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ACADEMIC CERTIFICATES

- Bachelor of Science (Excellent) - Faculty of Science, Beni-Suef University, 2013 – 2016.
- Premaster Degree in Integrated Molecular Physiology (Excellent) - Faculty of Science, Beni-Suef University, 2016 – 2017.
- Diploma in LASER Applications in Biology (Excellent) - LIRA Laser Institute for Research and Application, Beni-Suef University, 2017-2018.
- Master of Science in LASER Applications in Biology - LIRA Laser Institute for Research and Application, Beni-Suef University, 2019-2021. "**Antibacterial laser effects in treating contaminated wounds**" "تأثيرات الليزر المضادة للبكتيريا في علاج الجروح الملوثة"

PUBLICATIONS

1. **Esraa Ahmed**, Ahmed O. El-Gendy, Michael R. Hamblin, and Tarek Mohamed, "The effect of femtosecond laser irradiation on the growth kinetics of Staphylococcus aureus: An *in vitro* study," ***J. Photochem. Photobiol. B Biol.***, vol. 221, p. 112240, Aug. (2021), DOI: 10.1016/j.jphotobiol.2021.112240.

2. A. O. El-Gendy, Y. Obaid, **E. Ahmed**, C. S. Enwemeka, M. Hassan, and T. Mohamed, "The Antimicrobial Effect of Gold Quantum Dots and Femtosecond Laser Irradiation on the Growth Kinetics of Common Infectious Eye Pathogens: An In Vitro Study," ***Nanomaterials***, vol. 12, no. 21, p. 3757, Oct. 2022, DOI: 10.3390/nano12213757

3. Ahmed O. El-Gendy, Ahmed Samir, **Esraa Ahmed**, Chukuka S. Enwemeka, and Tarek Mohamed, "The Antimicrobial Effect of 400 nm Femtosecond Laser and Silver Nanoparticles on Gram-Positive and Gram-Negative Bacteria," ***J. Photochem. Photobiol. B Biol***., vol. 224, (2021).

4. **Esraa Ahmed**, Ahmed O. El-Gendy, Naglaa A. Moniem Radi, and Tarek Mohamed, "The bactericidal efficacy of femtosecond laser-based therapy on the most common infectious bacterial pathogens in chronic wounds: an *in vitro* study," ***Lasers Med. Sci.***, no. ii, (2020), doi: 10.1007/s10103-020-03104-0

5. A. O. El-Gendy *et al.*, "Preparation of zinc oxide nanoparticles using laser-ablation technique: Retinal epithelial cell (ARPE-19) biocompatibility and antimicrobial activity when activated with femtosecond laser," ***J. Photochem. Photobiol. B Biol.***, vol. 234, p. 112540, Sep. 2022, DOI: 10.1016/j.jphotobiol.2022.112540.

6. W. R. Mohamed, N. Mahmoud, F. Abdel Samad, **E. Ahmed**, M. R. Hamblin, and T. Mohamed, "Rapid monitoring of serum albumin as a biomarker of liver and kidney diseases using femtosecond laser-induced fluorescence," ***Spectrochim. Acta Part A Mol. Biomol. Spectrosc.,*** vol. 268, p. 120646, Mar. 2022, DOI: 10.1016/j.saa.2021.120646.

7. H. Kandil, **E. Ahmed**, N. Fouad, O. Ali Dabbous, M. Niazy, and T. Mohamed, "Using Femtosecond Laser Light-Activated Materials: The Biomimetic Dentin Remineralization Was Monitored by Laser-Induced Breakdown Spectroscopy," ***Medicina (B. Aires)***., vol. 59, no. 3, p. 591, Mar. 2023, doi: 10.3390/medicina59030591.