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Treatment of cryptosporidiosis using *Nigella* sativa (El Baraka seed oil) conjugated with Chitosan nanoparticles.

A Thesis submitted
In partial fulfillment for the requirement of PhD degree of
Science

By

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2019

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LIST OF ABBREVIATIONS

AE The encapsulation efficiency.

AIDS Acquired immunodeficiency syndrome.

CD4 Cluster designation 4.

CL Cutaneous leishmaniasis.

cm centimetre (unit of length).

CS Chitosan.

CS NPs Chitosan nanoparticles.

CSO Chitosan oligosaccharide.

DD Degree of deacetylation.

DFA Direct fluorescent-antibody.

DNA Deoxyribonucleic acid.

DP Degree of polymerization.

DPX Distyrene Plasticizer Xylene.

DTNB 5,5dithiobis (2-nitrobenzoic acid).

EIAs Antigen-based enzyme immunoassays.

ELISA Enzyme- linked immunosorbent assay.

EU European Union.

FDA American Food and Drug Association.

GSH Glutathione.

HAART Active anti-retroviral therapy.

HBC Hyperimmune bovine colostrums.

HIV Human immunodeficiency virus.

HRP Horse-radish peroxidase enzyme.

IFAT Immunofluorescent-antibody test.

IgG Immunoglobulin G.

IgM Immunoglobulin M.

IMS Immunomagnetic separation.

IU/mL International Units Per Millilitre.

kDa Kilo Dalton.

Kg Kilo gram.

L Litre.

LC Loading capacity.

Mm Micro meter.

MDA Malondialdehyde.

mg Mile gram.

ml Milliliters.

mmol/g Millimol per gram.

MT Massons Trichrome stain.

MW Molecular weight.

nm Nanometer.

NPs Nanoparticles.

NSO Nigella sativa oil.

NTZ Nitazoxanide.

O.D. Optical Density.

PAS Periodic Acid stain.

PBS Phosphate-buffered saline.

PCR *Polymerase* chain reaction.

pg/ml Picograms per milliliter.

PH Power of hydrogen.

PI Post infection.

P-value The degree of significance.

PVM Parasitophorous vacuole membrane.

PZQ Praziquantel.

rpm Revolutions per **minute.**

SBSC Schistosome Biological Supply Centre.

SBSP Schistosome biological supply program.

SCID Severe combined immunodeficiency.

SD Standard deviation.

SPSS Statistical Package For Social Sciences.

TBA Thaiobarbituric acid.

TBRI Theodor Bilharz Research Institute.

TCL Trichloroacetic acid.

TPP Sodium Tripolyphosphate.

UK United Kingdom.

WHO World Health Organization.

X Mean value.

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