

بسم الله الرحمن الرحيم
Sudan University of Science and Technology
College of Graduate Studies

Seroprevalence of Parvovirus B19 among Children with Acute Lymphocytic Leukemia in Al- Gazira State

الإنتشار المصلي لفيروس الحطيطة عند الأطفال المرضى بسرطان الدم الليمفاوي الحاد
في ولاية الجزيرة

**A dissertation submitted in partial fulfillment for the requirements of MSc in
Medical Laboratory Science (Microbiology)**

By:
Mariam Awad Ahmed Suliman
B.Sc. Sudan University of Science and Technology (2014)

Supervisor:
Prof. Humodi Ahmed Saeed

2016