

Dr Fu Jia Hui

Dr Goh Enhui, Charlene

Dr Hong Hsu Ling, Catherine

Dr Hu Shijia

Dr Li Xiaobing

Dr Mah Kuan Seet, Michael

Dr Mok Yuen Yue, Betty

Dr Rahul Nair

Dr Tan Kai Soo

Dr Tong Huei Jinn

#### **RESTORATIVE DENTISTRY**

#### **STAFF**

Assoc Professor Neo Chiew Lian, Jennifer

Professor Chew Chong Lin

Assoc Professor Keng Siong Beng

Assoc Professor Tan Beng Choon, Keson

Dr Amr Sherif Fawzy Mohamed Fawzy

Dr Khoo Tuo Sheng, Joel

Dr Loke Weiqiang

Dr Mok Yuen Pun, Clara

Dr Ng Chai Hoon, Clarisse

Dr Ngo Uy Joanne

Dr Thean Pik Yen, Hilary

Dr Yu Soo Hoon, Victoria

#### **VISITING PROFESSORS**



#### **Professor Harold Messer, University of Melbourne**

Professor Emeritus at the School of Dental Science, University of Melbourne, Australia, from 5 July 2010 to 13 August 2010 and 15 November 2010 to 10 December 2010



#### Professor Christopher Alan Squier, University of Iowa

Professor and Director of Graduate Studies at the College of Dentistry, University of Iowa, US, from 15 July 2010 to 12 August 2010



#### Professor John Andrew Hobkirk, University of London

Emeritus Professor of Prosthetic Dentistry, University of London, UK, from 24 July 2010 to 29 August 2010



#### Professor Abdel Rahim Mohammad, Ohio State University

Professor of Geriatric Dentistry and Oral Medicine and Director of Geriatric Dental Program and Tobacco Cessation Clinic, College of Dentistry, Ohio State University, US, from 1 September 2010 to 30 September 2010



#### Professor Gunnar Robert Ivar Bergenholtz, Goteborg University

Emeritus Professor of The Sahlgrenska Academy, Goteborg University, Sweden, from 11 January 2011 to 27 March 2011



#### **Professor Jack Nicholls**

From 15 January 2011 to 4 April 2011

#### STUDY VISIT BY SHANGHAI JIAO TONG UNIVERSITY

A delegation of 13 specialists from the Shanghai Jiao Tong University (SJTU) visited the Faculty on 14 to 18 November 2010. Led by Professor Zheng Jia Wei, Vice Dean of the College of Stomatology, the SJTU delegates participated in an intensive two-day Problem-Based Learning (PBL) study program led by A/P Grace Ong and A/P Lim Lum Peng.



AIP Kelvin Foong, Vice Dean (Academic Affairs) conducting a tour of the Faculty's facilities to the SJTU delegates



SJTU delegates sitting in a PBL class conducted by Dr Peter Yu (centre, with vest)

#### **LEADERSHIP POSITIONS IN INTERNATIONAL & REGIONAL ORGANISATIONS (AY2010/11)**

NAME	DESIGNATION(S)	ORGANISATION(S)
A/P Kelvin Foong	President	International Association for Dental Research (IADR) Southeast Asian Division
Dr Catherine Hong	Chair	American Academy of Pediatric Dentistry Journal-Based Continuing Education Committee
	Consultant	American Board of Pediatric Dentistry, Examination Committee
A/P Keng Siong Beng	Councillor/Webmaster	South East Asia Association for Dental Education (SEAADE)
A/P Lim Lum Peng	Committee Member	South East Asia Association for Dental Education (SEAADE)
Prof Loh Hong Sai	Chairman, Asia Pacific Division	World Federation for Laser Dentistry
Dr Michael Mah	Secretary	International Association for Dental Research (IADR) Southeast Asian Division
Prof Murray Clyde Meikle	Editorial Board of The Surgeon	The Journal of the Royal Colleges of Surgeons of Edinburgh and Ireland
Dr Betty Mok	Board of Directors	Pediatric Dentistry Association of Asia
A/P Grace Ong	Consultant	Peer Review and Consultation Programme, South East Asia Association for Dental Education (SEAADE)
A/P Yeo Jin Fei	President	College of Dental Surgeons, Singapore
	Dental Regional Advisor (Overseas)	Faculty of Dental Surgery, Royal College of Surgeons of Edinburgh
	International Councilman	International College of Dentists (ICD) Council
	Regent	International College of Dentists (ICD) Section XX Region 25 (Singapore, Indonesia & Brunei)
	Councillor	Asian Association of Oral & Maxillofacial Surgeons

