YI LIU, D.D.S., Ph.D.

Associate Professor, Peking University School and Hospital of Stomatology, 2010 - Present
Visiting Professor, Department of Orthodontics, University of Southern California, U.S.A., 2008
Ph.D., Peking University, School of Stomatology, 2002
Bachelor, School of Somatology, Beijing Medical School, 1996
Director, International Communication of Chinese Stomatological Association, 2012 - Present
Committee Member, Chinese Society of Orthodontists, 2010 - Present
International member, American Association of Orthodontists (AAO) 2010 - Present
International Member, World Federal of Orthodontics (WFO)

Presentation Date:	**Tuesday 8 May 2018 9:30 AM - 10:30 AM & 2:30 PM - 3:30 PM**
Venue	**SMX CONVENTION CENTER MANILA Function Room 5**
Presentation Title:	**WHAT IS CBCT CHANGING IN ORTHODONTICS**

CBCT (cone beam computed tomography) has been widely accepted by orthodontists. This lecture focus on the advanced CBCT applications in orthodontic diagnosis and treatment planning. The limitations of conventional 2-dimensional planar film are discussed, and case examples are described that highlight the additional diagnostic information and many benefits derived from 3-dimensional imaging. CBCT soft- ware can manipulate the Digital Imaging and Communications in Medicine (ie, DICOM) data to visualize anatomic structures and accurately display relationships within the craniofacial complex. A combination of volumetric reconstruction and multiplanar views can provide the orthodontic clinician with skeletal hard tissue, soft tissue, dentition, and airway information. Non-standard orthodontic cases, such as impacted teeth, supernumerary odontomas, or unexpected radiologic observations, such as pathologic lesions or incidental findings are best visualized with the 3-dimensinoal CBCT scan. Advanced CBCT software applications also can be used to quantify airway space (relevant for sleep apnea cases), perform superimpositions of objects at different time points to semi-quantitatively visualize changes (eg, mandibular growth, temporomandibular joint, airway), and generate digital dental models to streamline the workflow in the orthodontic clinic.

Learning objectives (maximum 5):

1. The Basic principle of using CBCT with large FOV in orthodontics.
2. 3D cephalometrics based on CBCT.
3. Accurate torque control with CBCT monitoring.
4. Diagnostic responsibility for orthodontists.
5. New model setup for orthodontics clinic.