

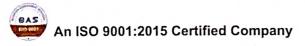
Internship Training Certificate

This is to	certify that Mr/ Ms	ABINESH.S				
Department of	BIOTECHNOLOGY,	MUTHAYAMMAL	COLLEGE	OF ARTS	& SCIENCE	has
learned and suc	cessfully completed b	y the Internship co	ourse of	BIO-PWAR	MA TECHNOL	26 ₁ Y
AND	СНROM <mark>A</mark> TOGRAPHI	C TECHNIQUES	1800		condu	cted by
VJ BIOTECH,	Coimbatore from <u>25 (</u>	05.2023 to 10.06.	2023_			

Course Organizer



Managing Director





10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. ABOORVA.C* (21UBT002) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with **Acme ProGen Biotech (India) Private Limited**, for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. ABOORVA.C all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited







DIAGNOSIS | RESEARCH | EDUCATION

196/1, Saraswathi Duraiswamy Building, Kamarajanar Road, Attur - 636 102, Salem, Tamilnadu, India.

Certificate of Internship

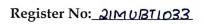
This is to certify that Dr/Mr/Mrs/Miss

5. ARUNA, DEPARTMENT OF BIOTECHNOLOGY,
MUTHAYAMMAL ARTS & SCIENCE COLLEGE ias Successfully completed an Internship

Training Programme at Microtech Laboratories, Attur, Salem from 29:05:2023 to 13:06:2023 in the filed of Microbiology, Biochemistry, Hematology, Clinical Pathology and Molecular Biology.

During the internship, he/she exhibited exceptional dedication, professionalism and a strong desire to learn.

A. Senthilkumar Managing Director Dr. Senbagam Duraisamy





Internship Training Certificate

This is to certify that Mr /Ms. BHARATH .V	
Department of BIOTECHNOLOGY, MUTHAYAMMAL COLLEGE OF ARTS	& SCIENCE has
learned and successfully completed by the Internship course of <u>BIO-PHARMB</u>	TECHNOLOGY
AND CHROMATOGRAPHIC TECHNIQUES	conducted by
VJ BIOTECH , Coimbatore from <u>25.05. 2023</u> to <u>10. 06. 2023</u>	





Managing Director





DIAGNOSIS | RESEARCH | EDUCATION

196/1, Saraswathi Duraiswamy Building, Kamarajanar Road, Attur - 636 102, Salem, Tamilnadu, India.

Certificate of Internship

This is to certify that Dr/Mr/Mrs/Miss

5. DEEPIKA, DEPARTMENT OF BIOTECHNOLOGY, MUTHAYAMMAL ARTS & SCIENCE COLLEGE has Successfully completed an Internship

Training Programme at Microtech Laboratories, Attur, Salem from 29.05.2023 to 13.06.2023. in the filed of Microbiology, Biochemistry, Hematology, Clinical Pathology and Molecular Biology. During the internship, he/she exhibited exceptional dedication, professionalism and a strong desire to learn.

A. Senthilkumar Managing Director

Executive Director

16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Devi. V B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

Dr.M. Geetha Coordinator

Er.X. Ganesh Research Specialist Dr. V.K.\Evanjelene Director & Research Scientist





DIAGNOSIS | RESEARCH | EDUCATION

196/1, Saraswathi Duraiswamy Building, Kamarajanar Road, Attur 636 102, Salem, Tamilnadu, India.

Certificate of Internship

This is to certify that Dr/Mr/Mrs/Miss

6.DEVIKA, DEPARTMENT OF BIOTECHNOLOGIY,

MUTHAYAMMAL ARTS & SCIENCE COLLEGE as Successfully completed an Internship

Training Programme at Microtech Laboratories, Attur, Salem from 29:05:2023 to 13:06:2023.

in the filed of Microbiology, Biochemistry, Hematology, Clinical Pathology and Molecular Biology.

During the internship, he/she exhibited exceptional dedication, professionalism and a strong desire to learn.

A. Senthilkumar Managing Director Dr. Senbagam Duraisamy



10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. DHARANI.B* (21UBT008) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with Acme ProGen Biotech (India) Private Limited, for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. DHARANI.B all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited



16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Dharani . S B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

(yey e_d Dr.fM. Geetha Coordinator

Er. V. Ganesh Research Specialist Dr. V.K. Evanjelene Director & Research Scientist



Internship Training Certificate

This is to certify that Mr /MsQINESH. 61	1,	
Department of BIOTECHNOLOGY, MUTHAYAMMAL COLLEGE OF ARTS A	& SCIENCE	has
learned and successfully completed by the Internship course of <u>BIO-PHARMA</u>	TECHNOLOUY	
AND CHROMATOGRAPHIC TECHNIQUES	conducted	by
VJ BIOTECH, Coimbatore from <u>2,5. 05. 2023</u> to <u>10. 06. 2,023</u>		

Course Organizer



Managing Director

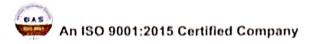
16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Divya. V B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

Certe // Dr. M. Geetha Coordinator

Er. V. Ganesh Research Specialist Dr. V.K. Evanjelene Director & Research Scientist





10.06.2023 Salem

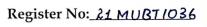
Internship certificate

This is to certify that, *Mr. GOKULA KRISHNAN.V* (21UBT013) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with **Acme ProGen Biotech (India) Private Limited,** for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During his internship, he was very sincere, diligent and dedicated towards his responsibility. He completed his tasks really good.

We wish Mr. GOKULA KRISHNAN. V all the best for all his future endeavors.

For Acme ProGen Biotech (India) Private Limited







Internship Training Certificate

This is to co	ertify that Mr /Ms	KARTHICK. M		
Department of	BIOTECHNOLOGAY	, MUTHAYA MMAL	COLLECTE OF ARTS	2 & SCIENCE has
learned and succ	essfully completed by t	the Internship cours	e of BIO-PHARMA	TECHNOLOGY
AND	CHROMATOGRAPHIC	TECHNIQUES	The state of the s	conducted by
VJ BIOTECH, C	Coimbatore from 25.05.	2023 to 10.06. 202	23_	





Managing Director



Internship Training Certificate

This is to cer	tify that Mr /MsKAR	THIKRAJA. R	
Department of _	BIOTECHNOLOGY, MI	JTHAYAMMAL COLLEGE OF AR	RIS & SCIENCE has
learned and succes	ssfully completed by the In	nternship course of <u>RIO - PHARMA</u>	TECHNOLOGY
AND	CHROMATOGRAPHIC	TECHNIQUES	conducted by
VJ BIOTECH, Co	imbatore from <u>25.05.2023</u>	to 10.06.2023	





Managing Director





DIAGNOSIS | RESEARCH | EDUCATION

196/1, Saraswathi Duraiswamy Building, Kamarajanar Road, Attur - 636 102, Salem, Tamilnadu, India.

Certificate of Internship

This is to certify that Dr/Mr/Mrs/Miss

5. KAVIBHARATHI, DEPARTMENT OF BIOTECHNOLOGY,

MUTHAYAMMAL ARTS & SCIENCE COLLEGE has Successfully completed an Internship

Training Programme at Microtech Laboratories, Attur, Salem from 29:05:2023 to 13:06:2023.

in the filed of Microbiology, Biochemistry, Hematology, Clinical Pathology and Molecular Biology.

During the internship, he/she exhibited exceptional dedication, professionalism and a strong desire to learn.

A. Senthilkumar Managing Director

Dr. Senbagam Duraisamy

16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Kiruthika. S B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

Dr.M. Geetha Coordinator

Discover & Develop

Er: V. Ganesh Research Specialist

Dr. V.K. Evanjelene Director & Research Scientist



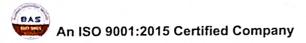
16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Kiruthika. V B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

ywe_d/ Dr. M. Geetha Coordinator

Ér/V. Ganesh Research Specialist Dr. V.K. Evanjelene Director & Research Scientist





10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. MANJUPRIYA.B* (21UBT021) student of 2rd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with **Acme ProGen Biotech (India) Private Limited,** for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. MANJUPRIYA.B all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited



Rasipuram Main Road . Vaiyappamalai.

Regi.No: NMKLALL20190006415

Cell: 9443027968

8072027080

INTERNSHIP CERTIFICATE

This is to certify that MISS. <u>PADMAPRIYA.M.M.</u>
(Reg no; 21MUBT1016) B.Sc (III rd year), <u>Muthayammal</u>
college of arts & science, Rasipuram, -TK, namakkal -637408.

She has undergone 15 days (25.05.2023 to 10.06.2023)
internship Training in our <u>Vishnu clinical lab & ECG</u>
vaiyapamalai. She has completed her training successfully.

Thanking you,

Lab assist,

(M. World

CLINICAL LAB # AVAPPAMENT

Authorized Signature

VISHNU LAB & ECG Rasipuram Main Road, Vaiyappamalai.

Cell; 80720 27080, 94430 27968





08.05.2023

CERTIFICATE

This is to certify that Miss. Pavithra. G (21UBT024), B Sc., Department of Biotechnology, Muthayammai College of Arts and Science, Rasipuram. Has undergone the internship in Diagnostics (ab from 25th May to 8th June 2023 in our Apollo Diagnostics.

Apollo Diagnostics
PCC Dharmapuri
PCC Dharmapuri
No 29 Nethal Dre Pass fond
Opp. South Indian Bank
Com. 74 180 36 130



விநாயகா மைக்ரோ கிளினிக்கல் லேப் 🙀

அத் நவீன உயர்தர இரத்தப் பரிசோதனை நிலையம்

VINAYAGA MICRO CLINICAL LAE

Attur Main Road, MANGALAPURAM, Rasipuram Tk, Namakkal Dt.

Mobile: 99435 57392, 95979 79712 Computerised Lab

Lab Reg No : PMLEWA/ LAB / TN / 0257 / NMK / 02

NABL – M(EL)T – Reg No : 00453

Date: 11.06.2023

Student Internship Training Certificate

This is to certify that Miss. G.RADHA Pursuing 2 ND B. Sc

Biotechnology At MUTHAYAMMAL UNINVERSITY, has successfully completed internship training In VINAYAGA MICRO CLINICAL LAB from 25.05.2023 to 11.06.2023 She had training in Laboratory Department. She was trained by senior lab technologist.

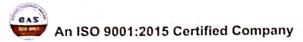
During the period of his internship programme with us she found punctual,

Hardworking and inquisitive.

We wish her every success in life.

Mr. A. THILAGARAD.M.L.T.,
A. THILAGAR, D. M.L.T.
VINAYAGA MICRO CLINICAL LAB
Computerised Clinical Laboratory
Attur Main Road,
Mangapuram (Po), Rasipuram (Tk),
Namakkal(Dt), Pin - 636 202.

Mr.K.VIJAY RAMASAMY.MSc.,MPhil
WINAYAGA MICRO CLINICAL LAB
Computerised Clinical Laboratory
Attur Main Road,
Mangapuram (Po), Rasipuram (Tk),
Namakkal (Dt), Pin - 636 202.





10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. RAJESHWARI.S* (21UBT027) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with Acme ProGen Biotech (India) Private Limited, for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. RAJESHWARI.S all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited







10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. RASIKA.D* (21UBT028) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with **Acme ProGen Biotech (India) Private Limited,** for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. RASIKA.D all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited

Dilector (



16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Raveena Dharani . S B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

Open Geetha Coordinator

Discover & Develop

Er. V. Ganesh Research Specialist

Dr. V.K. Evanjelene Director & Research Scientist





DIAGNOSIS | RESEARCH | EDUCATION

196/1, Saraswathi Duraiswamy Building, Kamarajanar Road, Attur - 636 102, Salem, Tamilnadu, India.

Certificate of Internship

This is to certify that Dr/Mr/Mrs/Miss

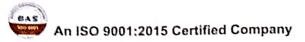
V. SANJAVI, DEPARTMENT OF BIOTECHNOLOGY,

MUTHAYAMMAL ARTSE SCIENCE COLLEGE ias Successfully completed an Internship

Training Programme at Microtech Laboratories, Attur, Salem from 29.05.2023 to 13:06:2023 in the filed of Microbiology, Biochemistry, Hematology, Clinical Pathology and Molecular Biology.

During the internship, he/she exhibited exceptional dedication, professionalism and a strong desire to learn.