#### **BOARD MEMBERSHIP IN LOCAL/GOVERNMENT AGENCIES (AY2010/11)**

NAME	DESIGNATION(S)	ORGANISATION(S)
A/P Cao Tong	President	International Association for Dental Research (IADR) Singapore Section
Dr Chang Po-Chun	Vice-President	International Association for Dental Research (IADR) Singapore Section
Prof Chew Chong Lin	Member, Dental Specialist Accreditation Board	Ministry of Health
	President	Singapore Dental Council
	Member, Fluoride Committee	Public Utilities BoardMinistry of Environment
	Member, Fluoride Committee	Prosthodontic Society (Singapore)
Dr Amr Fawzy	Secretary	International Association for Dental Research (IADR) Singapore Section
A/P Kelvin Foong	Member, Dental Specialist Accreditation Committee in Orthodontics	Ministry of Health
A/P Stephen Hsu	Member, Dental Specialists Assessment Committee in Pedodontics	Ministry of Health
Dr Intekhab Islam	Secretary (till April 2011)	International Association for Dental Research (IADR) Singapore Section
	Executive Committee	Asian Association of Oral & Maxillofacial Surgery (AAOMS) Singapore
A/P Keng Siong Beng	Chairman, Technical Committee NITEC in Dental Technology	Institute of Technical Education (ITE)
	Member, Panel of Disciplinary Committee Chairpersons	Singapore Dental Council
Prof Loh Hong Sai	Medical Specialist, Panel of Work Injury Compensation Medical Board	Ministry of Manpower
	Consultant	Office of Alumni Relations, NUS
	Member, Panel of Disciplinary Committee Chairpersons	Singapore Dental Council
Dr Michael Mah	Treasurer	Association of Orthodontists (Singapore)
	Council Member	Singapore Dental Association
Dr Betty Mok	Member, Dental Specialist Assessment Committee in Pedodontics	Ministry of Health
	Member, Technical Committee NITEC in Dental Chairside Assisting	Institute of Technical Education (ITE)
	Member, Dental Officer Training Review Committee	Ministry of Health
	Associate Director (from April 2011)	Office of Alumni Relations, NUS

