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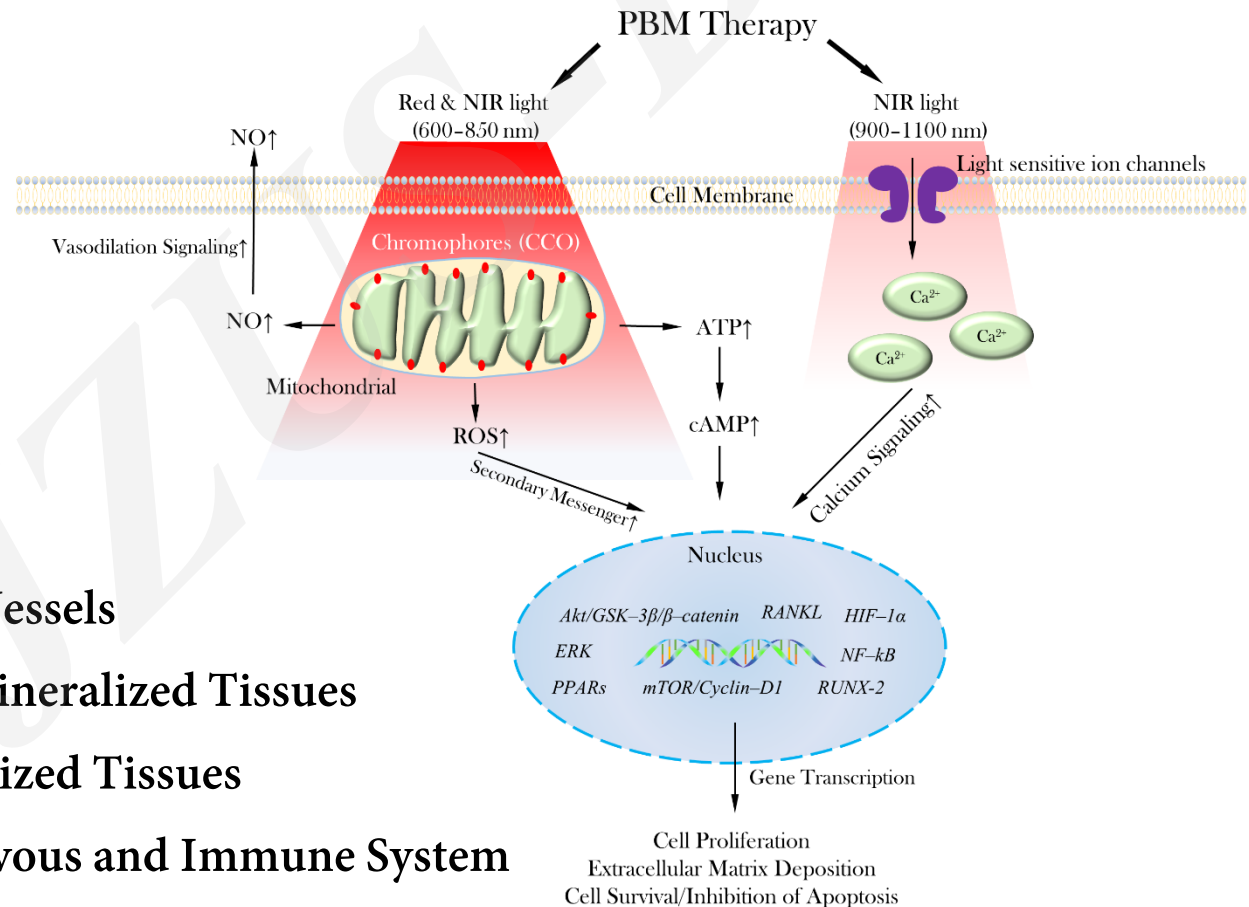
Photobiomodulation therapy assisted orthodontic tooth movement: potential implications, challenges, and new perspectives

Key words:

Low-level laser therapy (LLLT); Photobiomodulation therapy; Low-intensity-laser therapy (LILT); Orthodontic tooth movement; Orthodontics; Immunorthodontics

Review Summary

This review explores possibilities for improving the application and effectiveness of photobiomodulation (PBM) during orthodontic tooth movement (OTM).