A. Senthilkumar Managing Director Dr. Senbagam Duraisamy Executive Director





10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. SOUMIYA.S* (21UBT032) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with Acme ProGen Biotech (India) Private Limited, for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. SOUMIYA.S all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited







To Whom so ever it May Concern

To

Muthayammal College of Arts & Science, Affiliated to Periyar University, Rasipuram - 637408 Namakkal Dist. Tamil Nadu.

Sir,

Sub:- Kurinji Hospital- Ms.V.Sowndarya, II- Year Bsc(Bio Technology) Student-Internship Completed for 15 Days (26 May to 10 June 2023)- Reg.

Ms.V.Sowndarya (Reg. No.21UBT033), II- Year BSC student of the Muthayammal College of Arts & Science, Salem has Completed 15 working days training in the department of Diagnostic Lab, in kurinji Super Specialities hospital pvt Limited, Salem from 20/05/2023 to 10/06/2023.

Thank You,

Mr.Srinivasan Raju Human Resource

To

Ms.V.Sowndarya.

Kurinji Hospital, 4/118/1, Dr. T.J. Salai, Five Roads, Salem - 636 016. © 0427-2433300 - 02 Fax: 0427-2447743, e-mail: kurinjihospital@yahoo.co.in

16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Sri Harini . B B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023

Coordinator

Research Specialist

Dr. V.K. Evanjelene

Director & Research Scientist

16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Subhashri . A B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

Coordinator

Research Specialist

Dr. V.K. Evanjelene

Director & Research Scientist





10.06.2023 Salem

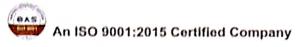
Internship certificate

This is to certify that, *Mr. SUGUMARAN.S* (21UBT036) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with **Acme ProGen Biotech (India) Private Limited**, for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During his internship, he was very sincere, diligent and dedicated towards his responsibility. He completed his tasks really good.

We wish Mr. SUGUMARAN.S all the best for all his future endeavors.

For Acme ProGen Biotech (India) Private Limited







10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. THIRISHA.R* (21UBT038) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with Acme ProGen Biotech (India) Private Limited, for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. THIRISHA.R all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited



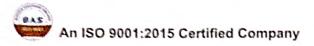
16, Anbu Nagar, Gorimedu, Salem - 8.

Certificate

This is to Certified that Ms. Vadivammal . A B.Sc., Department of Biotechnology, Muthayammal College of Arts & Science, Rasipuram, has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June 2023.

Courley Dr. M. Geetha Coordinator

Er. V. Ganesh Research Specialist Dr. V.K. Evanjelene Director & Research Scientist





10.06.2023 Salem

Internship certificate

This is to certify that, *Miss. VARSHA.B* (21UBT040) student of 2nd Year B.Sc. Biotechnology, MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE interned with Acme ProGen Biotech (India) Private Limited, for 15 Days, from 25th May 2023 to 10th June 2023 as a Laboratory Intern. During her internship, she was very sincere, diligent and dedicated towards her responsibility. She completed her tasks really good.

We wish Miss. VARSHA.B all the best for all her future endeavors.

For Acme ProGen Biotech (India) Private Limited





Internship Training Certificate

This is to certify that Mr /Ms. VINOTH. K	
Department of BIOTECHNOLOGY, MUTHAYAMMAL COLLEGE OF ARTS	4 SCIENCE has
learned and successfully completed by the Internship course of BIO-PHARMA	· ·
AND CHROMATOGRAPHIC TEKHNIQUES	conducted by
VJ BIOTECH , Coimbatore from 2 5.05. 2023 to 10.06.2023	

Course Organizer



Managing Director



16, Anbu Nagar, Gorimedu, Salem- 636 008. Tamilnadu, India.

- 98942 62364, 95005 50115
- alphaomegabiovision@gmail.com md@alphaomegaresearch.com
 - www.alphaomegaresearch.com

Date: 08/06/2023

Ref No: AORF/PW/066/2023

CERTIFICATE

This is to certify that Ms. Vigneswari. V (21UBT043), B.Sc., Department of Biotechnology, Muthayammal College of Arts and Science College, Rasipuram has undergone the Internship on "Drug Discovery Techniques" from 25th May to 8th June, 2023, in our research lab.

Managing Director

Dr. V.K. EVANJELENE,

ISC (BioTech) PGDBI MBA Ph.D. M.S. (PSSS) FSSB FSAB

Alpha Omega Research Foundation, 16, Anbu Nagar, Gorimedu, SALEM-8

INTERNSHIP REPORT

A Report submitted in partial fulfilment of the requirement for the Award of degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

AARIFA N

Reg No: 22MPBT1001

at VAXIGEN INTERNATIONAL RESEARCH CENTRE PRIVATE LIMITED COIMBATORE - 641041

Duration: 29.05.2023 to 14.06.2023



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

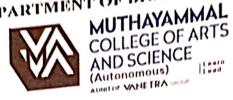
JUNE-2023

(An Autonomous Institution)

Affiliated to Periyar University, Salem Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu,

DEPARTMENT OF BIOTECHNOLOGY



This is to certify that the "INTERNSHIP REPORT" submitted by N AARIFA (Reg no: 22MPBT1001) is work done by her and submitted during 2022-2024 academic year in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE in BIOTECHNOLOGY at Vaxigen International Research Centre Private Limited Coimbatore - 641041.

Internship Coordinator

ARAN M Sc , M. Phil., Ph.D.

Department of Biotechnology

Mulhayammal College of Arts & Science

Submitted for the viva voice examination held on: 1934028023537408, Namakkal (D)

INTERNATION REPORT

INTERNSHIP REPORT

A Report submitted in partial fulfilment of the requirement for the Award of degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

ABIRAMI C

Reg No: 22MPBT1002

vaxigen international research centre private limited coimbatore – 641041

Duration: 29.05.2023 to 14.06.2023



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "INTERNSHIP REPORT" submitted by C ABIRAMI (Reg no: 22MPBT1002) is work done by her and submitted during 2022-2024 academic year in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE in BIOTECHNOLOGY at Vaxigen International Research Centre Private Limited Coimbatore - 641041.

Internship Coordinator

ARAN M.Sc.,M.Phil.,Ph.D.,

Department of Biotechnology

Submitted for the viva voice examination held on: 19. 19:1233 mai College of Arts & Science

External Examiner

Internal Examiner

A Report submitted in partial fulfilment of the requirement for the Award of degree of INTERNSHIP REPORT

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

DEVI V

Reg No: 22MPBT1003

VAXIGEN INTERNATIONAL RESEARCH CENTRE PRIVATE LIMITED COIMBATORE - 641041

Duration: 29.05.2023 to 14.06.2023



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "INTERNSHIP REPORT" submitted by DEVI V(Reg no: 22MPBT1003) is work done by her and submitted during 2022-2024 academic year in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE in BIOTECHNOLOGY at Vaxigen International Research Centre Private Limited Coimbatore – 641041.

Internship Coordinator

Head of the Department

Submitted for the viva voice examination held on: 19.10.2023

Internal Examiner

A report submitted in partial fulfilment of the requirement for the Award of degree of

MASTER OF SCIENCE

IN

BIOTECHNOLOGY

 $\mathbf{B}\mathbf{y}$

DIVYADHARSHINI.A

REGISTER NUMBER: 22MPBT1005

Λt

JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD PUBLIC UNIVERSITY IN HYDERABAD, TELANGANA.

F9VR+8H2, Ashok Nagar, Kukatpally Housing Board Colony, Kukatpally, Hyderabad, Telangana 500085

Duration:(15.06.2023 to 31.08.2023)



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B) Rasipuram - 637 408, Namakkal District, Tamil Nadu.

JUNE 2023

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.



CERTIFICATE

This is to certify that the "Internship report" submitted by DIVYADHARSHINI.A (22MPBT1005) is work done by her and submitted during 2022 –2024 academic year, in partial fulfilment of the requirements for the Award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD, TELANGANA.

Internship Coordinator (College)

Head of the Department

HEAD

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram - 637 408, Namakkal (Dt) Tamilnadu, India

Submitted for the viva- voce examination held on_____

Internal Examiner

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

BIOTECHNOLOGY

by

GAYATHRI M

Reg.No:22MPBT1006

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED BANGALORE-560 105

DURATION - (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, recognized by UGC under Section 2(f) & 12(B) Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by GAYATHRI M (22MPBT1006) is work done by her and submitted during 2022 –2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED, BANGALORE.

Internship Coordinator (College)

Head of the Department

St.P. SELVAMALEESWARAN M.Sc.,M.Phil.,Ph.D.,

HEAD

Department of Biotechnology

Muthayammal College of Arts & Science

Submitted for the viva- voce examination held on 19. to . 2023 Rasipuram 637 408, Namakkal (Dt)
Tamilnadu, India.

nternalExaminer

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

JANANI V M Reg. No.: 22MPBT1007

at

MICROTECH LABORATORIES

Building, 198/1, Saraswathi Doraisamy, Kamarajanar Rd, Attur, Tamil Nadu 636102

Duration (29.06.2023 to 14.07.2023)



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship Report" submitted by JANANI V M (Reg. No. :22MPBT1007) is work done by her and submitted during 2022 - 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY, at MICROTECE LARGE ANORIES, Attur.

2. 5. Newhusm

Submitted for the viva- voce examination held on 19 10 Mathayammal College of Arts & Science Rasipuram 637 408, Namakkal (Dt)

Tamilnadu, India.

nal Examiner

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

KARTHIKA M

Reg No: 22MPBT1008

at

MICROTECH LABORATORY

ATTUR - 636 102

DURATION - (29.05.2023 to 14.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram – 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B)

Rasipuram – 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by KARTHIKA M (22MPBT1008) is work done by her and submitted during 2022–2024 academic year, in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at MICROTECH LABORATORY, ATTUR.

Internship Coordinator (College)

Head of the Department

Department of Biotechnology
Muthayammal College of Arts & Science
Rasipuram - 637 408, Namakkal (D

Submitted for the Viva - Voce examination held on 19.10. 2023

A report submitted in partial fulfillment of the requirement for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

By

KEERTHANA K

Reg.No:22MPBT1009

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED

BANGALORE - 560 105

Duration: (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

JUNE 2023

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by KEERTHANA K (22MPBT1009) is work done by her and submitted during 2022 –2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED, BANGALORE.

Internship Coordinator (College)

Head of the Department J. Dr.P. SELVAMALEESWARAN M.Sc.,M.Phil.,Ph.D.

HEAD
Department of Biotechnology
Muthayammal College of Arts & Science
Basipuram 637 408, Namakkal (DI)
Tamilnadu, India.

Submitted for the viva voce examination held on 19,10,2028

Internal Examiner External Examiner

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE in BIOTECHNOLOGY

by

NARMADHA V Reg.No: 22MPBT1010

at MICROTECH LABORATORIES

Building ,198/1, Saraswathi Doraisamy, kamarajanagar Rd, Attur, Tamil Nadu 636102

> **Duration:** (29.05.2023 to 14.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution) Affiliated to Periyar University, Salem, Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem,
Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu,

DEPARTMENT OF BIOTEHNOLOGY



Certificate

This is to certify that the "Internship report" submitted by NARMADHA V (Reg.No.:22MPBT1010) is work done by her and submitted during 2022 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY, at MICROTECH LABORATORIES, ATTUR.

Internship Coordinator (College)

Head of the Department
Dr.P. SELVAMALEESWARAN M.Sc., M.Phil., Ph.D.,

Department of Biotechnology

Submitted for the viva- voce examination held on Muthayammal College of Arts & Science dasipularin 637 408, Namakkal (Dt)

Tamilnadu, India

Internal Examiner

Extérnal Examiner

Bellevit

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

IN

BIOTECHNOLOGY

by

NISHANTHINI V

Reg.No.: 22MPBT1011

at

MICROTECH LABORATORIES

ATTUR

Building,198/1, saraswathi Doraisamy, kamarajanar Rd, Attur, Tamil nadu

Duration (29.05.2023 to 14.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AN AUTONOMOUS INSTITUTION)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu

MUTHAYAMMAL COLLEGE OF ARTS & SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by NISHANTHINI V (Reg No: 22MPBT1011) is work done by her and submitted during 2022 - 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY, at MICROTECH LABORATORIES, ATTUR.

