

## Biodegradable CAD-CAM scaffolds for bone regeneration

Moustafa Aboushelib

Alexandria University, Egypt



### Abstract

A new facile and scalable approach for utilizing basic ionic Reconstruction of atrophic ridges is a challenging job using powder form bone grafting materials as usually we gain more width and less height due to collapse of the grafted material even when protected with a hard mesh. Moreover, sinus lift surgeries end up in building bone in the wrong direction ending up with compromised restoration – implant ratios. Modern technologies and sophisticated imaging techniques allow direct recognition of the defect size and shape. In this lecture we are going to shed some light about new possibilities in tissue engineering where the dentist can design, mill, and insert the required graft as an integrated structure without the need to use a membrane or a protective mesh.

CAD-CAM scaffolds must initiate cell signaling once in contact with blood, provide suitable environment for the invading cell, and at the same time have a biodegradation mechanism that creates sufficient space for new bone deposition. More and more about the secrets of smart bone scaffolds will be revealed though one hour lecture enriched with illustrative images and video demonstrations. Case presentations and surgery protocols will be discussed including step by step treatment management protocols.



### Biography:

Moustafa Aboushelib has completed his PhD at the age of 25 years from Andhra University and postdoctoral studies from Stanford University School of Medicine. He is the director of, a premier Bio-Soft service organization. He has published more than 25 papers in reputed journals and has been serving as an editorial board member of repute.

### Speaker Publications:

1. "The polymerization efficiency of a bulk-fill composite based on matrix-modification technology", Restorative Dentistry & Endodontics/vol 43, issue 3, May 29, 2020
2. "Effect of preheating and ultrasonic energy on penetration of low viscosity enamel resin infiltrant", Egyptian Dental Journal/ Volume 66, Issue 1 January 2020, Page 423-427
3. "Color match of modified high translucency zirconia frameworks", Egyptian Dental Journal/ Volume 66, Issue 2 - April
4. "COLOR MATCH OF MODIFIED HIGH TRANSLUCENCY ZIRCONIA FRAMEWORKS", Journal of Dentistry /66:1311:1315
5. "Microtensile bond strength of a self-etch adhesive used as a carrier for a remineralizing agent", Egyptian Dental Journal/ Volume 65, Issue 4 - October

[24th Annual World Dental Summit](#) May 07-08, 2020  
Webinar

### Abstract Citation:

Moustafa Aboushelib, Biodegradable CAD-CAM scaffolds for bone regeneration, Dental World 2020, 24th Annual World Dental Summit May 07-08, 2020 Webinar

(<https://worlddental.conferenceseries.com/abstract/2020/biodegradable-cad-cam-scaffolds-for-bone-regeneration>)