

#### भारतीय कृषि अनुसंधान परिषद केन्द्रीय समुद्री मास्म्यिकी अनुसंधान संस्थान [कृषि अनुसंधान एवं शिक्षा विभाग, कृषि मंत्रालय, भारत सरकार]

Indian Council of Agricultural Research

# Central Marine Fisheries Research Institute



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Phone: 91 484 2394867/2391407 Fax: 91 484 2394909/2396685 Email. director@cmfri.org.in Web: www.cmfri.org.in



#### CERTIFICATE

This is to certify that the dissertation entitled "Genetic identification and phylogenetic status of Scomberomorus species from Gujarat" is an authentic record of the work carried out by Ms. Afnan. K, M.Sc. (Biotechnology) student of Department of Biosciences, Mangalore University, Mangalagangothri, Konaje. She has carried out the titled work under my supervision and guidance, in partial fulfilment of the requirement for the degree of Master of Science, under the Faculty of Mangalore University. It is certified that no part of work has been submitted before for any other degree or diploma. Ms. Afnan.K has carried out this project during the period from June 2018 to August 2018.

Major Advisor

Dr. Jeena N.S.

Scientist

Marine Biotechnology Division

CMFRI, Cochin

Dr. P. Vijayagopal

**HOD & Principal Scientist** 

Marine Biotechnology Division

CMFRI, Cochin



VALUED

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भारत सरकार / Govt. of India बोणिज्य व उद्योग मंत्रालय / Ministry of Commerce & Industry पौधा जैवटेकनोलजी प्रभाग केन्द्रीय कॉफी अनुसंधान का एक एकक कॉफी बोर्ड

डा. एस. राधाकृष्णन रोड मानसगंगोत्रि, मैसूर - ५७० ००६

Plant Biotechnology Division Unit of Central Coffee Research Institute Coffee Board,

Dr. S. Radhakrishnan Road, Manasagangothri, Mysore - 570 006

Date: 01.08.2018

#### CERTIFICATE

This is to certify that Ms. ANUSHA H. R. [Reg. No.175114002] of M.Sc. Biotechnology Program, Department of Biosciences, Mangalore University, Mangalagangothri - 574 199, Karnataka has carried out her project work entitled "Tissue Culture and Molecular marker studies in Coffee" under the guidance of Dr. Manoj Kumar Mishra, Divisional Head, Tissue Culture & Biotechnology Division, Coffee Board, Manasagangothri, Mysore from 01-06-2018 to 31-07-2018.

(Dr. MANOJ KUMAR MISHRA)

प्रमामीय प्रधान (पीघा जैक्टेक्नोलजी) कॉफी बोर्ड, डा. एस. रासकृष्णन रोड, मानसमंगोत्री, भैसर-570 006 DIVISIONAL HEAD (Plant Biotechnology) Coffee Board,Dr.S.Radhakrishnan Road, Manasagangothri, MYSORE-570 006



Dr. K.R. Sridhar

Adjunct Professor Department of Biosciences Mangalore University Mangalagangotri 574 199 Mangalore, India

Phone: +91 824 2287 261 Email: kandikere@gmail.com

#### CERTIFICATE

This is to certify that the dissertation titled "BIODIVERSITY, NUTRITIONAL AND BIOACTIVE POTENTIAL OF MACROFUNGI OF SCRUB JUNGLES" submitted by Dattaraj H.R. for the partial fulfillment of degree of Master of Science in Biotechnology under the Faculty of Science, Mangalore University is based on the results of the experiments carried out by him under my guidance and direct supervision during 2018-2019. I declare that the dissertation or a part thereof has not been the basis for any degree or diploma.

May 06, 2019 Mangalagangotri

Delevel 25/1/19 JALVED Dr. Monika Sadananda

Professor and Coordinator

M. Sc. Biotechnology.

M.Sc. Biotechnology Course DEPARTMENT OF BIO-SCIENCES Mangalore University Mangalagangothri-574199 Karnataka State, (India)

Dr. Prashantha Naik Chairperson,

Department of Biosciences Mangalore University Mangalagangotri-57-199 Karnataka State (India)

Research Supervisor

Dr. K. R. Sridhar M.Sc., Ph.D. Professor (Anjunct)
EX UGC-BSR Faculty Fellow Department of Biosciences Mangalore University
MANGALAGANGOTHRI-574 199. Mangalore, Karnataka, India.

Examiners:

1. @www.ath 27/5/19
2. D. de and 27/5/19

3.