#### **BOARD MEMBERSHIP IN LOCAL/GOVERNMENT AGENCIES (AY2010/11) (CONT'D)**

NAME	DESIGNATION(S)	ORGANISATION(S)
Dr Clara Mok	Member, Dental Hygiene & Therapy Examination Panel (for foreign candidates)	Nanyang Polytechnic, School of Health Sciences
A/P Jennifer Neo	Member	Singapore Dental Council
	Member, Credentials SubCommittee (from Jan 2010)	Singapore Dental Council
	Member, Continuing Professional Development/Education SubCommittee	Singapore Dental Council
	Member, Panel of Disciplinary Committee Chairpersons	Singapore Dental Council
	Member, Singapore Dental Council Complaints Panel	Singapore Dental Council
A/P Grace Ong	Member, Periodontology Specialist Committee, Periodontology	Academy of Medicine, Singapore
	Committee Member, Table of Surgical Procedures Review Committee	Academy of Medicine, Singapore
	Member, Advisory Committee for Medisave- approved Dental Procedures	Ministry of Health
	Member, Dental Specialist Accreditation Board	Ministry of Health
	Member	Singapore Dental Council
A/P Keson Tan	Member, Credentials Committee (from January 2010)	Singapore Dental Council
	Member, Dental Specialist Accreditation Board	Ministry of Health
	Member, CDE Committee	Singapore Dental Council
	Member, Oversight Committee for the Accreditation of Dental Clinics as Training Centres	Ministry of Health
Dr Tan Kai Soo	Member	International Association for Dental Research (IADR) Singapore Section
Dr Tong Huei Jinn	Member	International Association for Dental Research (IADR) Singapore Section
A/P Robert Yee	Member, CPG on Functional Screening for Older Adults in the Community	Health Promotion Board, Ministry of Health
	Member, Geriatric and Special Needs Dentistry Committee	Ministry of Health
	Member, Dental Hygiene & Therapy Advisory Panel	Nanyang Polytechnic
	Member of the Fluoride Review Committee	Public Utilities Board, Ministry of Environment
A/P Yeo Jin Fei	Chairperson & Member Dental Specialists, Accreditation Committee in Oral & Maxillofacial Surgery (2008-2010)	Ministry of Health
Dr Victoria Yu	Member, Dental Specialists Assessment Committee in Endodontics	Ministry of Health

# STAFF AMARDS

#### "FACULTY EXCELLENCE IN TEACHING" AWARD 2010/11

- Dr Mok Yuen Yue Betty
- Dr Yu Soo Hoon Victoria
- Adjunct Assoc Professor Myra Elliot (Part-time)
- Clinical Assoc Professor Chew Ming Tak (Part-time)



From Left: Clinical Assoc Professor Chew Ming Tak (Part-time), Dr Mok Yuen Yue Betty, Dr Yu Soo Hoon Victoria, Adjunct Assoc Professor Myra Elliot (Part-time)

## DOMPTIONS

#### **OUR GENEROUS DONORS FOR FY2010 (APRIL 2010 – MARCH 2011)**

#### \$50,000 - \$100,000

Colgate-Palmolive (Eastern) Pte Ltd

#### \$10,000 - \$49,999

Ace Star Dental Services Pte Ltd Lee Hui Jing Helena Newlife Dental Practice Pte. Ltd. Quek Tiang Chye Matthias Sum Chee Peng Tai Pee Tah

#### \$1,000 - \$9,999

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Shahul Hameed

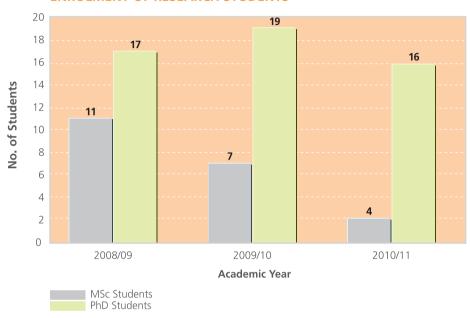
Shofu Inc. Singapore Branch Sim Kwang Yong Christopher Singapore Dental Association

Tan Chin Hwee
Tan Kim Poon
Tang Kok Foo
Tay Seng Kong Louis

The faculty of dentistry wishes to extend its heartfelt appreciation to all donors who contributed in FY 2010.

