

IRCOHE Bulletin

International Research Collaborative - Oral Health and Equity

Anatomy, Physiology and Human Biology, The University of Western Australia

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Forensic Dentistry

A visit from one of the global leaders in Forensic dentistry, coupled with the near completion of Amin's doctorate on a related topic are celebrated in this edition of the Bulletin

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Autism and Somali Kids

Graduate student Ifrah Abdullahi completed work on access of kids with Autism to primary health services in Australia. A world class piece of research; making a difference.

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Global collaborations are extending to work with a team of Staff and Students at the Utah Valley University to transfer skills in dental mapping.

Building global collaborations

Over summer there has been a wonderful expansion of the teams collaborations across the world.

We start in Malaysia, where data is being shared to develop state-of-the-art forensic systems to age individuals from complex three dimensional data approaches. This collaboration with the team at Universiti Kebangsaan Malaysia is leading to advances in technology that will be vital in disaster identification. It is fantastic to work with such a great group.

In Utah, USA we have joined with one of the IRCOHE fellows to work share students and

develop a research theme focused on addressing the needs of community members through providing access maps for primary dental care. It is a real opportunity to undertake skills and technology transfer to our friends at Utah Valley University.

We continue to collaborate with teams across the Indian and Pacific oceans and through into Europe. The IRCOHE has now some 150 Fellows across the world that form the backbone of support for some 40 graduate students to address a wide variety of important issues all clustered around addressing poverty and marginalisation.

Dr Ebaa Jalil AL-saigh

Dr Ebaa Jalil AL-saigh comes from Iraq and more specifically an area called Babylon.

Babylon was a significant city in ancient Mesopotamia, in the fertile plain between the Tigris and Euphrates rivers. It was seen as an ancient Akkadian-speaking Semitic state and cultural region based in central-southern Mesopotamia (present-day Iraq). It's the place where is the first law in the mankind's

history was written by king Hammurabi. The remains of the city are in present-day Hilla, Babil Governorate, Iraq, about 85 kilometres south of Baghdad with a population of 2 million, comprising a large tell of broken mud-brick buildings and debris.

"I came from a place that has been facing dental health issues similar to any other places in the world where are the poor peoples have been the most

disadvantage population in the area."

Ebaa has spent the last year studying the Australia dental care system with a big motivation to replicate school dental service models in her hometown to alleviate suffering.

Ebaa's plan is plan is to investigate the challenges and how to generalise this scheme to her country.

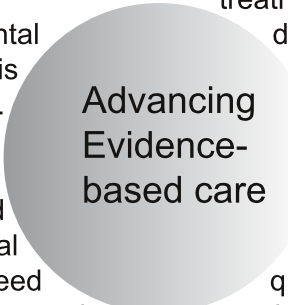
Professor Christopher Pantin

A long-term friend of the IRCOHE and now Fellow Associate Professor Christopher Pantin has been developing the nations only university qualification in dental sleep science. His effort, collaborating with the Sleep Science Centre within the school has seen dental professionals now graduate with formal qualifications focused on evidence-based practice. A real

advance for the care of Australian society.

The area of dental sleep medicine is forever evolving. There are many aspects of treating sleep disordered breathing with oral appliances that need addressing and hence much research. An underlying concern is the lack of evidence that

supports many clinician's treatment choices thus the development of a Graduate Diploma in Dental sleep medicine lead collaboratively by Christopher and his colleagues. This is an evidence based qualification that not only teaches clinical skills and sleep science, but does so using an innovative online format.



Dr Inderjeet Sohal

The IRCOHE is celebrating the successful completion of a number of its national gold-standard program in dental public health. The masters program has lead to many wonderful graduates now advancing the goals of the Collaborative across the world. One such graduate of the 2015 group is Dr Inderjet Sohal, who has completed some wonderful research looking at eliminating

dental caries. Inder, used Canberra, in Australia has her model of a "eutopian" dental environment. "Australia has some really interesting public health experiments that happen spontaneously, due to the nature of our distributed geography." "Experiments" that were never really experiments, but turned into neat vignettes of the advances we have made in

health, and also provide indicators for the future directions. Canberrian children's teeth are just one such case. With its total area of just over 2000sq km, it is a relatively tiny, self-governed area. It is fundamentally a single city Territory, with a total population approaching 400,000 people. Inder's work has already been published in the #TalkingTeeth series at croakey.org

Global expert visits - Professor Sigrid I. Kvaal

One of the newest Fellows of the IRCOHE, Associate Professor Sigrid I. Kvaal spent 10 days with the team in Perth.

