AKEPOGU JACQUELYN

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Skills Summary

Communication skills, Leadership, Adaptability, Creative thinking and Team Work.

Microbial techniques, Biochemical techniques, Immunological techniques, Molecular biology techniques and Cell culture techniques.

Education

Degree / Date of Graduation

- PhD Research Scholar at Manipal Academy of Higher education from 05/2022 to present.
- M.Sc. Microbiology (05/2019) from St. Francis college for Women with an aggregate of 9.37 CGPA
- B.Sc. Microbiology (05/2017) from St. Francis College for Women with an aggregate of 79%
- Certificate course on The Science of Stem Cells from American Museum and Natural History (06/2020)
- Diploma in Intellectual Property Rights (06/2015-05/2016) from St. Francis College for Women
- Board of Intermediate (05/2014) from Sri Chaitanya Junior College with an aggregate of 88%
- Grade 10 (05/2012) from St. Ann's High School, (ICSE) with an aggregate of 75%

Experience

PhD Scholar at LV Prasad Eye Institute, KAR Campus, Hyderabad | Manipal Academy of Higher Education / 2022-present

1. *'Mechanisms for sensing increase in intraocular pressure in corneal endothelial cells.'*

   The objectives of this study are to evaluate the presence of Transient Receptor Potential channels in human corneal endothelial cells and assess if they play a role in modulating the cells response to increased intraocular pressure.

2. *'Evidence for UV induced DNA damage in the corneas of Xeroderma pigmentosa patients.'*

   The objectives of this study were to evaluate the mechanisms involved in the DNA damage response pathway in the corneal tissues of Xeroderma pigmentosa patients alongside healthy corneas.

Publication:

Akepogu, J., Jakati, S., Chaurasia, S., & Ramachandran, C. (2024). Evidence for persistent UV-induced DNA damage and altered DNA damage response in xeroderma pigmentosa patient corneas. *Experimental eye research*, *243*, 109901. https://doi.org/10.1016/j.exer.2024.109901

3. *'Use of Decellularized SMILE (Small-Incision Lenticule Extraction) Lenticules for Engineering the Corneal Endothelial Layer: A Proof-of-Concept'*

The objectives of this study were to use lenticules as a carrier for transplanting the corneal endothelial cells.

Publication:

Hazra, S., **Akepogu, J.**, Krishna, S., Pulipaka, S., Bagga, B., & Ramachandran, C. (2022). Use of Decellularized SMILE (Small-Incision Lenticule Extraction) Lenticules for Engineering the Corneal Endothelial Layer: A Proof-of-Concept. Current Eye Research, 48(3), 251–262. https://doi.org/10.1080/02713683.2022.2151018

Project M.Sc. Dissertation

Generation of electricity by soil microorganism – Arthrobacter globiformis / 2018-2019

The objectives of the project were to test for electricity production with the help of a Microbial Fuel Cell by the wild strain with and without the use of mediators, mutating the organism by conducting UV mutagenesis and looking for change in the electricity output by the mutant strain with and without the use of mediators.

Unacademy

Online Educator / 10/2017-11/2018

My job profile included creating presentations and recording them for GATE Aspirants in the field of microbiology. During my tenure I was the number one educator in the field of Biotechnology/Microbiology.

Secunderabad Diagnostic and Research Centre (SDRC)

Former Intern /08/2018

My job profile included isolating microorganisms from various samples followed by conducting biochemical tests and antibiotic sensitivity testing which helped in the successful identification of the causative organism.

Awards

- Received the **Best Poster Award** at **ARVO Indian Eye Research Group (IERG) 2023** on the topic 'Expression pattern of Transient Receptor Potential Vanilloid channels in human corneal endothelial cells.'
- Received the **Lady Tata Memorial Trust Senior Research Scholarship Award 2023.**
- Qualified **GATE 2022** in Biotechnology.
- Received the **Lady Tata Memorial Trust Junior Research Scholarship Award 2021.**
- Qualified **UGC NET-LS (Assistant Professor) 2020.**

Acknowledgements

- Presented a poster at **ARVO Indian Eye Research Group (IERG) 2021** on the topic 'Repair of Ultra-violet light induced DNA damage in human corneal tissues.'
- Completed a certificate course on **Current Good Manufacturing Practices (cGMP)** training and documentation.
- Participated in a webinar on Stem cells by UKIERI (11-09-20)
- Participated in an Online Scientific Writing Program by Editage (21/05/2020)
- Student Quality Cell Representative of St. Francis College(2018-2019)
- Participated in a One Day National Seminar on Intellectual Property Rights (9/03/2019)
- Participated in an International Conference on "Biology and Therapeutics of HIV and Associated Infections" (Combat HIV) (19-21/01/2019)
- Volunteered for an International Conference on STEM Education and Faculty Development (6-11/11/2017)
- Participated in a workshop on Tissue Culture held by Sandor Lifesciences. (16-17/10/2017)
- Student Co-Ordinator of St. Francis Nightingales (choir) (2015-2017)
- Community Service for blind children at L.V Prasad Eye Institute (2017-2018)