Internship Coordinator (College)

Department of Biotechnology Muthayammal College of Arts & Science

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

RASIKA R

Reg.No:22MPBT1012

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED BANGALORE-560 105

DURATION - (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, recognized by UGC under Section 2(f) & 12(B) Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B).

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by RASIKA R (22MPBT1012) is work done by her and submitted during 2022 –2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED, BANGALORE.

Internship Coordinator (College)

Br.P. Selead of the Department of the

Submitted for the viva- voce examination held on 19.10. axis

HEAD

Department of Biotechnology

Muthayammal College of Arts & Science

Rasipuram 637 408. Namakkal (Dt)

Tamilnadu, India.

InternalExaminer

ExternalExaminer

June

A report submitted in partial fulfillment of the requirements for the Award of degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

By

SATHYA P

Reg.No:22MPBT1013

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED

BANGALORE - 560 105

Duration: (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

JUNE 2023

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Perivar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.



CERTIFICATE

This is to certify that the "Internship report" submitted by SATHYAP (22MPBT1013) is work done by her and submitted during 2022 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED in BANGALORE.

Internship Coordinator (College)

Head of the Department

December of Scientification
Muthayammal College of Aris & Science
Rasipuram - 637-406, Namekkal (Dr.)
Tamihadu, India

Submitted for the viva-voce examination held on 19-10-2023

Internal Examiner

A report submitted in partial fulfillment of the requirements for the Award of degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

By

SINDHU G

Reg.No:22MPBT1014

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED

BANGALORE - 560 105

Duration: (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

JUNE 2023

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.



CERTIFICATE

This is to certify that the "Internship report" submitted by SINDHU G (22MPBT1014) is work done by her and submitted during 2022 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED in BANGALORE.

Internship Coordinator (College)

Head of the Department

Department of Biotechnology
Muthayammal College of Arts & Science
Rasipuram - 637 408, Namakkal (Dt),
Tamilnadu, India.

Submitted for the viva-voce examination held on 19-10-2023

Internal Examiner

A report submitted in partial fulfillment of the requirement for the Award of Degree of

BIOTECHNOLOGY

By

SNEHA M

Reg.No:22MPBT1015

ALS TESTING SERVICES INDIA PRIVATE LIMITED

BANGALORE - 560 105

Duration: (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

JUNE 2023

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by SNEHA M (22MPBT1015) is work done by her and submitted during 2022 -2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED, BANGALORE.

Internship Coordinator (College)

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram 637 408, Namakkal (Dt)

Tamilnadu, India.

ubmitted for the viva-voce examination held on 19-10-2023

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

SOWMIYAS

Reg.No:22MPBT1016

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED
BANGALORE-560 105

DURATION – (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, recognized by UGC under Section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B).

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by SOWMIYA S (22MPBT1016) is work done by her and submitted during 2022 -2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED, BANGALORE.

Internship Coordinator (College)

Department of Dicterhnology Submitted for the viva- voce examination held on 19 10 23 Resipuram 637 408, Namakkal (Dt) Muthayemmal College of Arts & Science

Tamilnadu, India.

InternalExaminer

A Report submitted in partial fulfilment of the requirement for the Award of degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

SWETHA A

Reg No: 22MPBT1017

vaxigen international research centre private limited coimbatore – 641041

Duration: 29.05.2023 to 14.06.2023



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "INTERNSHIP REPORT" submitted by SWETHA A (Reg no: 22MPBT1017) is work done by her and submitted during 2022-2024 academic year in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE in BIOTECHNOLOGY at Vaxigen International Research Centre Private Limited Coimbatore – 641041.

J. 3. MWWW.

J. S. Muhumy Internal Examiner Head of the Department Dr.P. SELVAMALEESWARAN M.Sc., M.Phil., Ph.D.,

HEAD

Department of Biotechnology

Submitted for the viva voice examination held on:

Huthayammal College of Arts & Science 637 408, Namakkal (Dt)

Tamilnadu, India

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

BIOTECHNOLOGY

 $\mathbf{B}\mathbf{y}$

ESAKIDINESH T

Reg.No:22MPBT1019

CENTRE FOR CLIMATE CHANGE STUDIES (SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY)

RAJIV GANDHI SALAI

CHENNAI-600119

DURATION TO - (29.05.2023 to 15.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

June-2023

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by ESAKIDINEH T (22MPBT1019) is work done by him and submitted during 2022 - 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Centre for climate Studies, Sathyabama Institute of Science and Technology, Chennai.

Internship Coordinator (Coffege)

Dr.P. The Market Transmission of Phil Phil

HEAD
Department of Biotechnology
Muthayammal College of Arts & Science

Submitted for the viva-voce examination held on 19-10-2023 Rasipuram 637 408, Namakkal (Dt)

Tamilnadu, India.

D.S. Mahmun

emal Examiner

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE In BIOTECHNOLOGY by

GNANAPRAKASH.S Reg.No.: 22MPBT1020

at Vaxigen International Research Center (P) Limited Coimbatore, Tamilnadu, India

Duration: 29.05.2023 to 14.06.2023



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) (An AutonomousInstitution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(June - 2023)

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) (An AutonomousInstitution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by GNANAPRAKASH.S (Regd.No.:22MPBT1020) is work done by him and submitted during 2022 - 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Vaxigen International Research Center, Coimbatore

Internship Coordinator (College)

p. . L. Lulium Internal Examiner

Submitted for the Viva voce examination held on 19-10 -2023

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram - 637 408, Namakkal (Dt)

Tamilnadu, India.

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE In BIOTECHNOLOGY

by

GOWTHAM.R.A Reg.No.: 22MPBT1021

at

Vaxigen International Research Center (P) Limited Coimbatore, Tamilnadu, India

> **Duration:** 29.05 2023 to 14 06 2023



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) (An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(June - 2023)

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) (An AutonomousInstitution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

submitted by report" "Internship the that certify GOWTHAM.R.A(Regd.No.:22MPBT1021) is work done by him and submitted during 2022 to 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Vaxigen International Research Center, Coimbatore

Internship Coordinator (College)

Head of the Departm Muthayammal College of Arts & Science Rasipuram - 637 408, Namakkal (Dt).

Submitted for the Viva voce examination held on 19.10.20 23

Examiner

Tamilnadu, India

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

In

BIOTECHNOLOGY

by

HAROON RASITH.S

Reg.No.: 22MPBT1022

at

Vaxigen International Research Center (P) Limited Coimbatore, Tamilnadu, India

Duration:

29.05.2023 to 14.06.2023



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) (An AutonomousInstitution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(June - 2023)

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) (An AutonomousInstitution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by HAROONRASITH.S (Regd.No.:22MPBT1022) is work done by him and submitted during 2022 - 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Vaxigen International Research Center, Coimbatore

Internal Examiner

Submitted for the Viva voce examination held on 19.10.2025 Department of Biotechnology

Julhayammal College of Arts & Science Hasipuram 637 408, Namakkal (Dt) Tamilnadu, India.

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

By

NATARAJAN M

Reg.No:22MPBT1023

a t

CENTRE FOR CLIMATE CHANGE STUDIES
(SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY)

RAJIV GANDHI SALAI

CHENNAI-600119

DURATION TO - (29.05.2023 to 15.06.2023)



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

June-2023

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by NATARAJAN M (22MPBT1023) is work done by him and submitted during 2022 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Centre for climate Studies, Sathyabama Institute of Science and Technology, Chennai.

Internstity Coordinator (College)

Head of the Department

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram - 637 408, Namakkal (Dt)

Tamilnadu, India.

Submitted for the viva-voce examination held on 19-10-2023

Internal Examiner

External Examiner

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

NIVASHKUMARK

Reg. No: 22MPBT1024

at

Vaxigen International Research Center Private Limited Vadavalli, Coimbatore – 641041

Duration - (29.05.2023 to 14.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu.

June-2023

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

NIVASHKUMAR.K

Reg. No: 22MPBT1024

at

Vaxigen International Research Center Private Limited Vadavalli, Coimbatore – 641041

Duration - (29.05.2023 to 14.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

June-2023

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by NIVASHKUMAR.K (Reg. No:22MPBT1024) is work done by his and submitted during 2022 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Vaxigen International Research Center Private Limited, Vadavalli, Coimbatore – 641041.

Internation Coordinator (College)

Head of the Department Dr.P. SELVAMALEESWARAN M.Sc., M.Phil., Ph.D.

Department of Biotechnology

Submitted for the viva- voce examination held on 19.10 and 637 408, Namakkal (Dt)

Tamilnadu, India.

Internal Examiner

External Examiner

A report submitted in partial fulfillment of the requirements for the Award of degree of

MASTER OF SCIENCE

BIOTECHNOLOGY

By

A. RANJITHRAJ

Reg.No:22MPBT1025

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED

BANGALORE - 560 105

Duration: (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by A. RANJITHRAJ 22MPBT1025) is work done by her and submitted during 2022 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED in BANGALORE.

Internship Coordinator Chiefandrasekaran Assistant Professor,

Department of Biotechnology (R&D)
Muthayammal College of Arts & Science,
Rasipuram - 637 408.

Head of the Departr

Department of Biotechnology Muthayammal College of Aria & Science Rasipuram - 637 438 Num.

Taminadu, india

Submitted for the viva-voce examination held on 19.10.2023

Internal Examiner

Pyternal Examiner

A report submitted in partial fulfillment of the requirements for the Award of degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

 $\mathbf{B}\mathbf{y}$

SANJAI K

Reg.No:22MPBT1026

at

ALS TESTING SERVICES INDIA PRIVATE LIMITED

BANGALORE - 560 105

Duration: (01.06.2023 to 20.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

JUNE 2023

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.



CERTIFICATE

This is to certify that the "Internship report" submitted by SANJAI K (22MPBT1026) is work done by her and submitted during 2022 – 2024 academic year, in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at ALS TESTING SERVICES INDIA PRIVATE LIMITED in BANGALORE.

Dr. Raghu Chandrasekaran Internship Coordinatars Candlegoressor,

Department of Biotechnology (R&D) Muthayammai Cellege of Arts & Science. Rasipuram - 637 408. Head of the Department
Department of Biotechnology
Muthayammal College of Arts & Science
Rasipuram - 637 408, Namakkal (Dt)
Tamilnadu, India.

Submitted for the viva-voce examination held on 19.10.2023

Internal Examiner

External Examiner

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

By

SURESH.P

Reg.No:22MPBT1027

at

CENTRE FOR CLIMATE CHANGE STUDIES
(SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY)

RAJIV GANDHI SALAI

CHENNAI-600119

DURATION TO - (29.05.2023 to 15.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu

June-2023

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by SURESH P (22MPBT1027) is work done by him and submitted during 2022 - 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Centre for climate Studies, Sathyabama Institute of Science and Technology, Chennai.

Assistant Professor, Internship Coordinator (College) Department of Biotechnology (R&D) Muthayammal College of Arts & Science.

Rasiperam - 637 408.

Department of Exclashnology Muthayommai Cokege of Aris & Science Rasipuran - 637 406 (tamaskal (0t)

Taminadu India

Submitted for the viva- voce examination held on 19-10-2023

Internal Examiner

A Report submitted in partial fulfilment of the requirement for the Award of degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

SURIYA P

Reg No: 22MPBT1028

VANIGEN INTERNATIONAL RESEARCH CENTRE PRIVATE LIMITED COIMBATORE - 641041

Duration: 29.05.2023 to 14.06.2023



DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

JUNE-2023

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(An Autonomous Institution)

Affiliated to Periyar University, Salem

Accredited by NAAC with 'A' grade, Recognized by UGC under section 2(f) & 12(B)

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "INTERNSHIP REPORT" submitted by SURIYA P (Reg no: 22MPBT1028) is work done by her and submitted during 2022-2024 academic year in partial fulfilment of the requirements for the award of the Degree of MASTER OF SCIENCE in BIOTECHNOLOGY at Vaxigen International Research Centre Private Limited Coimbatore – 641041.

