

**ANTIFUNGAL ACTIVITY OF *Caesalpinia sappan* (Sappan wood) AND  
*Samanea saman* (Rain tree) EXTRACTS ON *Candida albicans***

**THESIS**

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Submitted to the Faculty of the  
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## ABSTRACT

**HERNANDEZ, SHARLYN MHAY V. and TORRES, AINNAH MARIELLE O.** **Antifungal Activity of *Caesalpinia sappan* (Sappan wood) and *Samanea saman* (Rain tree) Extracts on *Candida albicans*.** Undergraduate Thesis. Bachelor of Science in Medical Technology. Cavite State University, Indang, Cavite. November 2016. Adviser: Dr. Adelaida E. Sangalang.

The study was conducted from May to July 2016 in Department of Biological Sciences- College of Arts and Sciences, Cavite State University, Indang Cavite and De la Salle University- Dasmariñas City, Cavite. Generally, it aimed to determine the effect of the individual and combined antifungal activity of *Caesalpinia sappan* and *Samanea saman* extracts to *Candida albicans*. Specifically, the study aimed to: determine the inhibitory effect of *C. sappan* extracts against *C. albicans*; determine the inhibitory effect of *S. saman* extracts against *C. albicans*; determine the inhibitory effect of the combination of *C. sappan* and *S. saman*; and to compare the antifungal activity of the plant extracts with the commercially available antifungal agent.

Antifungal susceptibility test was performed through disc diffusion method. The results from the experiment showed that almost all plant part extracts have inhibitory effect against the growth of *Candida albicans*. All parts of *C. sappan* plant exhibited antifungal effect. Only the leaf extracts of *S. saman* showed inhibitory effect against the test organism. *Candida albicans* was found to be susceptible to combined bark and heartwood aqueous extracts only. The commercially available antifungal agent, showed intermediate inhibitory effect against *Candida albicans*.

## TABLE OF CONTENTS

|                                        | Page |
|----------------------------------------|------|
| TITLE PAGE.....                        | i    |
| APPROVAL SHEET.....                    | ii   |
| BIOGRAPHICAL SKETCH.....               | iii  |
| ACKNOWLEDGEMENT.....                   | iv   |
| ABSTRACT.....                          | vi   |
| TABLE OF CONTENTS.....                 | vii  |
| LIST OF TABLE.....                     | x    |
| LIST OF FIGURES.....                   | xi   |
| LIST OF APPENDIX TABLES.....           | xii  |
| LIST OF APPENDIX FIGURES.....          | xiii |
| LIST OF APPENDICES.....                | xiv  |
| INTRODUCTION.....                      | 1    |
| Objectives of the Study.....           | 3    |
| Significance of the Study.....         | 3    |
| Time and Place of the Study.....       | 4    |
| Scope and Limitation of the Study..... | 4    |
| Definition of Terms.....               | 5    |
| Conceptual Framework.....              | 7    |

|                                                              |           |
|--------------------------------------------------------------|-----------|
| <b>REVIEW OF RELATED LITERATURE.....</b>                     | <b>8</b>  |
| <i>Caesalpinia sappan</i> (Sappan wood).....                 | 8         |
| <i>Samanea saman</i> (Rain tree).....                        | 9         |
| <i>Candida albicans</i> .....                                | 11        |
| Sabouraud's Dextrose Agar.....                               | 13        |
| Fluconazole.....                                             | 13        |
| Antifungal Susceptibility Methods.....                       | 14        |
| Effect of Antimicrobial Combination.....                     | 15        |
| Related Studies.....                                         | 15        |
| Primary Metabolites.....                                     | 18        |
| Secondary Metabolites.....                                   | 18        |
| <b>METHODOLOGY.....</b>                                      | <b>20</b> |
| Materials Used.....                                          | 20        |
| Preparation of Media and Glasswares.....                     | 20        |
| Research Design.....                                         | 20        |
| Collection of Plant Parts and Preparation of Extracts.....   | 21        |
| Collection and Maintenance of the Culture.....               | 24        |
| Subculturing and Standardization of the Inoculum             |           |
| Preparation of Agar Slants.....                              | 24        |
| Inoculating Procedure.....                                   | 24        |
| Standardization of Inocula for <i>Candida albicans</i> ..... | 24        |
| Antifungal Susceptibility Test.....                          | 24        |
| Data Gathered.....                                           | 26        |

|                                                                                                                                 |           |
|---------------------------------------------------------------------------------------------------------------------------------|-----------|
| Analysis of Data.....                                                                                                           | 27        |
| <b>RESULTS AND DISCUSSION.....</b>                                                                                              | <b>28</b> |
| Antifungal Activity of <i>Caesalpinia sappan</i> Parts Extracts<br>on <i>Candida albicans</i> .....                             | 28        |
| Antifungal Activity of <i>Samanea saman</i> Parts Extracts<br>on <i>Candida albicans</i> .....                                  | 30        |
| Combined Antifungal Activity of <i>Caesalpinia sappan</i> and<br><i>Samanea saman</i> Extracts on <i>Candida albicans</i> ..... | 32        |
| <b>SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....</b>                                                                           | <b>35</b> |
| Summary.....                                                                                                                    | 35        |
| Conclusion.....                                                                                                                 | 36        |
| Recommendation.....                                                                                                             | 36        |
| <b>REFERENCES.....</b>                                                                                                          | <b>38</b> |
| <b>APPENDICES.....</b>                                                                                                          | <b>41</b> |