# RESEARCH STATISTICS

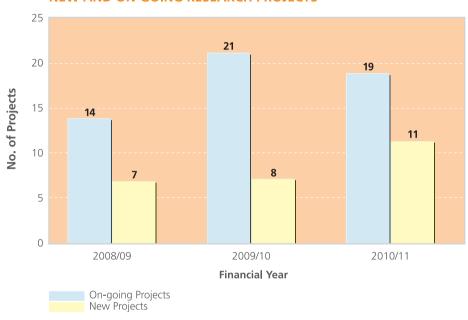
#### **ENROLMENT OF RESEARCH STUDENTS**



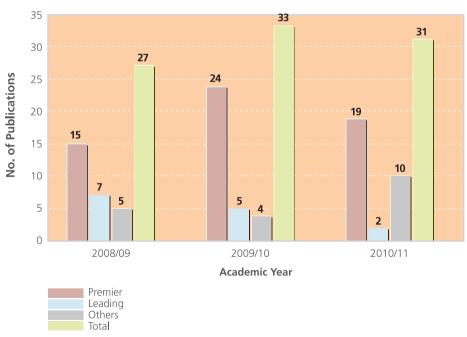
#### **RESEARCH FUNDING**



#### **NEW AND ON-GOING RESEARCH PROJECTS**



#### **RESEARCH PUBLICATIONS**



#### LIST OF CONFERRED PHD AND MSC STUDENTS IN AY 2010/11

NAME	MAIN SUPERVISOR	DEGREE	THESIS TITLE
Fu Xin	A/P Cao Tong	PhD	Establishment of an Autologous Feeder System for Long Term Culture of Pluripotent Human Embryonic Stem Cells
Hu Xiaoli	A/P Stephen Hsu	PhD	Thermal Treatments Modulating Bacterial Adhesion
Tang Ning	A/P Yeo Jin Fei	PhD	Role of Central Nervous System Ceramides and Free Radicals in a Mouse Model of Orofacial Pain
Toh Wei Seong	A/P Cao Tong	PhD	Differentiation and Derivation of Lineage- Committed Chondroprogenitors and Chondrogenic Cells from Human Embryonic Stem Cells for Cartilage Tissue Engineering and Regeneration
Lutfun Nahar	A/P Yeo Jin Fei	MSc	Gene Expression Changes in the Brainstem in a Mouse Model of Orofacial Pain
Megha Haridas Upadya	A/P Anil Kishen	MSc	Invivo Investigation on the Effect ANILAD (Advanced Non Invasive Light Activated Disinfection) on Periapical Tissues

#### **LIST OF CONFERRED MDS STUDENTS IN AY 2010/11**

#### **ENDODONTICS**

STUDENT NAME	THESIS TITLE	MAIN SUPERVISOR
Jee Shizhuan Terence	Influence of Intra-orifice Sealing Materials on Microleakage at Cervical Region of Endodontically- treated Teeth	Adj A/P Lim Kian Chong Gerald
Sim Guat Bee Irene	Effect of Different Duration of Application of Chelating Agents on Dentine Hardness	Dr Sum Chee Peng
Yang Shi Lin Sherine	Cytotoxicuty Assessment of Precipitate Formed Following EDTA and Chlorhexidine Digluconate Irrigation in Endodontics	A/P Cao Tong

#### **ORAL & MAXILLOFACIAL SURGERY**

STUDENT	THESIS	MAIN
NAME	TITLE	SUPERVISOR
Hong Pooi Mun Debbie	Oral Health Related Quality of Life in Patients With Temporomandicular Joint Disorders Following Arthrocentesis	Dr Raymond Wong

#### **ORTHODONTICS**

STUDENT NAME	THESIS TITLE	MAIN SUPERVISOR
Lai Ye Choung	Assessment of Dental Age and Development in Singapore Chinese Children Using Demirjian System	A/P Kelvin Foong
Ong Wei Choong Devin	Influence of Viewing Software on Image and Diagnostic Quality of Dental CBCT Images	A/P Kelvin Foong
Tan Li Yen Elaine	Dental Development and dental Anomalies in Cleft Lip and Palate Patients in Singapore	A/P Mimi Yow

#### **PERIODONTICS**

STUDENT NAME	THESIS TITLE	MAIN SUPERVISOR
Low Yi Han	Hard Tissue Profile Of Anterior Maxillary Region: A Retrospective Study in an Asian Population	Dr Yeo Boon Keng Alvin
Maung Than Zaw Oo	Patients' Perception of Post Operative Pain Following Periodontal & Implant Surgery	A/P Lim Lum Peng