Head of the Department

Department of Biotechnology
Mulhayammal College of Arts & Science
Rasipuram - 637 408, Namakkal (Dt)
Familnadu, India

Submitted for the viva voice examination held on: 19.10. 2027

Internal Examiner

External Examiner

Standardization of tank-cultivation technology for commercially important edible green seaweed, *Ulva*

INTERNSHIP REPORT

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE in BIOTECHNOLOGY by

Mr. K. M. VASANTHARAJAN

Reg. No.: 22PBT1029

Under the guidance of

Dr. S. DINESH KUMAR

Scientist
Marine Algal Research Station
Applied Phycology & Biotechnology Division
CSIR-Central Salt & Marine Chemical Research Institute
Mandapam camp-623 519
Tamil Nadu, India

(Duration: June 1, 2023 to July 31, 2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS) (An Autonomous Institution)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Internship report entitled "Standardization of tank-cultivation technology for commercially important edible green seaweed, Ulva" submitted by Mr. K. M. VASANTHARAJAN (Regd.No.:22MPBT1029) is done by him under the guidance of Dr. S. DINESH KUMAR, Scientist, Marine Algal Research Station, Applied Phycology & Biotechnology Division, CSIR-Central Salt & Marine Chemical Research Institute, Mandapam camp-623 519 and submitted during 2022 - 2024 academic year, for partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY at CSIR-CSMCRI (Central Science and Marine Chemicals Research Institution) MARS, MANDAPAM.

p. S. Walmouse

Head of the Department

Dr.P. SELVAMALEESWARAN M.Sc. M.Phil. Ph.D.

HEAD

Department of Biotechnology Submitted for the viva- voce examination held on 19-10-2023 thayammal College of Arts & Science Rasipuram 637 408, Namakkal (Dt) Tamilnadu, India.

p.s. Chilung

mal Examiner

A report submitted in partial fulfillment of the requirements for the Award of Degree of

MASTER OF SCIENCE

in

BIOTECHNOLOGY

by

VENKATESH.J

Reg. No: 22MPBT1030

at

Vaxigen International Research Center Private Limited Vadavalli, Coimbatore – 641041

Duration - (29.05.2023 to 14.06.2023)



DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

June-2023

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the "Internship report" submitted by VENKATESH.J

(Reg. No:22MPBT1030) is work done by his and submitted during 2022 – 2024 academic year, in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE in BIOTECHNOLOGY, at Vaxigen International Research Center Private Limited, Vadavalli, Coimbatore – 641041.

Internship Coordinator (College)

Head of the Department

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram - 637 408, Namakkal (Dt)

Submitted for the viva- voce examination held on 10,10,2023

ternal Examiner

External Examiner

AVAILABLE DICLOFENAC POTASSIUM AND DEXAMETHASONE.

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

AARIFA N

(Reg. No:22MPBT1001)



Under the Guidance of

Mrs. K. Chitra, M.Sc., M.Phil., (Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem, Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "EVALUATION OF ANTI-INFLAMMATORY ACTIVITY OF COMMERCIALLY AVAILABLE DICLOFENAC POTASSIUM AND DEXAMETHASONE" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by AARIFA N (Reg. No: 22MBPT1001) during the period of this study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision / guidance and this project report has not formed the basis for the award of Degree / Diploma / Associateship / fellowship or similar title to any candidate of any University.

Project Guide

Dr.P. SELVAMALEESWARAN M.Sc., M.Phil., Ph.D.,

Department of Biolechnology
Muthay Hende Otthe Department cience
Flasipuram 637 408, Namakkal (Dt)

Tamilnadu, India.

Submitted for the project Viva-Voce examination held on 15/05/2024

Examiners:

Dr. R KANTHA, M.Sc., M.Phil., Ph.D

of Biotechnology, yar University, 111, Tamii Nadu, India, 2. St Jist 24

EVALUATION OF ANTI-BACTERIAL ACTIVITY OF COMMERCIALLY AVAILABLE AZITHROMYCIN AND CIPROFLOXACIN

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

ABIRAMI C

(Reg. No:22MPBT1002)



Under the Guidance of

Mrs. K.CHITRA, M.Sc., M.Phil., (Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled" EVALUATION OF ANTI-BACTERIAL ACTIVITY OF COMMERCIALLY AVAILABLE AZITHROMYCIN AND CIPROFLOXACIN" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by ABIRAMI C (Reg. No: 22MPBT1002) during the period of this study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision / guidance and this project report has not formed the basis for the award of Degree / Diploma / Associatesship / fellowship or similar title to any candidate of any University.

Project Guide

P. ST. Ph.D.

Head of the Department logy

Muthaya: Lal Collage of Arts & Science Rasipuram 637 403, Namakkal (Dt)

Tamilnadu, India.

2. Se . U 1515/24

Submitted for the project Viva-Voce examination held on 1505 2024

Examiners:

Dr. H. WINGA, M.Sc., M.Phil., Ph.D.

Professor & Head, Dept. of Biotechnology, Periyar University,

Salem - 636 011, Tamil Nadu, India.

SYNTHESIS OF ZINC NANOPARTICLES FROM Curculigo orchioides AND ITS ANTIOXIDANT, ANTIBACTERIAL, AND ANTI-INFLAMMATORY ACTIVITY

Project report submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

DEVI V

Reg. No.: 22MPBT1003



Under the guidance of Mrs. K. CHITRA, M.Sc., M.Phil.,

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

is to certify that the Project Report entitled "SYNTHESIS OF ZINC NANOPARTICLES FROM CURCULIGO ORCHIOIDES AND ITS ANTIOXIDANT, ANTIBACTERIAL AND ANTI-INFLAMMATORY ACTIVITY" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by DEVI (Reg. No: 22MPBT1003) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Project Guide

Department of Biotechnology Muthayammal College of Arts & Scient asipuram 637 408, Namakkal i

2. & 15/5/24

Tamilnadu, India.

Submitted for the project viva voce examination held on 15/05/2024

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D.,

Professor & Head, Dept. of Blotechnology, Periyar University, elem - 636 011, Tamii Nadu, India.

Isolation and purification of Curcumin from curcuma longa

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By
DIVYADHARSHINI A
(Reg. No.: 22MPBT1005)



Under the Guidance of
Dr. D. KAVITHA, M.Sc., M.Phil., Ph.D.,
(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,
Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram-637408. Namakkal District, Tamilnadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project report entitled "ISOLATION AND PURIFICATION OF CURCUMIN FROM CURCUMA LONGA" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by DIVYADHARSHINI A (Reg. No.: 22MPBT1005) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, (Autonomous) Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Project Guide

Head of the Department
HEAD OF THE DEPARTMENT
DEPARTMENT OF BIOTECHNOLOGY
MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE
(AUTONOMOUS)

RASIPURAM (Tk), NAMAKKAL (DT)-637 408.

2. D. flavills/2

Examiners:

Dr. R. KAVI HA M.S., M.Phil., Ph.D., Frotescor & Head,

Salem - 636 011, Tamil Nadu, India.

DEVELOPMENT OF BIOPOLYMER SHEET USING Borassus flabellifer FOR FRUITS AND VEGETABLES WRAPPERS

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

 $\mathbf{B}\mathbf{y}$

GAYATHRI M

(Reg. No.: 22MPBT1006)



Under the Guidance of
Dr. D. KAVITHA, M.Sc., M.Phil., Ph.D.,
(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408. Namakkal District, Tamilnadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project report entitled "DEVELOPMENT OF BIOPOLYMER SHEET USING BORASSUS FLABELLIFER FOR FRUITS AND VEGETABLES WRAPPERS" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by GAYATHRI M (Reg. No.: 22MPBT1006) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, (Autonomous) Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

E CONTRACTOR OF THE PARTY OF TH

b. 5. Muhmun C.M.Phil.Ph.D.

HEAD Department of Biotechnology Muthayammal College of Arts & Science Rasipuram 637 408, Namakkal (Dt)

15. Os. 20 20la. Submitted for the project viva voce examination held on

Examiners:

Dr. R. KAVITYA, M.Sc., M.Phil., Ph.D.,

Profession & Head, Dept. of Biotechnology, yiyar University,

Salem - 436 011, Tamil Nadu, India.

2. Q. Saville 15/5/24

UNVEILING VANCOMYCIN RESISTANCE: GENOTYPIC CHARACTERIZATION OF vanA GENE IN ENTEROCOCCUS ISOLATES FROM POULTRY

Project report submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

JANANI V M

(Reg. No.: 22MPBT1007)



Under the Guidance of

Dr. D. KAVITHA, M.Sc., M.Phil., Ph.D.,
(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

MAY-2024

Affiliated to Periyar University, Salem,
Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "UNVEILING VANCOMYCIN RESISTANCE: GENOTYPIC CHARACTERIZATION OF vanA GENE IN ENTEROCOCCUS ISOLATES FROM POULTRY", submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by JANANI V M (Reg. No. :22MPBT1007), during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision / guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

L). Karill. Project Guide

Head of the Department
Dr.P. SELVAMALEESWARAN M.Sc., M.Phil., Ph.D.,

HEAD
Department of Biotechnology
Muthayammal College of Arts & Science
Casipuram 637 408, Namakkal (Di)
Tamilnadu, India.

2. D. Hamilton

Submitted for the project viva-voce examination held on 15-05-2024

Examiners:

1 1 1

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head,

Dept. of Biot-chnology, Periyar University,

dem - 636 011, Tamil Nadu, India.

EVALUATION OF PHYTOCHEMICAL, ANTIMICROBIAL ACTIVITY OF Cassia auricalate LEAF METHANOLIC EXTRACT

project report submitted to Periyar University, Salem in partial fulfillment of the requirements

for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By KARTHIKA M

(Reg. No.: 22MPBT1008)



Under the Guidance of
Dr. D. KAVITHA, M.Sc., M.Phil., Ph.D.,
(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,
Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram-637408. Namakkal District, Tamilnadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project report entitled "EVALUATION OF PHYTOCHEMICAL, ANTIMICROBIAL ACTIVITY OF CASSIA AURICALATE LEAF METHANOLIC EXTRACT" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by KARTHIKA M (Reg. No.: 22MPBT1008) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, (Autonomous) Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Project Guide

Head of the Department
HEAD OF THE DEPARTMENT
DEPARTMENT OF BIOTECHNOLOGY
MITHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS,

2. D. Karth

Submitted for the project viva voce examination held on 15.05, 2024

Examiners:

Dr.

Phil., Ph.D.,

Le doucchnology,

Ferryar University,

Salem - 636 011, Tainil Nadu, India.

Combination of Sweitenia macrophylla and Abroma augusta in treating Diabetes mellitus in Zebra fish

Project report submitted to Periyar University, Salem in partial fulfilment of the requirements for the awards of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

KEERTHANA K

(Reg. No.: 22MPBT1009)



Under the guidance of Dr. K. REVATHI, M.Sc., Ph.D.,

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem.

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "COMBINATION OF SWEITENIA MACROPHYLLA AND ABROMA AUGUSTA IN TREATING DIABETES MELLITUS IN ZEBRA FISH" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by KEERTHANA K (Reg. No: 22MPBT1009) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Project Guide

Dr. K. REVATHI
Assistant Professor
Department of Biotechnology
Muthayammal College of Arts and Science
Resiguram, Namakkal, Tamilnadu.

Head of the Department Dr.P. SELVAMALEESWARAN M.Sc.,M.Phil.,Ph.D.,

Department of Biotechnology Muthayammal College of Arts & Science Pasipuram 637 408, Namakkal (D Tamilnadu, India.

Submitted for the project viva voce examination held on 15.05.2024

Examiners:

١.

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head, Dept. of Biotechnology, Periyar University,

636 011, Tamil Nadu, India.

2.

R Report

DETECTION OF CIPROFLOXACIN RESISTANCE GENE (qnrB) AMONG ESCHERICHIA COLI ISOLATES FROM DEAD COMMERICAL CHICKENS

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

NARMADHA.V

(Reg. No:22MPBT1010)



Under the Guidance of Dr. K. REVATHI, M.Sc., Ph.D (Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Perivar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuran-637408.Namakkal District, Tamilradu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "DETECTION OF CIPROFLOXACIN RESISTANCE GENE (qnrB) AMONG ESCHERICHIA COLI ISOLATES FROM DEAD COMMERICAL CHICKENS" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by NARMADHA.V (Reg. No: 22MPBT1010) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayanımal College of Arts and Science, Rasipuram (Autonomous) under my supervision / guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Project Chick REVATHI

Assistant Professor Department of Biotechnology Muthayammal College of Arts and Science Rasipuram, Namakkal, Tamilnadu.

