

學術講演

招待講演 (Invited Lecture)



## 3D Imaging in Beautiful Smile Design

Taiwan Association of Orthodontists  
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Recent years, more and more 3D imaging involves dental and orthodontic treatment approach. Cone-beam computer tomography (CBCT) with large Field of View (FOV) not only gives more information of teeth but also a better depiction of craniofacial skeleton. Digital dental models obtained with either extra-oral or intra-oral scanners can be used for virtual model set-up, facilitates diagnosis and adequate treatment plan. 3D facial photos provides a comprehensive soft tissue evaluation as well as 3D smile assessment. The visual treatment simulation also makes a better patient consultation and communication.

In the talk, several orthodontic cases related to beautiful smile design/ build-up will be presented. Among these cases, several approaches to establish beautiful smile such as 1) occlusal plane/ maxillo-mandibular complex rotation/ manipulation through 3D Imaging Assessment; 2) skeletal Class II/ Class III surgical correction via Computer-aided Surgical Simulation; 3) interdisciplinary treatment with 3D Digital Smile Design. The benefits will also be explained.

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Dr. Sam Hsu specialised in Craniofacial Orthodontics at Chang Gung Memorial hospital since 2003. After years of practice as a orthodontist, he started his 3D journey at The Methodist Hospital Research Institute in Houston, Texas, USA in 2010, Researching on Oral and Maxillo-facial surgical planning with CBCT technology.

Dr. Sam Hsu implemented 3D treatment planning into dental surgery and orthodontics after his return to Taiwan and became the pioneer of the field till today. As a Chairman of Academic Committee in Taiwan Association of Orthodontists and the Assistant Professor at Chang Gung Memorial Hospital, he actively provides 3D lectures on Orthodontics, Maxillo-facial surgical planning, Airway, TADs, Dental surgery and Esthetics in many countries worldwide.

Dr. Sam Hsu continues his interest on clinical practice in private clinics and keeps expanding his 3D knowledge through research at Chang Gung Memorial hospital in Taipei, Taiwan.