#### **RESEARCH PROJECTS AWARDED FOR FUNDING IN FY 2010/11**

PRINCIPAL INVESTIGATOR	PROJECT TITLE	TOTAL PROJECT VALUE	FUNDING SOURCE
Dr Amr Fawzy	Engineering the Structure and Properties of Dentinal Collagen Fibrils through Novel Cross-linking Approaches	S\$179,900	Start Up Grant
	Pilot Study of the Physicochemical Effect of Dentin on hESC-MSC Differentiation	S\$10,000	FOD-Development
A/P Cao Tong	Functional Charaterization of a hESC- derived Differentiated Stratified Squamous Epithelium	S\$179,850	AcRF Tier 1
Dr Chang Po-Chun	Advanced Glycated End Products in Periodontal Destruction	S\$42,000	AcRF Tier 1
	Dual-compartmental Growth Factor Delivery to Achieve Periodontal Tissue Regeneration	S\$170,000	NMRC-NIG
	Mathematical Modelling of the Esthetic Anterior Crown	S\$25,000	Cross Faculty Research Grant
Prof Chew Chong Lin	Clinical Evaluation of Narrow Diameter Implants for Mandibular Denture Retention	S\$54,050	AcRF Tier 1
Dr Intekhab Islam	Isolation and Directed Neural Differentiation of Human Embryonic Stem Cells	S\$59,850	AcRF Tier 1
	Neural Differentiation of Human Embryonic Stem Cells	S\$179,990	Start Up Grant
A/P Lim Lum Peng	The Effects of Photodynamic Theraphy on Periodontal Healing in Patients with Periodontitis	S\$50,863	AcRF Tier 1
Dr Tan Kai Soo	Role of Oxidative Stress in Host-pathogen Interactions in Periodontal Disease	S\$179,924	Start Up Grant

#### **RESEARCH COLLABORATIONS**

COLLABORATING ORGANIZATIONS	DEPARTMENT
UNIVERSITIES	
Duke-NUS Graduate Medical School	Oral and Maxillofacial Surgery
Harvard University	Oral and Maxillofacial Surgery
National Taiwan University	Periodontology
National Taiwan University of Science and Technology	Chemical Engineering
Peking University	Oral and Maxillofacial Surgery
Shanghai Jiatong University	Oral and Maxillofacial Surgery
University of Hong Kong	Orthodontics
University of Iowa	Oral and Maxillofacial Surgery
University of Michigan – Ann Arbor	Periodontics and Oral Medicine
University of Western Australia	Restorative Dentistry
University of Wisconsin Madison	Oral and Maxillofacial Surgery
Zhejiang University	Oral and Maxillofacial Surgery
INDUSTRIES	
Agency for Science, Technology, and Research (A*STAR)	Singapore Bioimaging Consortium
Bio-scaffold International	Oral and Maxillofacial Surgery
SBIC, A*STAR	Oral and Maxillofacial Surgery
Tzu-Chi Hospital – Taipei Branch	Medical Imaging