Sigrid came to us from her home in Norway and faced firstly the substantial difference in temperature!! But more importantly Sigrid, lent her expertise to supporting the graduate students of the team. She is the inventor of one of the most important methods of aging individuals from dental x-rays. Her technique is the global gold-standard. We were really happy to share some time with her. Importantly, she has now become a co-supervisor of graduate students and a Fellow of the IRCOHE which we are all

very happy to have the opportunity to share.

Sigrid has been project coordinator for dental age estimation of unaccompanied asylum seeking children (UASC) since 2009. From 2009 to the end of 2014 almost 5000 age-estimations have been performed for UASC.

Sigrid has worked with age-estimations since 1987. Her early research was to look at various methods to estimate age in adults. Part of her thesis was to develop a formula for estimating age in adults based on dental radiographs. This method is today used on adults and regularly applied as a guide for age estimation for those who

claim to be minors but are suspected of being much older. She is a co-author on several scientific publications on age estimation and is active in the identification work after mass disasters.



Congratulations of Dr Amin Al-Shihiri

It is a great pleasure to see Dr Amin Al-Shihiri to be coming to the end of his doctorate. Amin's thesis, which included 4 International publications, is focused on age estimation and forensic dentistry.

Forensic dentistry is commonly about the analysis of teeth from living and dead individuals, often after mass disasters or displacements of people. Sometimes, sadly, this includes children and teenagers. The development stage of teeth has been found to be a good indicator of an individual's age.

The aim of Amin's internationally published research effort was to test the accuracy of dental age estimation for Western Saudi Arabian children using three



globally recognised methods. The studies found that all three methods mostly under-estimated children's real age. One of the methods (Demirjian's), was identified as the most accurate of the three. More specifically, in summary, the studies found that

specific dental age estimation methods are applicable for the different ethnic groups in Western Saudi Arabia, and accuracy for each method varies according to age.

Somali kids with Autism



Last year the IRCOHE has very pleased to support a graduate student working on a project about Somali children suffering Autism and their access to services in Australia.

The study lead by Ifrah Abdullahi used both quantitative and qualitative to examine the service accessibility of Somali Australians suffering Autism Spectrum Disorder (ASD). Using the Australian Bureau of Statistics and GIS tools, Somalis were located geographically across Australia at the highest level of accuracy available with the 2011 census data. A total population of 10 097 people were found with Victoria the (5,797), down to the Northern Territory (38). Resident clustering to SA3 (quasi suburb) in Victoria was highest in Banyule (1126), Essendon (663) and Maribyrong (474). In Western Australia (WA); Stirling (369 people), Canning (332

people), and Gosnells (326 people) and in New South Wales (NSW); Auburn (366 people), Merrylands (179 people) and Canterbury (134 people).

Ifrah's work looked closely at accessibility to critical primary services and was a wonderful example of knowledge and technical transfer between disciplines. It is a real credit to her efforts that the international peer review publication review read "Congratulations on an important piece of work. This is a very interesting paper and would be welcomed by the health and social care field in Australia."

Great graduate student advancing justice for all in the world. Congratulations Ifrah, the whole IRCOHE is pleased that you have received a scholarship to continue your academic pursuits.



The International Research Collaborative - Oral Health and Equity (IRCOHE) is a multinational collaborative focused on developing innovative solutions in oral health education, research and service to address the global challenges associated with social inequities. The primary focus of the IRCOHE is to undertake cutting-edge research and develop strategies to address the significant unmet needs of marginalised communities.

Research programs are targeted at facilitating improved oral health in societies across the globe. Key issues include: oral health policy and strategy; accessibility; workforce; skills mix, education and distribution; and research oriented to health care needs and prevention.