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram 637 408, Namakkal (Dt)

Submitted for the project viva-voce examination held on 15/06 18091. India.

Examiners:

Dept. of Blotechnology, Periyar University.

Salem - 636 011, Tamil Nadu, India.

SCREENING AND APPLICATION OF PHYCOCYANIN PIGMENT FROM SPIRULINA USING A LOW COST – PRODUCTION METHOD

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

NISHANTHINI V

(Reg. No: 22MPBT1011)



Under the Guidance of

Dr. K. REVATHI, M.Sc., Ph.D., (Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,
Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "SCREENING AND APPLICATION OF PHYCOCYANIN PIGMENT FROM SPIRULINA USING A LOW-COST PRODUCTION METHOD" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by NISHANTHINI V (Reg. No: 22MBPT1011) during the period of this study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision / guidance and this project report has not formed the basis for the award of Degree / Diploma / Associatesship / fellowship or similar title to any candidate of any University.

Project Guide

Dr. K. REVATHI
Assistant Professor

Department of Biotechnology

Muthayammal College of Arts & Science

M. Submitted for the project Viva-Voce examination held on 45/05/3694 Namakkal (L.,)

Rasipuram, Namakkal, Tamilnadu.

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head,

Dept. of Biotechnology, Periyar University,

Salem - 636 011, Tamil Nadu, India.

NANOENCAPSULATION OF ROSUVASTATIN DRUG AND IT'S DEGRADATION STUDIES

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

RASIKA R

(Reg. No: 22MPBT1012)



Under the Guidance of

Dr. K. REVATHI, M.Sc., Ph.D.,
(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408. Namakkal District, Tamilnadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project report entitled "NANOENCAPSULATION OF ROSUVASTATIN DRUG AND IT'S DEGRADATION STUDIES" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by RASIKA.R (Reg. No: 22MPBT1012) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, (Autonomous) Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Dr. K. REVATHI **Assistant Professor**

Department of Biotechnology

Mushayannal Collegner Arts jand Stica ococe examination held on Rasipuram, Namakkal, Tamilnadu.

Dr.P. SELVAMALEESWARAN M.Sc., M.Ph."

HEAD

Department of Biotechnology Muthayammal College of Arts & Sc

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head, Dept. of Biotechnology,

Perlyar University, Salem - 636 011, Tamil Nadu, India.

EVELOPMENT OF EDIBLE POLYMER WAX USING COCOS NUCIFERA (L.) SPROUT FOR THE OUTER PROTECTION OF VEGETABLES AND FRUITS

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By

SATHYA P

(Reg. No.: 22MPBT1013)



Under the Guidance of Mrs. R. NALINI, M.Sc., M.Phil., NET., SET.

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

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Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project report entitled "DEVELOPMENT OF EDIBLE POLYMER WAX USING COCOS NUCIFERA (L.) SPROUT FOR THE OUTER PROTECTION OF VEGETABLES AND FRUITS" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by SATHYA P (Reg. No.: 22MPBT1013) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associateship / Fellowship or similar title to any candidate of any University.

Project Guide

Head of the Department
Dr.P. SELVAMALEESWARAN M.Sc., M.Phil., Ph.D.,

HEAD
Department of Biotechnology
Muthayammal College of Arts & School
Rasipuram 637 408, Namakkan (1991)

Submitted for the project viva voce examination held on 15-05-2021,

Examiners:

2. P. NEW 15/87

DEVELOPMENT OF MOISTURIZER CREAM FROM BEESWAX

(Cera alba)

Project report submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

SINDHU G

(Reg. No.: 22MPBT1014)



Under the Guidance of Mrs. R. NALINI, M.Sc., M.Phil., NET., SET.

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem.

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),
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Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "DEVELOPMENT OF MOISTURIZER CREAM FROM BEESWAX (CERA ALBA)" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by SINDHU G (Reg. No: 22MPBT1014) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associateship / Fellowship or similar title to any candidate of any University.

Project Guide

Dr.P. SELVAMALEESWARAN M.Sc., M. Phil., Ph.D.,

HEAD

Department of Biotechnology Muthayammal College of Arts & Scir Rasipuram 637 408, Namakke Tamilnadu, India.

Submitted for the project viva voce examination held on _____15.05.2024

Examiners:

1. Jan 15/5/20

2. 8. 15.5.2.4

NUTRITIONAL PROFILING OF FERMENTED SOYABEAN FLOUR WITH Lactobacillus fermentum AND ITS BIOLOGICAL EFFECTS

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

SNEHA M

(Reg. No.: 22MPBT1015)



Under the Guidance of

Mrs. R. NALINI, M.Sc., M.Phil., NET., SET.

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem.

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "NUTRITIONAL PROFILING OF FERMENTED SOYABEAN FLOUR WITH LACTOBACILLUS FERMENTUM AND ITS BIOLOGICAL EFFECTS" Submitted to Periya University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by SNEHA M (Reg. No: 22MPBT1015) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associateship / Fellowship or similar title to any candidate of any University.

Project Guide

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram 637 408, Namakkal (D.

Tamilnadu, India.

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head, Dept. of Biotechnology, Periyar University, Salem - 636 011, Tamil Nadu, India.

EXPLORING THE PREBIOTIC POTENTIAL OF DRAGON FRUIT PEEL POWDER ON PROBIOTIC BACTERIA ISOLATED FROM Sardinella longiceps FISH INTESTINE

Project report submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

SOWMIYAS

(Reg. No.: 22MPBT1016)



Under the guidance of

Mrs. R. NALINI, M.Sc., M.Phil., NET., SET.

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem.

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "EXPLORING THE PREBIOTIC POTENTIAL OF DRAGON FRUIT PEEL POWDER ON PROBIOTIC BACTERIA ISOLATED FROM Sardinella longiceps FISH INTESTINE" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by SOWMIYA S (Reg. No: 22MPBT1016) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associateship / Fellowship or similar title to any candidate of any University.

Project Guide

Head of the Department

DEPARTMENT

DEPARTMENT

DEPARTMENT

OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS)

PASIPURAM (TK), NAMAKKAL (DT)-637 408

2. T. W. r , 24

Submitted for the project viva voce examination held on 15.05.2024

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head,

Dept. of Biotechnology, Periyar University,

Salem - 636 611, Tamil Nadu, India.

SYNTHESIS OF ALUMINIUM NANAOPARTICLE, ANTIBACTERIAL, ANTIONIDANT, ANTIHYPERSENSITIVITY ACTIVITY OF LEAF EXTRACT FROM Asparagus racemosus

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

SWETHA A

(Reg. No: 22MPBT1017)



Under the guidance of

Dr. P. Selvamaleeswaran, M.Sc., M.Phil., Ph.D.,

(Assistant Professor & Head)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem.

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project report entitled "SYNTHESIS OF ALUMINIUM NANAOPARTICLE, ANTIBACTERIAL, ANTIOXIDANT, ANTIHYPERSENSITIVITY ACTIVITY OF LEAF EXTRACT FROM Asparagus racemosus" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by SWETHA A (Reg. No: 22MBPT1017) during the period of her study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Project Guide

Head of the Department Dr.P. SELVAMALEESWARAN M.Sc.,M.Phil.,Ph.D.,

Department of Biotechnology

Muthayammal College of Arts & Science
asipuram 637 408, Namakkal (Dt)

Tamilnadu, India.

2. p. 5 Mahrung

Submitted for the project viva voce examination held on 15.05. 2024

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D.,

Professor & Head, Dept. of Biotechnology, Periyar University,

Salem - 636 011, Tamil Nadu, India.

MICROBIAL ENRICHED BANANA SAP PRODUCT STABILITY, EFFICACY, AND POTENTIAL APPLICATIONS

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

DINESH .S

(Reg. No: 22PBT1018)



Under the Guidance of

Dr. P. SELVAMALEESWARAN, M.Sc., M.Phil., Ph.D.,

(Assistant Professor & Head)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Asserted by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Resignation-637408 Namekkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "Microbial Enriched Banana Sap Product Stability, Efficacy, And Potential Applications" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by DINESH .S (Reg. No: 22MPBT1018) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, (Autonomous) Rasipuram under my supervision /guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

roject Guide

b. 5 Muhrus

DI.P. SELVAMALEESWÄRAN M.SC.M.PHL.Ph.D.

HEAD

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram 637 408 Namakkal (Dt)

Submitted for the project viva voce examination held on 15.05. 2014

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DEPARTMENT OF BIOTECHNOLOGY

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2. p.5. Malum

Examiners

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head, Dept. of Biotechnology, Pertyar University,

Salem - 636 011, Tamil Nadu, India.

BIODEGRADATION OF SYNTHETIC PLASTICS BY BACTERIA AND FUNGI

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By ESAKIDINESH T

Reg. No: 22MPBT1019



Under the Guidance of
Dr. P. SELVAMALEESWARAN, M.Sc., M.Phil., Ph. D.,
(Assistant Professor & Head)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem, Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "Biodegradation of Synthetic Plastics by Bacteria and Fungi" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by ESAKIDINESH T (Reg. No: 22MPBT1019) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similartitle to any candidate of any University.

Dr.P. SELVAMALEESWÄRAN M.Sc.,M.Phil.,Ph.D.,

HEAD

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram 637 408, Namakkal (Dt)

Tamilnadu, India.

Head of the Department HEAD OF THE DEPARTMENT DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS) RASIPURAM (Tk). NAMAKKAL (DT)-637 408.

Submitted for the project viva voce examination held on 15-05-2024

Examiners:

Dr. R. KAWITHA, M.Sc., M.Phil., Ph.D.,

Professor & Head, Dept. of Biotechnology.

Periyar University, Salem - 636 011, Tamil Nadu, India. 2. p. 5. Newhorms

PRODUCTION AND OPTIMIZATION OF EXOPOLYSACCHARIDE PRODUCING -BACTERIA AND ITS PHARMACEUTICAL APPLICATIONS

Project report submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

hv

GNANAPRAKASILS

Reg. No: 22MPBT1020



Under the guidance of

Dr. P. SELVAMALEESWARAN, M.Sc., M.Phil., Ph.D.,

(Assistant Professor & Head)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled " Production and optimization of exopolysaccharide producing -bacteria and its pharmaceutical applications " Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by GNANAPRAKASH S (Reg. No: 22MPBT1020) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

6.5. Muhume Project Guide

Dr.P. SELVAMALEESWARAN M.Sc. M.Phil. Ph.D.

HEAD

Department of Biolechnology Muthayammal College of Arts & Science Rasipuram 637 403, Namakkal (Dt)

RASIPUR: M (TK). NAMAKKAL (DT) 137 408. Submitted for the project viva voce examination held on 15.5.2014

Examiners:

Dept of Blo stinology,

Periyar University. Salem - 636 011, Tamil Nadu, India. 2. p. 3. Mulmmy

THE DEPARTMENT

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS)

SCREENING AND IDENTIFICATION IF BIOACTIVE COMPOUNDS FROM Eclipta prostrata ETHANOLIC EXTRACT

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

GOWTHAM R A (Reg. No: 22MPBT1021)



Under the Guidance of

Dr. D. RAJASEKARAN, M.Sc., M.Phil., Ph.D., (Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem. Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled entitled "SCREENING AND IDENTIFICATION OF BIOACTIVE COMPOUNDS FROM Eclipta prostrata ETHANOLIC EXTRACT" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by GOWTHAM R A (Reg. No: 22MBPT1021) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision / guidance and this project report has not formed the basis for the award of Degree / Diploma / Associatesship / fellowship or similar title to any candidate of any University.

ssistant Professor.

LLI SKIMENT OF BIOTECHNOLOGY Department of Biotechnology viva-Voce examination Ment College OF ARTS AND SCIENCE Muthayamilial College of Arts and Science, (AU TONC: MORE)

Rasipuram, Namakkal Dt-637408.

RASIPURAM (TK), NAMAKKAL (DT)-637 408.

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D., Professor & Head,

Dept. of Biotechnology, Periyar University,

Salem - 636 011, Tamil Nadu, India.

