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شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم





## جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

## قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة يعبدا عن الغبار













بالرسالة صفحات لم ترد بالأصل







# Molecular epidemiology of Polyomaviruses in Egyptian water environment and its relationship to colorectal cancer in Egyptian patients

### A Thesis

Submitted as a partial fulfillment of requirements for the degree of Master of Science in Microbiology

By:

## Sherihan Samir Hassan Mohamed

(B.Sc. in Microbiology 2013)

DEPARTMENT OF MICROBIOLOGY
FACULTY OF SCIENCE
AIN SHAMS UNIVERSITY

2020





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## Supervisors:

## Prof. Dr. Ahmed Barakat Barakat

Professor of Virology - Microbiology Department - Faculty of Science - Ain Shams University

## Dr. Omar Alfarouk Rabiee El-Sayed

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## Approval Sheet

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**Title:** Molecular epidemiology of Polyomaviruses in Egyptian water environment and its relationship to colorectal cancer in Egyptian patients.

This thesis for M.Sc. Degree has been approved by the following:

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## 3. Prof. Dr. Ahmed Barakat Barakat

Professor of Virology, Microbiology Department, Faculty of Science, Ain Shams University.

#### Date of Examine / /

## Declaration

I declare that the thesis titled "Molecular epidemiology of Polyomaviruses in Egyptian water environment and its relationship to colorectal cancer in Egyptian patients" is my own work and has not previously been submitted to any other university. The references were being checked whenever possible; show the extent to which I have availed myself of the work of other authors.



Sherihan Samir Hassan Mohamed

## Dedication

With all my heart, I dedicate this thesis to my beloved people, my source of inspiration, strength and happiness ...

To the soul of my dearest, Mom. Your life was a blessing, your memory is a treasure, you are loved and missed beyond words and will never be forgotten.

To my family; my father, sister and brother, for their ultimate unconditional love, encouragement and support.

To my friends who make this world a better place to live in, for all the unforgettable memories and laughs they gave to me

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