



ST. THOMAS COLLEGE, PALAI

UGC APPROVED COLLEGE WITH POTENTIAL FOR EXCELLENCE
REACCREDITED BY NAAC A GRADE CGPA 3.30

CERTIFICATE

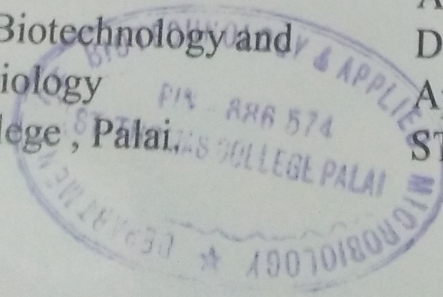
Certified that this is a bonafide report of the project work entitled "*Synthesis and characterization of chitosan nanoparticles as effective antimicrobial agent for food packaging*" carried out by Ms. Amrutha.S.Joy (Reg. NO: 140011016377) in the Department of Biotechnology And Applied Microbiology, St. Thomas college, Palai under the internal guidance of Ms. Praveena George, during the academic year 2014-2016 towards the partial fulfillment of the requirement for the award of Masters Degree in Applied microbiology under Mahatma Gandhi University and that, this research work has not formed the basis for the award of any other Degree or Diploma earlier.

James Joseph
5/9/2016

Praveena George
05/09/2016

Prof. (Mr.) James Joseph
Course Coordinator
Department of Biotechnology and
Applied Microbiology
ST. Thomas college, Palai

Ms. Praveena George
Asst. Professor
Department of Biotechnology and
Applied Microbiology
ST. Thomas college, Palai.



External Examiners



St. Thomas College, Palai

UGC Approved College with Potential for Excellence

Reaccredited by NAAC with A Grade (CGPA 3.30)

August 2016

CERTIFICATE

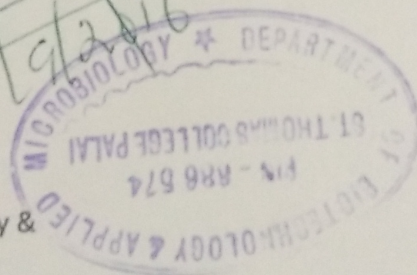
This is to certify that the dissertation entitled "Proteome profiling of GC1-spg cells over-expressing CARD+SAND domains of AIRE " by Angel Benita Christy for the award of the degree of Master of Science in Biotechnology, Mahatma Gandhi University, Kottayam, is an authentic record of original research work carried out under my supervision at Department of Biotechnology and Applied Microbiology, St. Thomas College Palai . It is also certified that the work presented in this dissertation has not been submitted earlier for any other degree or diploma.

Prof. James Joseph

Course Coordinator

Department of Biotechnology &

Applied Microbiology



Ms. Praveena George

Assistant Professor

Department of Biotechnology &

Applied Microbiology

Examiners :

1. Dr. Sajesh Kumar .
2. [Signature]
6/9/16



St. Thomas College, Pala
UCC APPROVED College with Potential for Excellence

CERTIFICATE

*Certified that this is a bonafide report of the project work entitled "Deodorant activity of *Acacia caesia* against foul smell producing microorganisms isolated from underarm region of human volunteers" Carried out by Miss. **BABITHA BABU, Reg. No:140011016379** in the Department of Applied microbiology & Biotechnology St. Thomas College, Pala, under the guidance of **Mr. NOBY MATHEW** during the academic year 2013- 2015 towards the partial fulfillment of the requirement for the award of Masters Degree in Biotechnology under Mahatma Gandhi University.*

Prof. James Joseph

Course Coordinator

Dept. of Applied Microbiology & Biotechnology

St. Thomas College Pala

Mr. Noby Mathew

Faculty Member

External examiners....

1. *Dr. Seivick Kumar M.K.*

2.

[Signature]



St. Thomas College, Pala

UCC APPROVED College with Potential for Excellence

CERTIFICATE

Name : **BAIJUMON C**

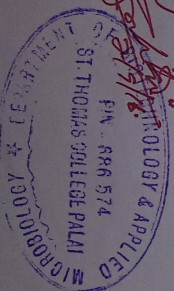
Reg.No: **140011016380**

This is to certify that the dissertation entitled, **OPTIMIZATION OF BIOFLOCCULANT PRODUCTION BY BACTERIAL SPECIES AND ITS EFFECTIVENESS IN WASTEWATER TREATMENT**, is an authentic work carried out by **Mr. Baijumon C**, as prescribed by Mahatma Gandhi University for the award of Master of Science in Biotechnology during the academic year **2015-2016**.

Date : **6.09.2016**

Teacher In-charge ^{ANNA}
Anupama K.S.P.