Dr. D. RAJASEKARAN, M.Sc., M.Phil., Ph.D.

Assistant Professor,

Department of Biotechnology, Muthayammal College of Arts and Science

Rasipuram, Namakkal Dt-637408.

PRODUCTION OF BIOPLASTIC FROM BANANA CELLULOSE AND ITS MICROBIAL DEGRADABILITY USING CELLULOSE-DEGRADING BACTERIA

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By

NIVASHKUMAR.K

Reg. No.: 22PBT1024



Under the Guidance of Dr.D.RAJASEKERAN, M.Sc., M.Phil., Ph.D.,

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408.Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "PRODUCTION OF BIOPLASTIC FROM BANANA CELLULOSE AND ITS MICROBIAL DEGRADABILITY USING CELLULOSE-DEGRADING BACTERIA" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by NIVASHKUMAR.K (Reg. No: 22MPBT1024) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, (Autonomous) Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Dr. D. RAJASEKARAN, M.Sc., M.Phil., Ph.D.,

Assistant Professor, Department of Biotechnology,

Authayammal College of Arts and Science,

Rasipuram, Namakkal Dr. 37/103
Submitted for the project viva voce examination held on 15.05.2024

5 Muhm

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS)

RASIPURAM (Tk), NAMAKKAL (DT)-837 (6)3

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D.,

Professor & Head, Y. Dept. of Biotechnology,

Salem - Periyar, University, u, India. m - 636 011, Tamil Nadu, India. Dr. D. RAJASEKARAN, M.Sc., M.Phil., Ph.D.,

Assistant Professor,

Department of Biotechnology, Muthayammal College of Arts and Science,

Rasipuram, Namakkal Dt-637408.

BIODEGRADATION OF HEAVY METAL USING FUNGI

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By
RANJITHRAJ A
(Reg. No.: 22MPBT1025)



Under the Guidance of
Dr. D. KAVITHA, M.Sc., M.Phil., Ph.D.,

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem.

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) &12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem.

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "BIODEGRADATION OF HEAVY METAL USING FUNGI" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by RANJITHRAJ A (Reg. No.: 22MPBT1025) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision / guidance and this project report has not formed the basis for the award of Degree / Diploma / Associatesship / fellowship or similar title to any candidate of any University.

D. Haville Project Guide

Head of the Department

LIN OF BIOTECHNOLOGY

Submitted for the project Viva-Voce examination held on

TO DESCRIPTION SCIENCE

2. D. Karille

RASIPURAM (Tk), NAMAKKAL (DT)-637 408.

Examiners:

Dr. R. KAVITHA MSc., M Phil., Ph.D.,

Profession Linead, Dept of Biolechnology,

Pept of Biolechnology, F i/ar University,

Salem - € 311, Tamil Nadu, India.

INVITRO ANTIDIABETIC AND ANTIOXIDANTS ACTIVITY OF CYNODON DACTYLON

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

By

SANJAI K

Reg. No.: 22MPBT1023



Under the Guidance of

Dr. D. RAJASEKARAN, M.Sc., M.Phil., Ph.D., (Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem, Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram-637408. Namakkal District, Tamil nadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "Invitro Antidiabetic and Antioxidants activity of Cynodon dactylon" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by SANJAI.K (Reg. No: 22MPBT1026) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

RAJADEHARAN, M.Sc., M.Phil., Ph.D.

Department of Biotechnology,

Muthayammal College of Arts and Science,

Rasipuram, Namakkal Dt-637408.

Submitted for the project viva voce examination held on

Examiners:

Dr. R. KAVITHA, M.Sc., M.Phil., Ph.D.,

Professor & Head,

Dept. of Biotechnology, Periyar University,

Salem - 636 011, Tamil Nadu, India.

Head of the Department

HEAD OF THE DEPARTMENT
DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

AUTONOMOUS)

ASIFURAM (TK), NAMAKKAL (DT)-637 408.

Dr. D. RAMSERADAN ...

Dr. D. RAJASEKARAN, M.Sc., M.Frii., Pin.D.,
Assistant Professor,

Department of Biotechnology,
Muthayammal College of Arts and Science,

Rasipuram, Namakali Dr. 637408.

A. . slett Pro-

ANTI-ULCER PROPERTIES OF PRE AND PROBIOTICS POWDER PREPARED FROM NATURAL SOURCE USING ZEBRA FISH AS AN INVIVO MODEL

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

 $\mathbf{B}\mathbf{y}$

SURESH P

(Reg. No.: 22MPBT1027)



Under the Guidance of
Mrs. K. CHITRA, M.Sc., M.Phil.,
(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408 Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "ANTI-ULCER PROPERTIES OF PRE AND PROBIOTICS POWDER PREPARED FROM NATURAL SOURCE USING ZEBRA FISH AS AN INVIVO MODEL" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done SURESH P (Reg. No: 22MPBT1027) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Project Guide

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(AUTONOMOUS) RASIPURAM (Tk), NAMAKKAL (DT)-637 408

Submitted for the project viva voce examination held on 15-05-2024

Examiner

Dept. of Biotechnology, Periyar University,

Salem - 636 011, Tamil Nadu, India.

2. 8. 15/5/24

ANTICANCER EFFECT OF Terminalia arjuna POWDER EXTRACT AGAINST LIVER CANCER CELL LINE VIA INDUCTION 0F APOPTOSIS

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

SURIYA P

(Reg. No: 22MPBT1028)



Under the Guidance of

Dr. K. REVATHI, M.Sc., Ph.D.,

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram-637408. Namakkal District, Tamilnadu.

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project report entitled "ANTICANCER EFFECT OF Terminalia arjuna POWDER EXTRACT AGAINST LIVER CANCER CELL LINE VIA INDUCTION OF APOPTOSIS" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by SURIYA.P (Reg. No: 22MPBT1028) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, (Autonomous) Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Profect Guide

Dr. K. REVATHI

ge of Arts and Science

Head of the Department

Dr.P. SELVAMALEESWARAN M.So., M.Phil., Pr. !

Department of Biotechnology

Muthayammal College of Arts & Sr.

e of Arts and Science

e projectivity voce examination held of significance of Arts & Sr.

Tamilnadu, India

Examiners:

Professor & Head, Dept. of Biotechnology.

Periyar University, 1. Tamil Nadu, India.

Isolation of Marine Bacterial endophyte Streptomyces zaomyceticus against Multi-Drug Resistant pathogens and antioxidant properties

Project report submitted to Periyar University, Salem in partial fulfilment of the requirements for the awards of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

VASANTHARAJAN K. M

Reg. No.: 22PBT1029



Under the guidance of

Dr. P. SELVAMALEESWARAN, M.Sc., M.Phil., Ph.D.,

(Assistant Professor & Head)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

(An Autonomous Institution)

Affiliated to Periyar University, Salem,
Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),
Rasipuram - 637 408, Namakkal District, Tamil Nadu.

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "Isolation of Marine Bacterial endophyte Streptomyces zaomyceticus against Multi-Drug Resistant Pathogens and Antioxidant Properties" Submitted to Periyar University, Salem in partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by VASANTHARAJAN K.M (Reg. No: 22MPBT1029) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science, Rasipuram (Autonomous) under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associates ship / Fellowship or similar title to any candidate of any University.

Dr.P. SELVAMALEESWARAN M.Sc. M.Phil.Ph.D.

Department of Biotechnology Muthayammal College of Arts & Science Rasipuram 637 408. Namakkal (Dt)

Tamilnadu India. Submitted for the project viva voce examination held on 15.05.2024

Examiners:

Dr. R. KAVITRA, M.Sc., M.Phil., Ph.D.,

Professor & Head. Dept. of B otechnology.

Periy: University, Salem - 636 011, Tamil Nadu, India. 2. p. 5. Mahrer

HEAD OF THE DEPARTMENT DEPARTMENT OF BIOTECHNOLOGY

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE

(AUTOHOMOUS)

GREEN SYNTHESIS OF SILVER NANOPARTICLES FROM Dioscorea oppositifolia AND ITS ANTIOXIDANT, ANTIBACTERIAL, AND ANTI ARTHRITIS ACTIVITY

Project report submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

by

VENKATESH J

(Reg. No.: 22MPBT1030)



Under the Guidance of

Mrs. R. NALINI, M.Sc., M.Phil., NET., SET.

(Assistant Professor)

DEPARTMENT OF BIOTECHNOLOGY MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with 'A' grade, Recognized by UGC under Section 2(f) & 12(B),

Rasipuram - 637 408, Namakkal District, Tamil Nadu.

MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Affiliated to Periyar University, Salem,

Accredited by NAAC with "A" grade, Recognized by UGC under Section 2(f) & 12(B), Rasipuram-637408. Namakkal District, Tamilnadu

DEPARTMENT OF BIOTECHNOLOGY



CERTIFICATE

This is to certify that the Project Report entitled "Green Synthesis of Silver Nanoparticles From Dioscorea oppositifolia and its Antioxidant, Antibacterial, and Anti-Arthritis Activity" Submitted to Periyar University, Salem in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN BIOTECHNOLOGY is a record of original research work done by VENKATESH J (Reg. No: 22MPBT1030) during the period of his study (2022-2024) in the Department of Biotechnology, Muthayammal College of Arts and Science (Autonomous), Rasipuram under my supervision/guidance and this project report has not formed the basis for the award of Degree / Diploma / Associateship / Fellowship or similar title to any candidate of any University.

Project Guide

Head of the Department
HEAD OF THE DEPARTMENT
DEPARTMENT OF BIOTECHNOLOGY
MUTHAYAMMAL COLLEGE OF ARTS AND SCIENCE
(AUTONOMOUS)
RASIPURAM (Tk), NAMAKKAL (DT)-637 408.

Submitted for the project viva voce examination held on 15.05-2024

Examiners:

2. ENJ, 24





(Funded by the MoE, Govt. of India)

This certificate is awarded to

ABIRAMI C

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 21.25/25 | Proctored Exam

Total number of candidates certified in this course: 536

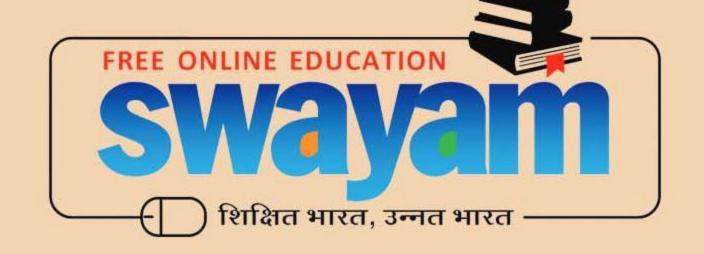
Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati











(Funded by the MoE, Govt. of India)

This certificate is awarded to

M GAYATHRI

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 21.85/25 | Proctored Exam

Total number of candidates certified in this course: 536

Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati





Indian Institute of Technology Guwahati





(Funded by the MoE, Govt. of India)

This certificate is awarded to

JANANI V M

for successfully completing the course

Wastewater Treatment and Recycling

with a consolidated score of

53 %

Online Assignments | 19.81/25

Proctored Exam

33/75

Total number of candidates certified in this course: 1249

Jul-Oct 2023

(12 week course)

Prof. Haimanti Banerji Coordinator, NPTEL IIT Kharagpur



Indian Institute of Technology Kharagpur

Roll No: NPTEL23CE85S543000974



No. of credits recommended: 3 or 4

To verify the certificate





(Funded by the MoE, Govt. of India)

This certificate is awarded to

KEERTHANA

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments 21.66/25 Proctored Exam

Total number of candidates certified in this course: 536

Jan-Apr 2024

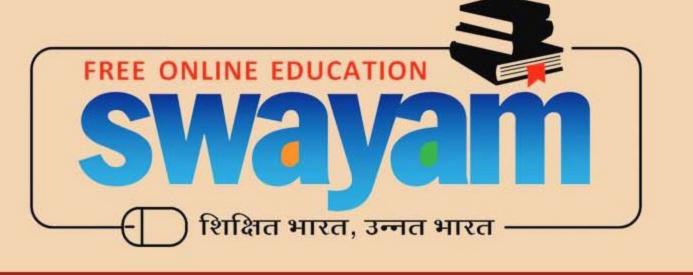
(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology

NPTEL Coordinator, IIT Guwahati



Indian Institute of Technology Guwahati









(Funded by the MoE, Govt. of India)



