

BIOCHEMICAL PROFILE AND BIOACTIVE EFFICACY OF SEAWEEDS AGAINST HUMAN DRUG RESISTANT PATHOGENS

Summer Internship Report Submitted for the award of

Degree of Master of Science in Zoology



Submitted By

T.S. AKSHAYA (2022MSCZ01)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



Dr. R. ARTHUR JAMES
Professor and Chair

Email : james@bdu.ac.in / james.msbd@gmail.com; Ph : (+91) 431-2407072 Extn : 553

CERTIFICATE

This is to certify that the internship titled “**Biochemical profile and bioactive efficacy of seaweeds against human drug resistant pathogens**” was carried out under my supervision by Ms. **T. S. AKSHAYA** (Reg.No:2022MSCZ01), I M.Sc., student from the Department of Zoology, Fatima College (Autonomous), Madurai - 625 018 at the Department of Marine Science, Bharathidasan University, Tiruchirappalli - 620 024 during the period from May 10th to June 9th, 2023 (1 month).

Date: 09/06/2023

Place: Tiruchirappalli


(R. ARTHUR JAMES)



FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. T.S. AKSHAYA (2022MSCZ01)** in Bharathidasan University, Department of Marine Science, Tiruchirappalli – 620 024 from 10.05.2023 to 10.06.2023.

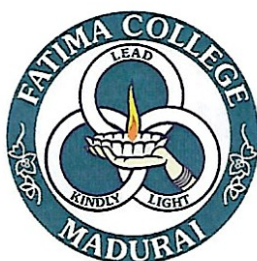
Antony Anula Jayasuli
Head of the Department

V. P. S. S. S.
Staff in Charge

BASIC MOLECULAR & MICROBIOLOGY TECHNIQUE

Summer Internship Report Submitted for the award of

Degree of Master of Science in Zoology



Submitted By

P. ANJUGAM (2022MSCZ02)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



MADURAI KAMARAJ UNIVERSITY
(University with Potential for Excellence)
School of Biological Sciences
Madurai - 625 021
Tamilnadu, India



Dr. U. Ramesh
Assistant Professor and Head i/c
Department of Molecular Biology

INTERNSHIP CERTIFICATE

This is to certify that the candidate **Ms. P. Anjugam, II – M.Sc., Zoology**, from
Fatima College (Autonomous), Madurai has attended the Internship program
dated from 15th May to 15th June in the topic “Basic Molecular and
Microbiology Technique” in the Department of Molecular Biology.

Place: Madurai

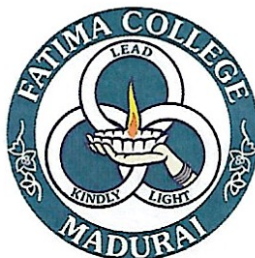
Date: 26.06.2023

Signature
U. Ramesh
Head of the Department
26/06/23

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. P. ANJUGAM (2022MSCZ02)** in Madurai Kamaraj University, Department of Molecular Biology, Madurai- 625021 from 10.05.2023 to 10.06.2023.

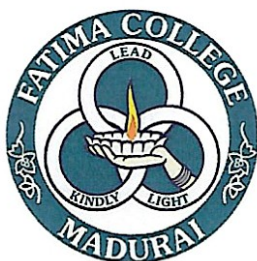
Anthony Ananda Rajan
Head of the Department

P. Anjugam
Staff in Charge

BASIC MOLECULAR & MICROBIOLOGY TECHNIQUE

Summer Internship Report Submitted for the award of

Degree of Master of Science in Zoology



Submitted By

P. ANTONETTE SIENA (2022MSCZ03)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



MADURAI KAMARAJ UNIVERSITY
(University with Potential for Excellence)
School of Biological Sciences
Madurai - 625 021
Tamilnadu, India



Dr. U. Ramesh

Assistant Professor and Head i/c
Department of Molecular Biology

INTERNSHIP CERTIFICATE

This is to certify that the candidate **Ms. P. Antonette Siena, II – M.Sc., Zoology**, from **Fatima College (Autonomous), Madurai** has attended the Internship program dated from 15th May to 15th June in the topic “Basic Molecular and Microbiology Technique” in the Department of Molecular Biology.

Place: Madurai

Date: 26.06.2023

Signature

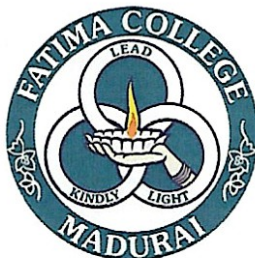
Head of the Department

U. Ramesh
26/06/23

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. P. ANTONETTE SIENA (2022MSCZ03)** in Madurai Kamaraj University, Department of Molecular Biology Madurai – 625021 from 15.05.2023 to 15.06.2023.