#### **PUBLICATIONS**

AUTHOR(S)	PUBLISHED YEAR	ARTICLE TITLE	JOURNAL TITLE
Cao Tong*, Toh WS, Lee EH, Gou X, Chan KYJ, Yeow C H and Choo AB	2010	Cartilage Repair Using Hyaluronan Hydrogel-encapsulated Human Embryonic Stem Cell-derived Chondrogenic Cells	Biomaterials
Keson Tan*, Seetoh*, YL, E K Chua, H C Quek and J I Nicholls	2010	Load Fatigue Performance of Metal and Zirconia Conical Implant-Abutment Connections	International Journal of Oral & Maxillofacial Implants
Lim Lum Peng*, Ng*, C H M, M A M Ong, C G Koh and Y H CHAN	2010	Tooth Loss in Compliant and Non-compliant Periodontally Treated patients:7 years After Active Periodontal Therapy	Journal of Clinical Periodontology
Lim Lum Peng, MEHTA* and P M	2010	The Width of the Attached Gingiva - Much Ado About Nothing?	Journal of Dentistry
Andrew Ow * and Cheung, LK	2010	Simultaneous Modified Oblique Lefort III and Segmentalized Lefort I Osteotomies	Journal of Oral and Maxillofacial Surgery
Fu Jia Hui, Al-Hezaimi*, K, M Al-Askar, Z Salameh, I A Alsarra and H L Wang	2010	Evaluation of Novel Adhesive Film Containing Ketorolac for Post- Surgery Pain Control : A Safety and Efficacy Study	Journal of Periodontology
Fu Jia Hui, Chan*, H L, H L Wang, J Bashutski, P C Edwards, and T J Oh	2010	Retrograde Peri-Implantitis : An Evidence-based Approach to Etiology and Treatment	Journal of Periodontology
Fu Jia Hui* and H L Wang	2010	Utilizing Collagen Membranes for GTR-Based Root Coverage	Periodontology 2000
Cao Tong*, Toh Wei Seong and Lee EH	2010	Potential of Human Embryonic Stem Cells in Cartilage Tissue Engineering and Regenerative Medicine. Stem Cell Rev	Stem Cell Reviews
Cao Tong*, Fu X, Toh Wei Seong, Liu Hua, Lu Kai, Li M and Hande MP	2010	Autologous Feeder Cells from Embryoid Body Outgrowth Support the Long-term Growth of Human Embryonic Stem Cells More Effectively Than Those From Direct Differentiation	Tissue Engineering
Fu Jia Hui, Chan*, H L, S L Brooks, C Y Yeh, I E Rudek and H L Wang	2011	Cross-sectional analysis of Mandibular Lingual Concavity Using Cone Beam Computed Tomography	Clinical Oral Implants Research
Yeo Jin Fei, Poh Kay Wee*, and W Y Ong	2011	MicroRNA Changes in the Mouse Prefrontal Cortex After Inflammatory Pain	European Journal of Pain
Victoria Yu*, H H Messer and Keson Tan	2011	Multiple Idiopathic Cervical Resorption: Case Report and Discussion of Management Options	International Endodontic Journal

<sup>\*</sup> Indicates corresponding author

### PUBLICATIONS (CONT'D)

AUTHOR(S)	PUBLISHED YEAR	ARTICLE TITLE	JOURNAL TITLE
Chew Chong Lin, Zhang Xu*, K G Neoh, and Anil Kishen	2011	Biomimetic Remineralisation of Partially Demineralised Dentine Modified with Phosphorylated Chitosan	Journal of Biomedical Materials Research
Rahul Nair*, K Weber, T A Marshall, J J Warren and S M Levy	2011	Factors Affecting Early Childhood Caries Among WIC-enrolled Children in Linn County, Iowa	Journal of Dentistry for Children
Andrew Ow, Shen*, Y, J Sun, L Jun and S Jun	2011	Long-term Results of Partial Double Barrel Vascularized Fibula Graft in Symphysis for Large Mandibular Reconstruction	Journal of Oral and Maxillofacial Surgery
Fu Jia Hui*, D G Hasso, C Y Yeh, D J M Leong, H L Chan and H L Wang	2011	The Accuracy of Identifying the Greater Palatine Neurovascular Bundle : A Cadaver study	Journal of Periodontology
Fu Jia Hui, Chan*, H L, E Benavides, C Y Yeh, I E Rudek and H L Wang	2011	Risk assessment of Lingual Plate perforation in posterior Mandibular region : A virtual Implant Placement Study with Cone Beam Computed Tomography	Journal of Periodontology
Catherine Hong, Napenas*, JJ, E Kempter, MT Brennan, SL Furney and PB Lockhart	2011	Selective Serotonin Reuptake Inhibitors and Oral Bleeding Complications After Invasive Dental Treatment	Oral Surgery, Oral Medicine, Oral Pathology Oral Radiology and Endodontics
Andrew Ow*, Yang, X, CP Zhang, LZ Wang, WJ Yang, YJ Hu and LP Zhong*	2011	Clinical Analysis of 120 cases of Intraoral Lymphoepithelial Cyst	Oral Surgery, Oral Medicine, Oral Pathology Oral Radiology and Endodontics
Cao Tong*, Fu Xin, Liu Hua, M Ll, Toh Wei Seong and Lu Kai	2011	Establishment of Clinically Compliant Human Embryonic Stem Cells in an Autologous Feeder-free Culture System	Tissue Engineering

