Republic of Iraq

Ministry of Higher Education & Scientific Research

Al Muthanna University

College of Science



Study of The Relationship of Virulance Factor with Cytokines Response to Uropathogenic *E.coli* Strain in Diabetic and non diabetic Patients at AL-Muthanna Province

A Thesis Submitted the Partial Fulfillment of the Requirements for the Master's Degree of Science in Biology/ Microbiology

By

Elaf Lateef Neamah AL-Abbas

B.Sc. of Biology

Supervisor

Assist. Prof. Dr Haider Hameed Mutib