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

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**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

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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.

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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.