# UNIVERSITY OF AGRICULTURAL SCIENCES

Department of Plant Biotechnology, GKVK Campus, Bengaluru - 560 065 India

Dr. K. M. Harinikumar

Professor

E-mail: harinikm@rediffmail.com

Mobile: 9448832077

#### CERTIFICATE

This is to certify that Ms. Divya S (175114004) studying in Mangalore University, Mangalagangothri for the year 2017-2019 has successfully completed her project work at the Department of Plant Biotechnology, University of Agricultural Sciences, GKVK, Bengaluru with the fulfilment of the requirements of the program from 11th June 2018 to 5th August 2018 on the topic "Characterization of biocontrol agents against wilt causing Ralstonia solanacearum Bacteria" under my guidance and supervision.

Date: 06.08.2018

Guide and Supervision

Dr. K.M. HARINIKUMAR

Professor Department of Plant Biotechnology UAS, GKVK, Bengaluru-560 065 email: harinikm@redifimail.com.



(DEEMED TO BE UNIVERSITY)

Cognised under Sec 3(A) of the UGC Act 1956

Accredited by NAAC with 'A' Grade

## YENEPOYA RESEARCH CENTRE

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Email: research@yenepoya.edu.in dydirectoryrc@yenepoya.edu.in Ph +91 8242204668/69/70, Ext. 2035

22.05.2019

#### CERTIFICATE

This is to certify that the dissertation entitled "Antiangiogenic, Antioxidant and Matrix metalloproteinase inhibitory activity of Tinospora cordifolia" is an authentic record of the work carried out by Ms. Fathimath Zaeema M.P., M.Sc. (Biotechnology) student of Department of Biosciences, Mangalore University, Mangalagangothri, Konaje She has carried out the titled work under my supervision and guidance, in partial fulfilment of the requirement for the degree of Master of Science, under the Faculty of Mangalore University. It is certified that no part of work has been submitted before for any other degree or diploma. Ms. Fathimath Zaeema M.P., has carried out this project during the period from June 2018 to August 2018.

VALUED

Major Advisor

Dr. Ashwini Prabhu

Assistant Professor

Yenepoya Research Centre

Dr. Rekha P.D

Deputy Director

Yenepoya Research Centre
Deputy Director

Yenepoya Research Centre Yenepoya (Deemed to be University) Deralakatte, Mangaluru-575018



# UNIVERSITY OF AGRICULTURAL SCIENCES

Department of Plant Biotechnology, GKVK Campus, Bengaluru – 560 065 India

Dr. K. M. Harinikumar
Professor
E-mail: harinikm@rediffmail.com
Mobile: 9448832077

#### CERTIFICATE

This is to certify that Ms. Ghousiya Samreen (175114006) studying in Mangalore University, Mangalagangothri for the year 2017-2019 has successfully completed her project work at the Department of Plant Biotechnology, University of Agricultural Sciences, GKVK, Bengaluru with the fulfilment of the requirements of the program from 11<sup>th</sup> June 2018 to 5<sup>th</sup> August 2018 on the topic "Isolation and Molecular characterization of Pseudomonas fluorescence and its effect on finger millet" under my guidance and supervision.

Date: 06.08.2018

Guide and Supervision

Professor

Department of Plant Biotechnology UAS, GKVK, Bengaluru-560 065 email: harinikm@rediffmail.com.



Dr. K.R. Sridhar

Adjunct Professor Department of Biosciences Mangalore University Mangalagangotri 574 199 Mangalore, India

Phone: +91 824 2287 261 Email: kandikere@gmail.com

#### CERTIFICATE

This is to certify that the dissertation titled "DIVERSITY AND NUTRACEUTICAL VALUE OF MACROFUNGI OF SCRUB JUNGLES" submitted by Jagadish B.R. for the partial fulfillment of degree of Master of Science in Biotechnology under the Faculty of Science, Mangalore University is based on the results of the experiments carried out by him under my guidance and direct supervision during 2018-2019. I declare that the dissertation or a part thereof has not been the basis for any degree or diploma.

Date: May 8,2019 Mangalagangotri

Dr. Monika Sadananda

Professor and Coordinator
M. Sc. Brotechnology.
Sc. Biotechnology.
EPARTMENT OF BIO-SCIENCES

Mangalagangothri-574199 Karnataka State, (India)

Dr. Prashantha Naik

Chairperson,

CHAIRMAN

Department of Bio-Sciences

Mangalore University

Mangalagangotri-574199 Karnataka State (India) K. R. Sridhar

Research Supervisor

Dr. K. R. Sridhar M.Sc., Ph.D. Professor (Ad (March) EVUGC-BSR Faculty Fellow

Department of Biosciences
Mangalore University
MANGALAGANGOTHRI-574 199.

Mangalore, Karnataka, India.