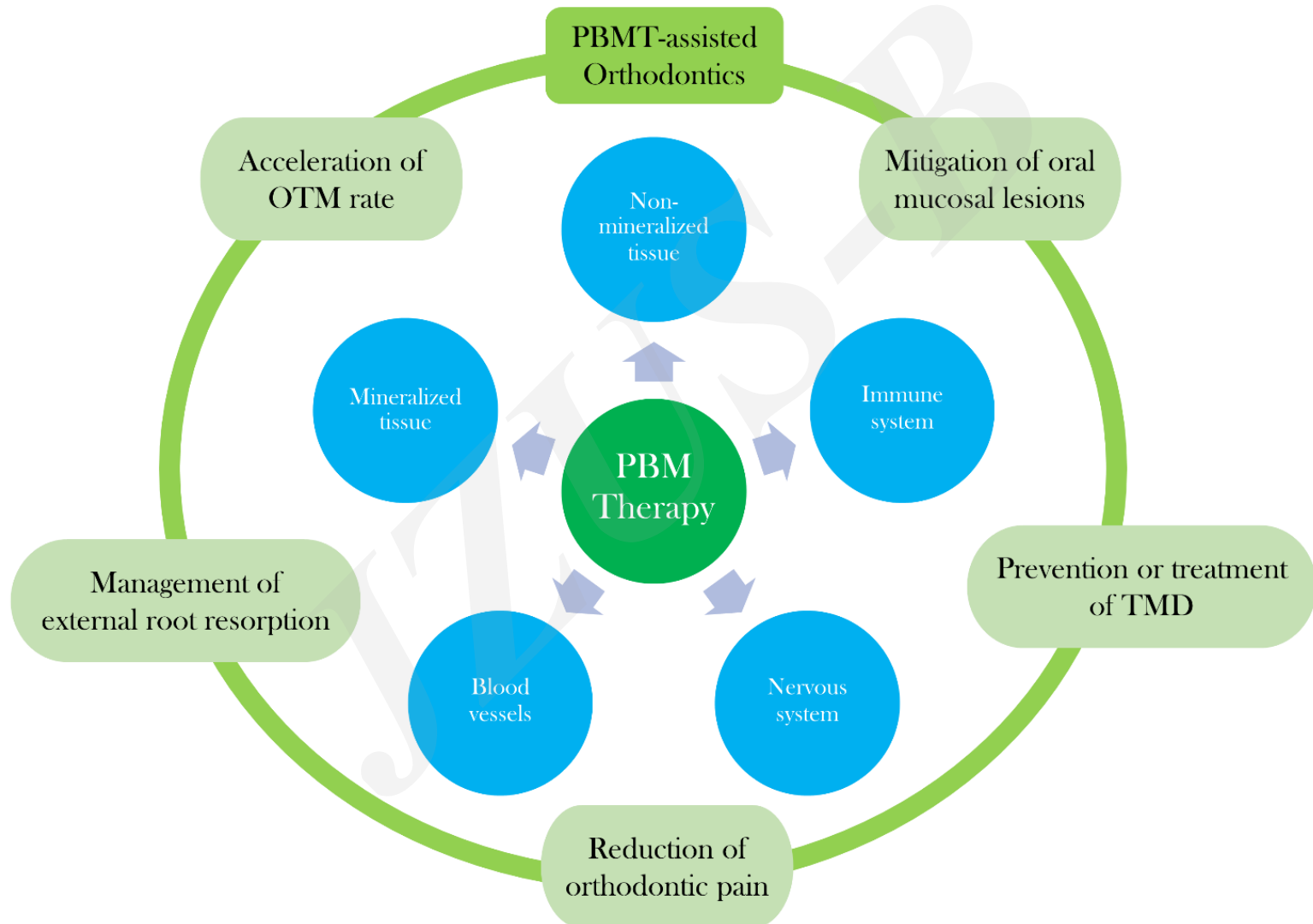
Effect of PBM on Blood Vessels

Effect of PBM on Non-Mineralized Tissues

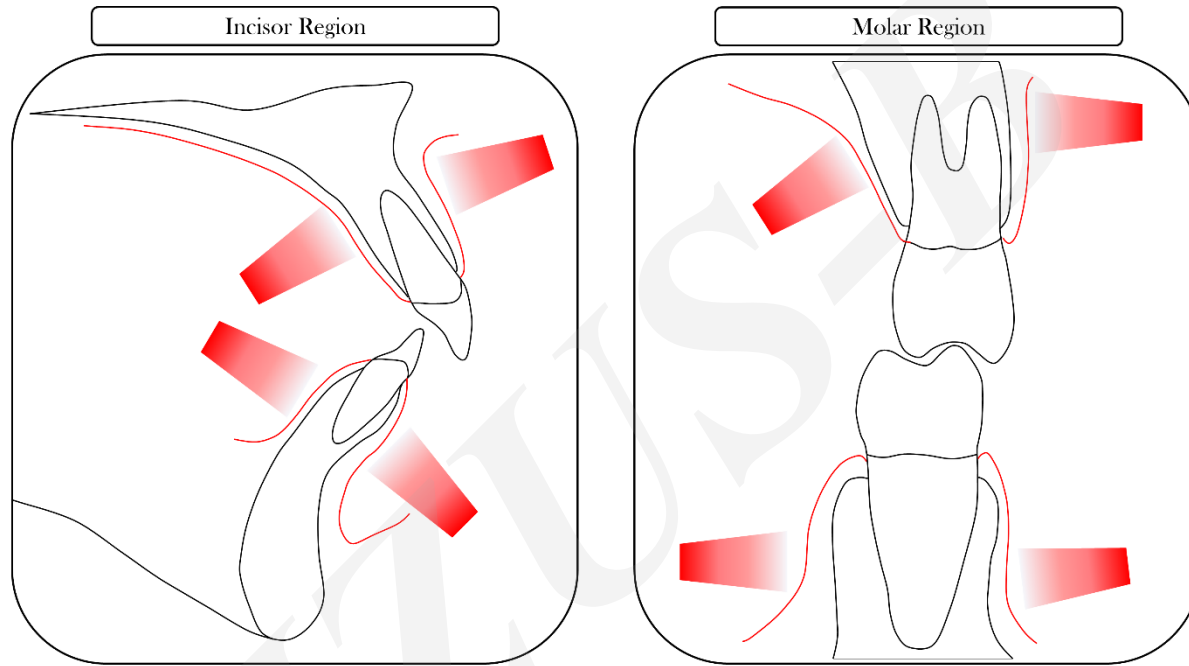
Effect of PBM on Mineralized Tissues

Effect of PBM on the Nervous and Immune System

“PBMT-assisted orthodontics”



Further Research



- Future research should be carefully designed to reveal as completely as possible the cellular and molecular regulatory mechanisms underlying PBMT in the field of orthodontics.
- Such developments will serve to optimize the applied PBMT protocols to ensure the efficacy and safety of PBMT in conjunction with OTM, in so-called PBMT-assisted orthodontics.