**ANTIMICROBIAL EFFICACY OF *Dialium guineense* (“ICHEKU”) AND Irvingia *gabonensis*(“UJIRI”) against *Streptococcus mutans*AND *Candida albicans***

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DEPARTMENT OF MICROBIOLOGY  
FACULTY OF NATURAL AND APPLIED SCIENCES  
GODFREY OKOYE UNIVERSITY, THINKER’S CORNER, ENUGU STATE  
IN PARTIL FULFILMENT FOR THE AWARD OF A BACHELOR OF SCIENCE (BSc) DEGREE IN MICROBIOLOGY  
July, 2018**

**APPROVAL PAGE**

**This project has been presented to and approved by Godfrey Okoye University, Enugu in patail fulfilment of the requirement for the award of Bachelor of Science (BSc), degree in Microbiology from the Department of Microbiology**

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**DEDICATION**

This work is dedicated to my parents; Mr and Mrs Odo Jonathan

**ACKNOWLEDGEMENT**

I remain deeply grateful to many individuals whose immense and categorical support and contribution have made this work to go into the chronicles of academic works.

I wish to express my gratitude to God Almighty for his love and inexhaustible provision. Also to my parents, Mr. and Mrs. Jonathan Odo who have been my role model from time memorial, thanks for providing the financial and emotional support which without this work would have not been completed. My siblings, Junior, Echezona and Princess, thanks for the criticisms I turned to corrections. My profound gratitude goes to my supervisor, Mrs. Ozokonkwo Onyinye for her guide and motivatory supervision. Because of her I can confidently present this work wherever.

My appreciation equally goes to my HOD Dr. (Mrs.) M. N Unachukwu who always made herself ready to tend to my misunderstandings in the course of doing this work, I remain grateful to all my lecturers in the department most especially Mr. Okolo, Dr. Afunwa, Dr. Ezebialu, Prof. (Mrs) J. I Okafor, Prof. Ndukaokafor and Prof. Eze. I also appreciate the support, consolations and encouragements provided by Anyansi Chidimma; your companionship meant a lot. Ekenem and Ezinne, you girls were also always there for me, I did not forget you too Chioma. To all my colleagues in my department most especially my closest buddy Benedict, Nnamdi, Ezege, Jonadab, and my project partners, Lucyann, Christian and Charity; to my very good friend and brother Ugwueze Onyeka who always prioritized my success and pushed me to work harder, thank you all.

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**ABSTRACT**

The antimicrobial activities of the aqueous, ethanol and methanol stem extracts of *Dialium guineense* and *Irvingia gabonensis* were evaluated against *Candida albicans* and *Streptococcus mutans* using the agar well diffusion technique. The results reveal that the crude aqueous, ethanol and methanol extracts possess antimicrobial activities on the tested organisms with the exception *Dialium guineense* which showed no zone of inhibition against *Streptococcus mutans.* The highest zone of inhibition was exerted by *Irvingia gabonensis* against *C. albicans* and was 24 mm. The minimum inhibitory concentration (MIC) was done by two methods; the broth dilution method and the microdilution method. The first method was between 128 256 mg/ml while the second method which tests for the sensitivity of organisms against very low concentration of extracts only caused an inhibition on *C. albicans* at 1000ug. Also, the minimum biocidal concentration (MBC) of the aqueous and ethanol extracts on majority of the organisms was above 256 mg/ml Meanwhile, only *C. albicans* showed MBC to the aqueous extract of *Irvingia gabonensis* at 120 mg/ml In addition, the phytochemical screening revealed the presence of flavonoids, alkaloids, tannin, saponins, and oxalates. The results of this work suggest further exploitation of the stem of *D. guineense* to possibly unveil its potential use for the treatment of diseases.