Examiners: **Dr. S. Jashajumon. N. 10.**



[Signature]

Head of the Department: H
HEAD, DEPT. OF MICROBIOLOGY &
APPLIED BOTANY
SR. THOMAS COLLEGE
Pala - 686 574



August 2016

CERTIFICATE

This is to certified that the dissertation entitled "**An assessment of the physicochemical and microbiological standards of water quality in major rivers of Southern Kerala during summer season**" is an authentic record of the project done by Ms. Chithra PK at St. Thomas College Pala, under the guidance of Dr. Abhilash M, Assistant Professor, Department of Biotechnology and Applied Microbiology in partial fulfillment of the requirement for the award of Degree of Master of Science in Biotechnology at St. Thomas College, Palai , and this Dissertation has not formed the basis for the award of any other degree or diploma earlier.

Lecturer in charge

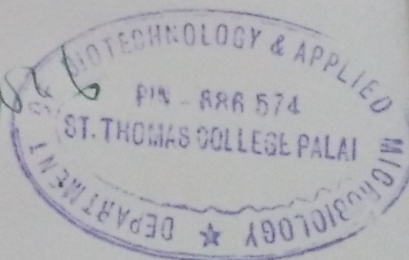
Course Co-ordinator

AOB
7/9/2016

Archana Cheriyan

Prof. James Joseph Examiners:

1. *Dr. Pajeshkumar P.O.*
2. *[Signature]*



**DEPARTMENT OF BIOTECHNOLOGY AND APPLIED
MICROBIOLOGY**

ST. THOMAS COLLEGE, PALA

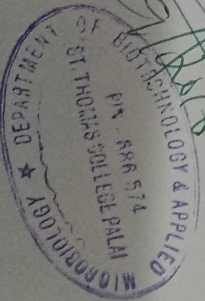
CERTIFICATE

Name : DIMPLE ANNIE JOHNS

Reg.No : 140011016382

This is to certify that the dissertation entitled, SYNTHESIS OF SILVER NANOPARTICLES FROM THE LEAF EXTRACT OF INDIAN BLACK BERRY (SYZYIUM CUMINI) is an authentic work carried out by Ms. Dimple Annie Johns, as prescribed by Mahatma Gandhi University for the award of Master of science in Biotechnology during the academic year 2015-2016.

Prof: James Joseph
Course co ordinator
Department of biotechnology
and applied microbiology



Teacher in charge
7/9/2016

Mrs. Archana cherian
Internal guide

Dr Sajish Kumar, M.Sc.
3/9/16



ST. THOMAS COLLEGE, PALAI

UGC APPROVED COLLEGE WITH POTENTIAL FOR EXCELLENCE
REACCREDITED BY NAAC A GRADE CGPA 3.30

CERTIFICATE

Certified that this is a bonafide report of the project work entitled
"MOLECULAR IDENTIFICATION OF UTI CAUSING
BACTERIA AND ITS ANTIMICROBIAL INHIBITION BY
BOERHAVIA DIFFUSA" carried out by Ms. LIJO JOSE
(Reg. NO: 140011016384) in the Department of Biotechnology And
Applied Microbiology, St. Thomas college, Palai under the internal
guidance of Ms. Praveena George, during the academic year 2014-
2016 towards the partial fulfillment of the requirement for the award
of Masters Degree in Applied microbiology under Mahatma Gandhi
University and that, this research work has not formed the basis for the
award of any other Degree or Diploma earlier.

James Joseph
6/9/2016

Prof. (Mr.) James Joseph
Course Coordinator
Department of Biotechnology and
Applied Microbiology
ST. Thomas college, Palai

Praveena George
06/09/2016

Ms. Praveena George
Asst. Professor
Department of Biotechnology and
Applied Microbiology
ST. Thomas college, Palai.

External Examiners

1. *Dr. Sajesh Kumar N K* 2. *[Signature]*



ST. THOMAS COLLEGE, PALAI

Re-accredited with A grade by NAAC

UGC approved College With Potential For Excellence

August 2016

CERTIFICATE

This is to certified that the dissertation entitled, **CYTOGENETIC ANALYSIS AND DETECTION OF P53 AND XPD GENE POLYMORPHISM STATUS IN THE INHABITANTS OF HIGH NATURAL BACKGROUND RADIATION AREA (HNBRA) OF KARUNAGAPALLY, KERALA** is an authentic work carried out by **Ms. Sneha Sandra P.S**, under the supervision and guidance of **Dr. S. Hariharan**, Associate Professor, Laboratory of Cytogenetics and Molecular Diagnostics, Division of Cancer Research, Regional Cancer Centre, Thiruvananthapuram, in partial fulfillment for the award of Degree of **Master of science in Biotechnology** during the academic year **2015-2016**. I further assure that this work has no been previously formed the basis of any degree in University.

Lecturer in charge

Mrs. Archana Cherian

Examiners

1. *Dr. S. Sajeesh Kumar N.K.*
2.



[Signature]
Head of the Department