



Ain Shams University
Faculty of Pharmacy
Microbiology & Immunology dept.

**Production and characterization of
polyhydroxyalkanoates biopolymer(s) produced
by *Acinetobacter baumannii* isolate P39; *Bacillus
cereus* isolate P83 and *Azomonas
macrocytogenes* isolate P173**

A Thesis

Submitted in Partial Fulfillment of the Requirements for the

PhD degree

In

Pharmaceutical Sciences

(Microbiology and Immunology)

By

Noha Salah Elsayed Yousef

Master (MSC) degree of Pharmaceutical Sciences,

2014



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