<sup>\*</sup> Indicates corresponding author

#### LIST OF EDITORIAL BOARD MEMBERSHIPS IN AY 2010/11\*

NAME OF STAFF	NAME OF JOURNAL/ BOOK SERIES	POSITION HELD
A/P Cao Tong	World Journal of Stem Cells Stem Cell Studies Chinese Journal of Dental Research	Editorial Board Member Editorial Board Member Editorial Board Member
A/P Keng Siong Beng	Singapore Dental Journal	Editorial Reviewer
A/P Lim Lum Peng	Singapore Dental Journal Oral Health & Preventive Dentistry Hong Kong Dental Journal	Editorial Reviewer Editorial Board Member Editorial Adviser
Prof Loh Hong Sai	Singapore Dental Journal	Section Editor
Prof Murray Clyde Meikle	Royal College of Surgeons, Edinburgh Journal	Editorial Board Member
A/P Jennifer Neo	Journal of Dentistry Operative Dentistry	Editorial Board Editorial Board Member
Dr Clarisse Ng	Journal of Prosthodontics	Editorial Review Board
Dr Uy Joanne Ngo	Singapore Dental Journal Singapore Dental Journal	Editorial Review Board Member Editorial Reviewer
A/P Grace Ong	Journal of European Dental Education	Editorial Board Member
A/P Keson Tan	Journal of Oral Rehabilitation Singapore Dental Journal	Editorial Board Editorial Reviewer
A/P Yeo Jin Fei	Singapore Dental Journal	Editorial Reviewer

<sup>\*</sup>Information accurate as of 12 May 2011

#### PLENARY/KEYNOTE INVITATION CONFERENCES

NAME OF STAFF	NAME OF INTERNATIONAL CONFERENCE	COUNTRY HELD	CONFERENCE PERIOD (FROM)	CONFERENCE PERIOD (TO)
A/P Cao Tong	Guest Seminar - The Future of Human Embryonic Stem Cells in Dentistry	China	Dec-10	Dec-10
	Guest Seminar - Turning hESC Discovery into Dental Health and Beyond	China	Dec-10	Dec-10
	Presidential Guest Speaker, Keynote Speech. New Era of Dentistry with Human Embryonic Stem Cells, Signaled by Obama and Bush. The First Global Chinese Congress of Oral Medicine; International Conference of Oral Medicine 2010 China	China	Dec-10	Dec-10
	Presidential Guest Speaker, Keynote and Plenary Speech. Recent Developments and Challenges on Human Embryonic Stem Cell Research	China	Dec-10	Dec-10

## RESERROH INTERNSHIPS

The Faculty of Dentistry has hosted students from various schools, both locally and internationally as research interns. These schools include Junior Colleges, Polytechnics, and overseas Universities. The duration of the internship varies from a few months to about a year. The internship can either be full-time or part-time. These students receive guidance from academic staff of the Faculty.



From Left: Research Intern, Dr Guo Yu, together with supervisor, AIP Keson Tan

This year's training course was very in-depth and substantial, and I had benefitted a lot from it. I attended and observed the Graduate Prosthodontic Residency Training Program, studied basic Finite Element Analysis (FEA) techniques and finished one FEA project titled: "Three Dimensional Finite Element Analysis of Post-Core Systems and Cements in Endodontically-Treated Central Maxillary Incisors with a Full Coverage Crown".

I also had the opportunity to undergo the Basic Course in Dental Implantology.

Just as Singapore is the global hub in this region, NUS is truly a global university. I met with students and professors from all over the world and experienced a totally different academic atmosphere. It really stimulated and broadened my perspectives.

- Dr Guo Yu, Shanghai Jiao Tong University







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