V NARMADHA

for successfully completing the course

Human Behaviour

with a consolidated score of

Online Assignments | 22.08/25 | Proctored Exam

Total number of candidates certified in this course: 2837

Feb-Apr 2024

(8 week course)

Prof. T. V. Bharat

Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati



Indian Institute of Technology Guwahati











(Funded by the MoE, Govt. of India)

This certificate is awarded to

NISHANTHINI V

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of

Online Assignments | 10.81/25 | Proctored Exam

Total number of candidates certified in this course: 605

Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati









(Funded by the MoE, Govt. of India)

This certificate is awarded to

RASIKA R

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 20.85/25 | Proctored Exam

Total number of candidates certified in this course: 536

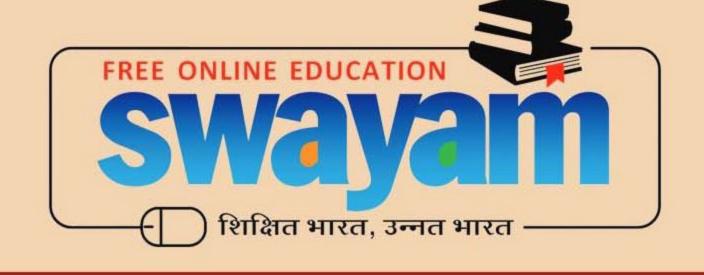
Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati











(Funded by the MoE, Govt. of India)

This certificate is awarded to

SATHYA P

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 21.85/25 | Proctored Exam

Total number of candidates certified in this course: 536

Jan-Apr 2024

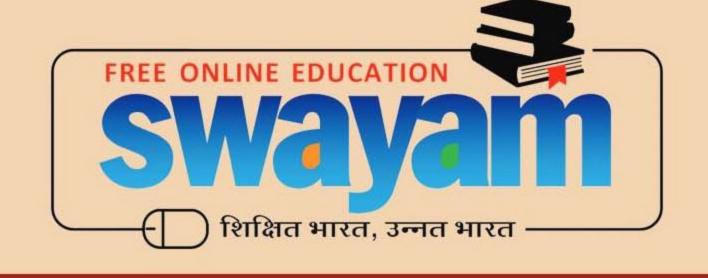
(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology

NPTEL Coordinator, IIT Guwahati











(Funded by the MoE, Govt. of India)

This certificate is awarded to

SINDHU G

for successfully completing the course

Molecular Biology

with a consolidated score of

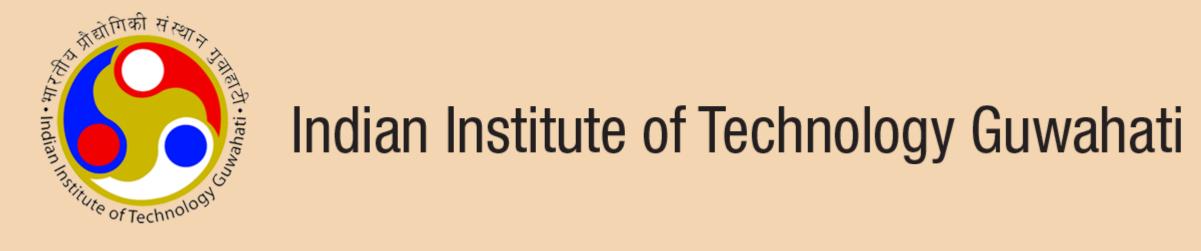
Online Assignments | 20.63/25 | Proctored Exam

Total number of candidates certified in this course: 536

Jan-Apr 2024

(12 week course)

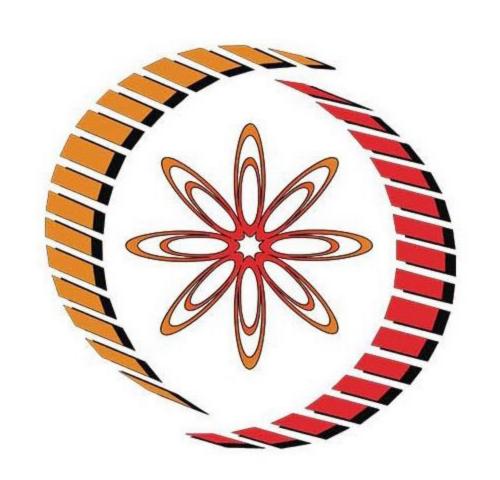
Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati













(Funded by the MoE, Govt. of India)

This certificate is awarded to

SNEHA M

for successfully completing the course

Molecular Biology

with a consolidated score of

66

Online Assignments 21.25/25 Proctored Exam

Total number of candidates certified in this course: 536

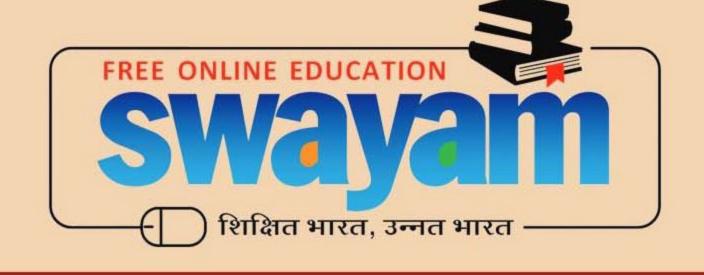
Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati



Indian Institute of Technology Guwahati









(Funded by the MoE, Govt. of India)

This certificate is awarded to

SWETHA A

for successfully completing the course

Molecular Biology

with a consolidated score of

60

Online Assignments | 21/25

Proctored Exam

38.5/75

Total number of candidates certified in this course: 536

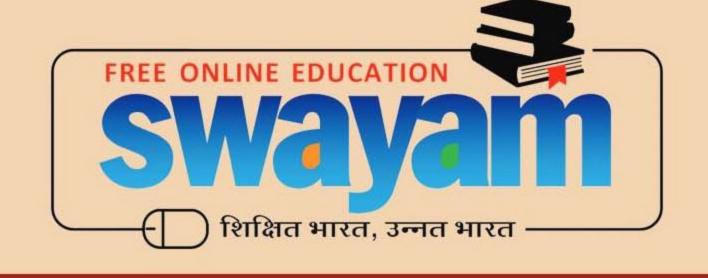
Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati











(Funded by the MoE, Govt. of India)

This certificate is awarded to

DINESHS

for successfully completing the course

Plant Cell Bioprocessing

with a consolidated score of

Online Assignments | 16.04/25 | Proctored Exam

39.75/75

Total number of candidates certified in this course: 390

Prof. Devendra Jalihal

Devendra Jalihal

Chairperson, Centre for Outreach and Digital Education, IITM Jul-Sep 2023

(8 week course)

Prof. Andrew Thangaraj

NPTEL, Coordinator **IIT Madras**



Indian Institute of Technology Madras









(Funded by the MoE, Govt. of India)

This certificate is awarded to

ESAKIDINESH T

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 21.85/25 | Proctored Exam

Total number of candidates certified in this course: 536

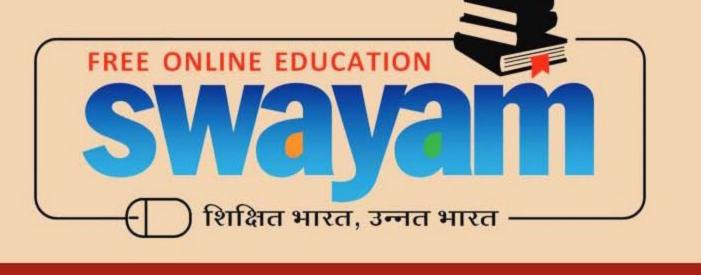
Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati



Indian Institute of Technology Guwahati









(Funded by the MoE, Govt. of India)

This certificate is awarded to

S GNANAPRAKASH

for successfully completing the course

Plant Cell Bioprocessing

with a consolidated score of

Online Assignments | 18.33/25 | Proctored Exam

32.63/75

Total number of candidates certified in this course: 388

Prof. Devendra Jalihal

Devendra Jalihal

Chairperson, Centre for Outreach and Digital Education, IITM Jul-Sep 2023

(8 week course)

Prof. Andrew Thangaraj

NPTEL, Coordinator **IIT Madras**



Indian Institute of Technology Madras







(Funded by the MoE, Govt. of India)

This certificate is awarded to

GOWTHAM

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 21.63/25 | Proctored Exam

Total number of candidates certified in this course: 536

Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati





Indian Institute of Technology Guwahati



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

NATARAJAN

for successfully completing the course

Plant Cell Bioprocessing

with a consolidated score of

Online Assignments | 21.25/25 | Proctored Exam

42.75/75

Total number of candidates certified in this course: 390

Devendra Jalihal Prof. Devendra Jalihal

Chairperson, Centre for Outreach and Digital Education, IITM Jul-Sep 2023

(8 week course)

Prof. Andrew Thangaraj NPTEL, Coordinator

IIT Madras



Indian Institute of Technology Madras







(Funded by the MoE, Govt. of India)

This certificate is awarded to

SANJAI

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 22.06/25 | Proctored Exam

Total number of candidates certified in this course: 536

Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati



Indian Institute of Technology Guwahati







(Funded by the MoE, Govt. of India)

This certificate is awarded to

SURESH P

for successfully completing the course

Animal Physiology

with a consolidated score of

Online Assignments | 18.75/25 | Proctored Exam

Total number of candidates certified in this course: 856

Prof. B. V. Ratish Kumar Chairman, Centre for Continuing Education IIT Kanpur

Jul-Oct 2023

(12 week course)

Prof. Satyaki Roy NPTEL Coordinator

IIT Kanpur

FREE ONLINE EDUCATION



Indian Institute of Technology Kanpur







(Funded by the MoE, Govt. of India)

This certificate is awarded to

SURIYA P

for successfully completing the course

Plant Cell Bioprocessing

with a consolidated score of

49

%

Online Assignments | 17.71/25

Proctored Exam

31.5/75

Total number of candidates certified in this course: 388

Devendra Jalihal Prof. Devendra Jalihal

Chairperson, Centre for Outreach and Digital Education, IITM

Roll No: NPTEL23BT42S45490044

Jul-Sep 2023

(8 week course)

Prof. Andrew Thangaraj NPTEL, Coordinator IIT Madras





No. of credits recommended: 2 or 3

To verify the certificate



Elite

NPTEL Online Certification

(Funded by the MoE, Govt. of India)

This certificate is awarded to

VASANTHARAJAN K M

for successfully completing the course

Cell Culture Technologies

with a consolidated score of

60

%

Online Assignments | 22.08/25

Proctored Exam

37.5/75

Total number of candidates certified in this course: 1634

Prof. B. V. Ratish Kumar Chairman, Centre for Continuing Education IIT Kanpur

Aug-Oct 2023

(8 week course)

Prof. Satyaki Roy NPTEL Coordinator IIT Kanpur



Indian Institute of Technology Kanpur



No. of credits recommended: 2 or 3





(Funded by the MoE, Govt. of India)

This certificate is awarded to

VENKATESH J

for successfully completing the course

Molecular Biology

with a consolidated score of

Online Assignments | 22.28/25 | Proctored Exam

Total number of candidates certified in this course: 536

Jan-Apr 2024

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology

NPTEL Coordinator, IIT Guwahati















Issued On: 21/06/2024

This certificate is awarded to

Aboorva C

for successfully completing the 4 credit course

Cell Biology

with a consolidated score of 51% from the evaluation based on continuous online assessments and the proctored

examination held in month of May 2024.

Roll No.: TN17062859

This course was offered by Dr. K. Sanatombi of Manipur University, Imphal

Marks in Online	e Assignments	Marks in Pro	ctored Exam	Total	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	28	100	51

J. B. Nadda

National Coordinator
Consortium for Educational Communication (CEC),

New Delhi

CEC

Prof. W. C. Singh Registrar Manipur University, Imphal









This certificate is awarded to

Aruna S

for successfully completing the 4 credit course

Cell Biology

with a consolidated score of 55%

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.