## LIST OF TABLES

| Table |                                                                                                                                                 | Page |
|-------|-------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1     | Diameter zone of inhibition of <i>Candida albicans</i><br>as affected by <i>Caesalpinia sappan</i> parts extracts<br>after 24 h incubation..... | 28   |
| 2     | Diameter zone of inhibition of <i>Candida albicans</i><br>as affected by <i>Samanea saman</i> parts extracts<br>after 24 h incubation.....      | 31   |
| 3     | Diameter zone of inhibition of <i>Candida albicans</i><br>as affected by combined parts extracts<br>after 24 h incubation.....                  | 33   |

## LIST OF FIGURES

| Figure |                                                                                             | Page |
|--------|---------------------------------------------------------------------------------------------|------|
| 1      | Conceptual Framework of the Study.....                                                      | 7    |
| 2      | Flow Diagram in Preparation of Aqueous Extracts.....                                        | 23   |
| 3      | Flow Diagram in Preparation of Methanol Extracts.....                                       | 23   |
| 4      | Flow Diagram of the Determination of Zone of Inhibition<br>of Different Plant Extracts..... | 26   |

## LIST OF APPENDIX TABLES

| Appendix<br>table |                                                                                                        | Page |
|-------------------|--------------------------------------------------------------------------------------------------------|------|
| 1                 | Raw data of Zone of Inhibition of <i>Caesalpinia sappan</i> .....                                      | 42   |
| 2                 | Raw data of Zone of Inhibition of <i>Samanea saman</i> .....                                           | 42   |
| 3                 | Raw data of Zone of Inhibition of Combined<br><i>Caesalpinia sappan</i> and <i>Samanea saman</i> ..... | 43   |
| 4                 | ANOVA for Zone of Inhibition of <i>Caesalpinia sappan</i><br>Parts Extracts.....                       | 43   |
| 5                 | ANOVA for Zone of Inhibition of <i>Samanea saman</i><br>Parts Extracts.....                            | 43   |
| 6                 | ANOVA for Zone of Inhibition of Combined Parts Extracts.....                                           | 44   |

## LIST OF APPENDIX FIGURES

| Appendix<br>figure |                                                                                                                                                       | Page |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| 1                  | Laboratory Equipment used.....                                                                                                                        | 46   |
| 2                  | Materials used.....                                                                                                                                   | 47   |
| 3                  | <i>Samanea saman</i> plant: (a) <i>Samanea saman</i> bark, (b) <i>Samanea saman</i> leaves, both obtained in Bunga, Tanza, Cavite.....                | 47   |
| 4                  | <i>Caesalpinia sappan</i> : (a) <i>Caesalpinia sappan</i> leaves, (b) <i>Caesalpinia sappan</i> heartwood, both obtained from Bunga, Tanza, Cavite... | 48   |
| 5                  | Measuring of plant samples.....                                                                                                                       | 48   |
| 6                  | <i>Caesalpinia sappan</i> leaves and heartwood, and <i>Samanea saman</i> leaves and bark soaked in methanol.....                                      | 49   |
| 7                  | Filtering of Methanol extracts from plant subjects.....                                                                                               | 49   |
| 8                  | Rotary evaporation of methanol extracts.....                                                                                                          | 50   |
| 9                  | <i>Candida albicans</i> procured from University of the Philippines – Manila.....                                                                     | 50   |
| 10                 | (a) Subculturing of <i>Candida albicans</i> on Saboraud Dextrose Agar slant, (b) Subcultured <i>Candida albicans</i> on SDA.....                      | 51   |
| 11                 | Growth of <i>Candida albicans</i> on (a) Saboraud Dextrose Agar medium, (b) Sabouraud Dextrose Agar slant.....                                        | 51   |
| 12                 | Antimicrobial Susceptibility Test.....                                                                                                                | 52   |
| 13                 | Measurement of Zone of Inhibition.....                                                                                                                | 53   |

## LIST OF APPENDICES

| Appendix |                                                                                                      | Page |
|----------|------------------------------------------------------------------------------------------------------|------|
| 1        | Certification of Authenticity of <i>Caesalpinia sappan</i><br>and <i>Samanea saman</i> (Page 1)..... | 55   |
|          | Certification of Authenticity of <i>Caesalpinia sappan</i><br>and <i>Samanea saman</i> (Page 2)..... | 56   |
| 2        | Letter of Intent to UP-Manila.....                                                                   | 57   |
| 3        | Letter of Permission to CAS- Department<br>of Biological Sciences.....                               | 58   |
| 4        | Letter of Permission to CSCS- DLSU-D.....                                                            | 59   |
| 5        | Curriculum vitae of the Researchers.....                                                             | 60   |

# ANTIFUNGAL ACTIVITY OF *Caesalpinia sappan* (Sappan wood) AND *Samanea saman* (Rain tree) EXTRACTS ON *Candida albicans*

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## INTRODUCTION

In tropical and temperate countries, such as in the Philippines, the skin's health of many people can be compromised due to several factors. One of those is the involvement of microorganisms such as some fungi. Different types of fungi live and grow on human skin. Majority of them aren't dangerous; however, when they multiply uncontrollably due to several factors, some can cause infections. One of those potentially harmful organisms is *Candida*. It can cause an infection in the skin, known as *candidiasis* or *cutaneous candidiasis*. It has been reported that isolates of *Candida albicans* accounts for 50%-90% of fungal infections (Martins *et al.* 2015). Babies, adolescents, and even adults, especially the immunocompromised ones are being affected. Moreover, if not treated immediately, *Candida* infections can spread to areas inside the human body, leading to systemic infections.