Examiners:

1. (phimath 27/5/10

2. Declarand

3. 27/5/19

#### CERTIFICATE

This is to certify that the research work entitled "Separation and quantification of brain monoamines by HPLC" is a bonafide work of Ms. Megha Bhat Agni towards the partial fulfillment of master's degree in Biotechnology of Mangalore University carried out under the guidence of Dr.Monika Sadananda, Professor & Coordinator, M.Sc. Biotechnology Program, Department of Biosciences, Mangalore University, Mangalagangothri. This work is original and has not been submitted in part or full to any other university for any other degree or diploma.

Dr. Monika Sadananda

Professor & Coordinator

Department of Biosciences

M.Sc. Biotechnology Program MANGALORE UNIVERSITY

Department of Biosciences

Mangalore University, Mangalagangothri.

Dr. Prashant Naik

The Chairperson

Department of Biosciences

Mangalore University Mangalore University, Mangalagangoth Angalagangotri-574199 Sarnataka State (India)

Examiners:

VALUER



# भा.कृ.अनु.प.-काजूअनुसंधाननिदेशालय (का.अनु.नि) ICAR-DIRECTORATE OF CASHEW RESEARCH (DCR) पत्तर - 574 202 डी के कर्नाटक भारत

पुत्तुर - 574 202, डी.के., कर्नाटक, भारत PUTTUR - **574 202, D.K., KARNATAKA, INDIA** 



Dr. Siddanna Savadi Scientist No. NRCC (Biotech)/
Dated: 27/5/2019

#### CERTIFICATE

This is to certify that the project work entitled "Transferability of mango EST based SSRs and genetic diversity analysis in Cashew (Anacardium occidentale L.)" was duly performed by Ms.Megha V S of II year M. Sc. (Biotechnology) students of Mangalore University, Mangalagangothri, Mangalore under my supervision at ICAR-Directorate of Cashew Research(DCR), Puttur, Dakshina Kannada, Karnataka-574 202, for a period of two month from June 08, 2018 to July 28, 2018. I have no objection for them to add these results in their thesis, submitted in partial fulfilment of the requirements for award of the Master of Sciences (M.Sc.) in Biotechnology from Mangalore University, Mangalagangothri, Mangalore.

(SIDDANNA SAVADI)

Dr. Siddanna Savadi Scientist (Biotechnology) ICAR - Directorate of Cashew Research Puttur - 574 202, D. K. Karhataka Ph.: 08251-231530 Fax: 08251-234350

Ph: 08251-230902 Fax: 08251-234350

#### CERTIFICATE

This is to certify that the research work entitled work "Effect of Ionising Radiation on Waste Water Treatment" is a bonafide work of Ms Paramashree Deepa B. K. (Reg. No. 175114010) towards the partial fulfilment of the Master's degree in Biotechnology of Mangalore University carried out under the guidance of Dr. Monika Sadananda, Professor & Coordinator, MSc Biotechnology, Department of Biosciences, Mangalore University, Mangalagangothri, Mangalore. This work is original and has not been submitted in part or full to any other University for any other degree or diploma.

Dr. Monika Sadananda
Professor

Department of Biosciences

MANGALORE UNIVERSITY

Dr. Monika Sadananda

Professor & C0-ordinator / Project Guide

Dept. of Biosciences

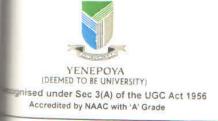
Chairperson

Dept. of Biosciences

VALUED

Examiners:

Bedarda 27/5/19



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22.05.2019

#### CERTIFICATE

This is to certify that the dissertation entitled "Domain Study Of BRCA1 Gene And Its Genetic Profile Alterations In A Small Cohort Of Breast Cancer Patient Population And Extrapolating The Data To Determine The Prevalence Of BRCA1 Mutation" is an authentic record of the work carried out by Ms. Pratheeksha P Shetty, M.Sc. (Biotechnology) student of Department of Biosciences, Mangalore University, Mangalagangothri, Konaje. She has carried out the titled work under my supervision and guidance, in partial fulfilment of the requirement for the degree of Master of Science, under the Faculty of Mangalore University. It is certified that no part of work has been submitted before for any other degree or diploma. Ms. Pratheeksha P Shetty has carried out this project during the period from June 2018 to August 2018.