Roll No.: TN17062861

This course was offered by Dr. K. Sanatombi of Manipur University, Imphal

Marks in Online	e Assignments	Marks in Pro	ctored Exam	Total	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	32	100	55

J. B. Nadda

National Coordinator
Consortium for Educational Communication (CEC),
New Delhi

CEC

Prof. W. C. Singh Registrar Manipur University, Imphal

Issued On: 21/06/2024





(Funded by the MoE, Govt. of India)

This certificate is awarded to

B DHARANI

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of

Online Assignments | 16.06/25 | Proctored Exam

Total number of candidates certified in this course: 605

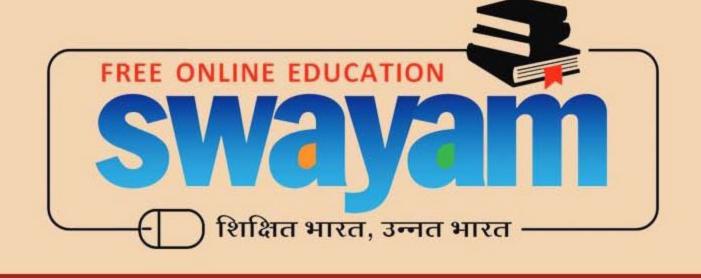
Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati













(Funded by the MoE, Govt. of India)

This certificate is awarded to

RAJESHWARIS

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of

Online Assignments | 21.97/25 | Proctored Exam

42.75/75

Total number of candidates certified in this course: 605

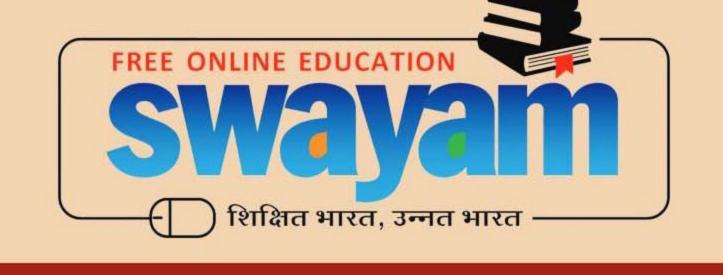
Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati















Issued On: 21/06/2024

This certificate is awarded to

Aboorva C

for successfully completing the 4 credit course

Cell Biology

with a consolidated score of 51% from the evaluation based on continuous online assessments and the proctored

examination held in month of May 2024.

Roll No.: TN17062859

This course was offered by Dr. K. Sanatombi of Manipur University, Imphal

Marks in Online	e Assignments	Marks in Pro	ctored Exam	Total	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	28	100	51

J. B. Nadda

National Coordinator
Consortium for Educational Communication (CEC),

New Delhi

CEC

Prof. W. C. Singh Registrar Manipur University, Imphal









This certificate is awarded to

Aruna S

for successfully completing the 4 credit course

Cell Biology

with a consolidated score of 55%

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.



Roll No.: TN17062861

This course was offered by Dr. K. Sanatombi of Manipur University, Imphal

Marks in Online	e Assignments	Marks in Pro	ctored Exam	Total	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	32	100	55

J. B. Nadda

National Coordinator
Consortium for Educational Communication (CEC),
New Delhi

CEC

Prof. W. C. Singh Registrar Manipur University, Imphal

Issued On: 21/06/2024





(Funded by the MoE, Govt. of India)

This certificate is awarded to

B DHARANI

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of

Online Assignments | 16.06/25 | Proctored Exam

Total number of candidates certified in this course: 605

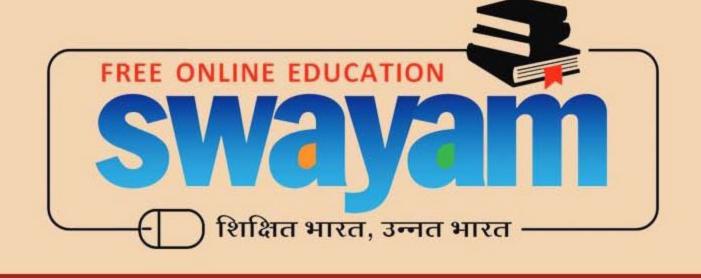
Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati













(Funded by the MoE, Govt. of India)

This certificate is awarded to

RAJESHWARIS

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of

Online Assignments | 21.97/25 | Proctored Exam

42.75/75

Total number of candidates certified in this course: 605

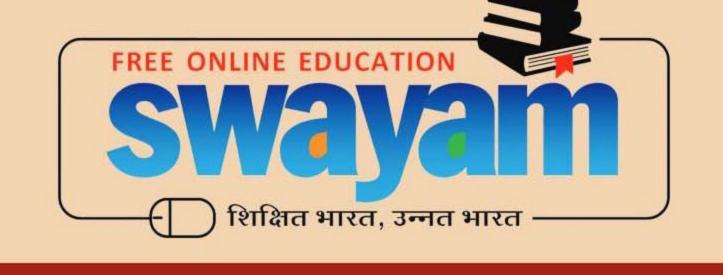
Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati











(Funded by the MoE, Govt. of India)

This certificate is awarded to

S SOUMIYA

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of

Online Assignments | 16.41/25 | Proctored Exam

Total number of candidates certified in this course: 605

Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat Head, Centre for Educational Technology NPTEL Coordinator, IIT Guwahati













Issued On: 21/06/2024

This certificate is awarded to Varsha for successfully completing the 4 credit course Cell Biology

with a consolidated score of 57% from the evaluation based on continuous online assessments and the proctored

examination held in month of May 2024.

Roll No.: TN17062860

This course was offered by Dr. K. Sanatombi of Manipur University, Imphal

Marks in Online	e Assignments	Marks in Pro	ctored Exam	Total	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	34	100	57

National Coordinator Consortium for Educational Communication (CEC),

New Delhi



Prof. W. C. Singh Registrar Manipur University, Imphal





(Funded by the MoE, Govt. of India)

This certificate is awarded to

S SWATHI

for successfully completing the course

Introduction to Cell Biology

with a consolidated score of

54

%

36.36/75

Online Assignments | 17.92/25 | Proctored Exam

Total number of candidates certified in this course: 952

Santiaran

Prof. M. S. Santhanam

Dean, International Relations and Outreach
IISER Pione

Aug-Oct 2023

(8 week course)

Prof. Andrew Thangaraj
NPTEL, Coordinator IIT Madras

IISER PUNE and Research Pune

IISER - Indian Institute of Science Education





NPTEL Online Certification (Funded by the MoE, Govt. of India)

This certificate is awarded to

SANTHIYA S

for successfully completing the course

Genetic Engineering: Theory and Application

with a consolidated score of

51

%

Online Assignments | 20.75/25 | Proctored Exam | 30/75

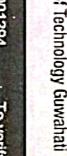
Total number of candidates certified in this course: 605

Jul-Oct 2023

(12 week course)

Prof. T. V. Bharat
Head, Centre for Educational Technology
NPTEL Coordinator, IIT Guwahati







Roll No: NPTEL23BT35S646001294

To verify the certificate

No. of credits recommended: 3 or









This certificate is awarded to

Gowtham S

for successfully completing the 4 credit course

Animal Biotechnology

with a consolidated score of 54%

FOUND: INTRODUCT

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.

This course was offered by Dr. Jayasree S. of University of Calicut

Y.	é	31	70	ß	33
Obtained	Total	Obtained	Total	Obtained	Total
Score	Total Score	Marks in Proctored Exam	Marks in Pr	Marks in Online Assignments	Warks in Onli



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Coordination for Educational Communication (CEC)
New Delhi



Dr. Jos. T. Puthur Director, IQAC University of Calicut

To validate and check somes: https://swayan.gov.in

12(24)(2 v.) 1988









This certificate is awarded to

Mohammad Faizan

for successfully completing the 4 credit course

Animal Biotechnology

from the evaluation based on continuous online assessments and the proctored with a consolidated score of 55%

Roll No.: TN17061872

KC:

examination held in month of May 2024.

This course was offered by Dr. Jayasree S. of University of Calicut

Marks in Online Assignments	e Assignments	Marks in Proctored Exam	ctored Exam	Total Score	score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	32	100	55



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New Delhi



Dr. Jos. T. Puthur Director, IQAC

University of Calicut

To validate and check scores: https://swayam.gov.in

Issued On: 21/06/2024









This certificate is awarded to Mohammad Faizan

for successfully completing the 4 credit course

Animal Biotechnology

with a consolidated score of 55%

Roll No.: TN17061872

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.

This course was offered by Dr. Jayasree S. of University of Calicut

Marks in Onlin	Marks in Online Assignments	Marks in Proctored Exam	ctored Exam	Total Score	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	32	100	55

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Consortium for Educational Communication (CEC),
New Delhi

lagued On : 21/06/7024



Dr. Jos. T. Puthur Director, IQAC University of Calicut









This certificate is awarded to

Mohan R

for successfully completing the 4 credit course

Animal Biotechnology

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024. with a consolidated score of 59%

Roll No.: TN17061937

This course was offered by Dr. Jayasree S. of University of Calicut

Marks in Onlin	Marks in Online Assignments	Marks in Proctored Exam	ctored Exam	Total Score	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	36	100	59



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Consortium for Educational Communication (CEC),
New Delhi



Dr. Jos. T. Puthur
Director, IQAC
University of Calicut

Issued On: 21/06/2024









This certificate is awarded to

Swethabalachandar

for successfully completing the 4 credit course

Animal Biotechnology

with a consolidated score of 80%

Roll No.: TN17062761

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.

This course was offered by Dr. Jayasree S. of University of Calicut

80	100	55	70	25	30
Obtained	Total	Obtained	Total	Obtained	Total
Score	Total Score	ctored Exam	Marks in Proctored Exam	Assignments	Marks in Online Assignments

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Consortium for Educational Communication (CEC),
New Delhi

Issued On: 21/06/2024



Dr. Jos. T. Puthur Director, IQAC University of Calicut









This certificate is awarded to Swethabalachandar

for successfully completing the 4 credit course

Animal Biotechnology

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024. with a consolidated score of 80%

Roll No.: TN17062761

This course was offered by Dr. Jayasree S. of University of Calicut

80	100	55	70	25	30
Obtained	Total	Obtained	Total	Obtained	Total
Score	Total Score	ctored Exam	Marks in Proctored Exam	Assignments	Marks in Online Assignments

J. B. Nadda

National Coordinator
Consortium for Educational Communication (CEC),
New Delhi

Issued On: 21/06/2024



Dr. Jos. T. Puthur Director, IQAC University of Calicut









This certificate is awarded to

Anupriya R

for successfully completing the 4 credit course

Animal Biotechnology

with a consolidated score of 83%

Roll No.: TN17062759

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.

This course was offered by Dr. Jayasree S. of University of Calicut

Marks in Online Assignments	e Assignments	Marks in Proctored Exam	ctored Exam	Total Score	Score
Total	Obtained	Total	Obtained	Total	Obtained
30	23	70	60	100	83

J. B. Nadda

National Coordinator
Consortium for Educational Communication (CEC),
New Delhi

Issued On: 21/06/2024



Dr. Jos. T. Puthur
Director, IQAC
University of Calicut









This certificate is awarded to

Iswarya M

for successfully completing the 4 credit course
Animal Biotechnology

with a consolidated score of 68%

Roll No.: TN17062760

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.

This course was offered by Dr. Jayasree S. of University of Calicut

68	100	43	70	25	30
	7.5				
Obtained	Total	Obtained	Total	Obtained	Total
Score	Total Score	ctored Exam	Marks in Proctored Exam	Assignments	Marks in Online Assignments

J. B. Nadda

National Coordinator
Consortum for Educational Communication (CEC),
New Delhi

Issued On: 21/06/2024



Dr. Jos. T. Puthur Director, IQAC

Director, IQAC University of Calicut









This certificate is awarded to

Renuga P

for successfully completing the 4 credit course
Animal Biotechnology

with a consolidated score of 87%

Roll No.: TN17062763

from the evaluation based on continuous online assessments and the proctored examination held in month of May 2024.

This course was offered by Dr. Jayasree S. of University of Calicut

87	100	63	70	24	30
Obtained	Total	Obtained	Total	Obtained	Total
score	Total Score	ctored Exam	Marks in Proctored Exam	Assignments	Marks in Online Assignments



National Coordinator
Consortium for Educational Communication (CEC),
New Delhi

Issued On: 21/06/2024



Dr. Jos. T. Puthur Director, IQAC University of Calicut