SCREENING AND CHARACTERIZATION OF ANTIBIOTIC-PRODUCING *STREPTOMYCES* ISOLATED FROM THE SOIL

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ABSTRACT

Oporto, Leonardo Ferraer, Bachelor of Science in Biology, Major in Microbiology, Cavite State University, "Screening and Characterizatioin of Antibiotic-Producing Streptomyces Isolated from the Soil".
Adviser: Dr Yolanda A. Ilagan

The study was conducted to isolate, characterize and possibly identify antibiotic-producing *Streptomyces* from different soil samples.

Thirty two out of 66 *Streptomyces* isolates were found to be positive for antibiotic activity based on agar plug assay. They were inhibitors to at least one of the the test organisms used whhich included *M. luteus*, *S. aureus*, *B. subtilis*, *P. vulgaris*, *E. coli*, *P. flourescense*, *C. crusei*, and *A. niger*. Ecological, morphological, cultural, biochemical and physiological characterizations of these isolates showed that different species of *Streptomyces* thrive on different soil environment and that no significant relationship existed between the type of soil and the isolates antibiotic activity.

The positive antibiotic-producing isolates grew heterogenously on the six types of media used: Bennett's

Agar, Czapeck's Sucrose Agar, Galactose Trptone Agar, Peptone Iron Agar, Lysine Agar and Casein Starch Agar. Likewise, they showed unique characteristics on the tests done.

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SCREENING AND CHARACTERIZATION OF ANTIBIOTIC-PRODUCING *STREPTOMYCES* ISOLATED FROM THE SOIL1/

Leonardo Ferraer Oporto

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INTRODUCTION

In the field of chemotherapy, antibiotics have offered a big help in curing numerous diseases, as simple as a wound infection to more complex ones. Today, the possibilities of cure are fast expanding and new solutions to old problems are found with the advent of more and more antibiotics. Hence the enhanced survival of animals and more importantly man.