Major Advisor

Dr. Suparna Laha

Assistant Professor

Yenepoya Research Centre

Dr. Rekha P.D

Deputy Director

Yenepoya Research Centre

Deputy Director

Yenepoya Research Centre Yenepoya (Deemed to be University) Deralakatte, Mangaluru-575018



# Institute for Communicative & Cognitive Neurosciences

(Registered under the Society for Rehabilitation of Cognitive & Communicative Disorders, Kerala, India, No.T.460/98) Kavalappara, Shoranur, Kerala State 679 523 INDIA Phone - +91 (0466) 222 4869/222 3038 E-mail – icconssrr@gmail.com Website - www.iccons.in

AN AUTONOMOUS INSTITUTE UNDER GOVERNMENT OF KERALA

### **CERTIFICATE**

This is to certify that the dissertation entitled "Vitamin D receptor gene polymorphism is not associated with serum vitamin D levels among the school children of central Kerala" is an authentic record of the work carried out by Ms. Rajvi R. Patel, M.Sc. (Biotechnology) student of Department of Biosciences, Mangalore University, Mangalagangothri, Konaje. She has carried out the titled work under my supervision and guidance, in partial fulfilment of the requirement for the degree of Master of Science, under the Faculty of Mangalore University. It is certified that no part of work has been submitted before for any other degree or diploma. Ms. Rajvi R. Patel has carried out this project during the period from June 2018 to August 2018.

Major Advisor

Dr. Anitha Ayyappan Pillai

Associate Professor

Department of Neurogenetics

CCONS, Kerala

Dr. Anitha Ayyappan Pillai Associate Professor
Department of Neurogenetics
Institute for Communicative and Cognitive
Neurosciences (ICCONS) Shoranur, Kerala - 679 523



#### **MANGALORE**

## UNIVERSITY

Department of Biosciences Mangalagangothri-574199 Karnataka, India.

# Certificate

This is to certify that the research work entitled "Acetylcholinesterase, NADPH-Diaphorase Activity and Immediate early gene expression induced by LPS in Bird Brain" is a bonafide work of Ms. Sindhu. S (Reg. No. 175114013) towards the partial fulfilment of the Master's degree in Biotechnology of Mangalore University carried out under the guidance of Dr. Monika Sadananda, Professor and Coordinator, MSc Biotechnology Program, Department of Biosciences, Mangalore University. This work is original and has not been submitted in part or full to any other University for any other degree or Diploma.

Place: Mangalagangethi Dedered

Date: 25/5/19 M.Sc. BIOLOGIE BIO-SULENCES

DEPARTMENT OF BIO-SULENCES

Mangalore University

Examiners: 1. Mangalagangothri-574199 (arnataka State, (India)

2. Dedarda

CHAIRMANDepartment of Bio-Sciences Mangalore University .Mangalagangotri-574199 Karnataka State (India)

VALUED

#### **CERTIFICATE**

This is to certify that the project work entitled "Molecular characterization of interspecific hybrids and genetic diversity analysis in cashew (Anacardium occidentale L.)"

Mangalore University PG centre, Mangalagangothri, in the partial fulfillment for the award of degree of the Master of Sciences in Biotechnology, is bonafied record of the work carried out under the guidance of Dr. Siddanna Savadi Scientist at ICAR-Directorate of Cashew Research(DCR), Puttur, Dakshina Kannada, Karnataka-574 202, for a period of two month from June 08, 2018 to July 07, 2018.

Co-ordinator 25/5/1
M.Sc. Biotechnology Course

DEPARTMENT OF BIO-SCIENCES

Mangalore University

Mangalagangothri-574199

Karnataka State, (India)

Examiner 1:

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Examiner 2

27/1/19

VALUED



# Institute for Communicative & Cognitive Neurosciences

(Registered under the Society for Rehabilitation of Cognitive & Communicative Disorders, Kerala, India, No.T.460/98) Kavalappara, Shoranur, Kerala State 679 523 INDIA Phone - +91 (0466) 222 4869/222 3038 E-mail – icconssrr@gmail.com Website - www.iccons.in

# AN AUTONOMOUS INSTITUTE UNDER GOVERNMENT OF KERALA

#### **CERTIFICATE**

This is to certify that the dissertation entitled "CYP2R1 SNP rs10741657 is not associated with vitamin D levels in Kerala population" is an authentic record of the work carried out by Ms. Yashashwini, M.Sc. (Biotechnology) student of Department of Biosciences, Mangalore University, Mangalagangothri, Konaje. She has carried out the titled work under my supervision and guidance, in partial fulfilment of the requirement for the degree of Master of Science, under the Faculty of Mangalore University. It is certified that no part of work has been submitted before for any other degree or diploma. Ms. Yashashwini has carried out this project during the period from June 2018 to July 2018.

Major Advisor

Dr. Anitha Ayyappan Pillai

Associate Professor

Department of Neurogenetics

ICCONS, Kerala

Dr. Anitha Ayyappan Pillai
Associate Professor
Department of Neurogenetics
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