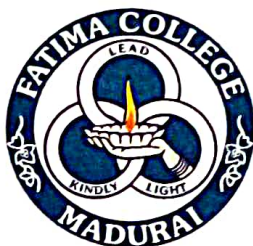
Anthony Samuel Jayasankar
Head of the Department

V. B. H. T.
Staff in Charge

BASIC MOLECULAR & MICROBIOLOGY TECHNIQUE

Summer Internship Report Submitted for the award of

Degree of Master of Science in Zoology



Submitted By

K. HIMALINI (2022MSCZ04)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



MADURAI KAMARAJ UNIVERSITY
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School of Biological Sciences
Madurai - 625 021
Tamilnadu, India



Dr. U. Ramesh
Assistant Professor and Head i/c
Department of Molecular Biology

INTERNSHIP CERTIFICATE

This is to certify that the candidate **Ms. K. Himalini, II – M.Sc., Zoology**, from
Fatima College (Autonomous), Madurai has attended the Internship program
dated from 15th May to 15th June in the topic “Basic Molecular and
Microbiology Technique” in the Department of Molecular Biology.

Place: Madurai

Date: 26.06.2023

Signature

Head of the Department

[Handwritten signature]
26/06/23

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

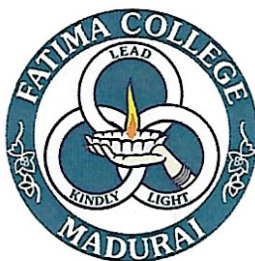
This is a report of Summer Internship Program carried out by **Ms. K. HIMALINI (2022MSCZ04)** in Madurai Kamaraj University, Department of Molecular Biology Madurai – 625021 from 15.05.2023 to 15.06.2023.

Subbayya Sankararaj
Head of the Department

V. B. Shit
Staff in Charge

BIOCHEMICAL PROFILE AND BIOACTIVE EFFICACY OF SEAWEEDS AGAINST HUMAN DRUG RESISTANT PATHOGENS

Summer Internship Report Submitted for the award of
Degree of Master of Science in Zoology



Submitted By

P. JEMIMA GLADY (2022MSCZ05)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



Dr. R. ARTHUR JAMES
Professor and Chair

Email : james@bdu.ac.in / james.msbd@bdu.ac.in; Ph : (+91) 431-2407072 Extn : 553

CERTIFICATE

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Date: 09/06/2023

Place: Tiruchirappalli


(R. ARTHUR JAMES)



FATIMA COLLEGE (AUTONOMOUS)

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PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. P. JEMIMA GLADY (2022MSCZ05)** in Bharathidasan University, Department of Marine Science, Tiruchirappalli – 620 024 from 10.05.2023 to 10.06.2023.

Antony Ananda Jayaram

Head of the Department

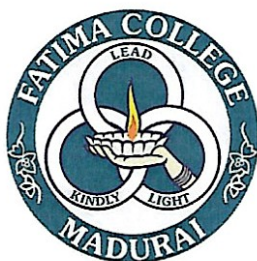
V. P. P. P.

Staff in Charge

BASIC MOLECULAR & MICROBIOLOGY TECHNIQUE

Summer Internship Report Submitted for the award of

Degree of Master of Science in Zoology



Submitted By

P. MERCILIN (2022MSCZ06)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



MADURAI KAMARAJ UNIVERSITY
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School of Biological Sciences
Madurai - 625 021
Tamilnadu, India



Dr. U. Ramesh
Assistant Professor and Head i/c
Department of Molecular Biology

INTERNSHIP CERTIFICATE

This is to certify that the candidate **Ms. P. Mercilin**, II – M.Sc., Zoology, from
Fatima College (Autonomous), Madurai has attended the Internship program
dated from 15th May to 15th June in the topic “Basic Molecular and
Microbiology Technique” in the Department of Molecular Biology.

Place: Madurai

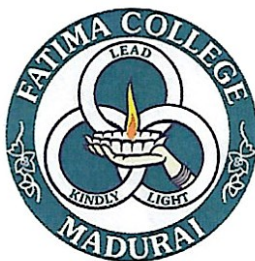
Date: 26.06.2023

Signature 
26/06/23
Head of the Department

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. P. MERCILIN** (2022MSCZ06) in Madurai Kamaraj University, Department of Molecular Biology Madurai – 625021 from 15.05.2023 to 15.06.2023.

Anthony Amala Jayaraman
Head of the Department

V. Bhu
Staff in Charge

ESSENTIAL PARAMETERS FOR PREPARATION OF AYURVEDIC FORMULATIONS

Summer Internship Report Submitted for the award of
Degree of Master of Science in Zoology



Submitted By

B. SARASWATHI (2022MSCZ07)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

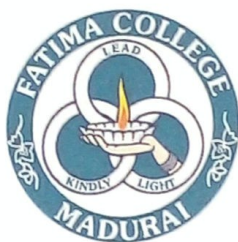
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JULY 2023

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. B. SARASWATHI** (2022MSCZ07) in AVN Ayurveda Formulation Pvt. Ltd. Vilacheri Main Road, Madurai – 625004 from 15.05.2023 to 15.06.2023.

Satya Anala Prasad
Head of the Department

V. B. S.
Staff in Charge



N. Rama Varier Ayurveda Foundation

Biotechnology Research Center Affiliated to Alagappa University

Madurai, Tamil Nadu



INTERNSHIP CERTIFICATE AWARDED TO

Name B. SARASWATHI

Degree Ist M.Sc. (2022MSC07)

College / University FATIMA COLLEGE - MADURAI

Has undergone training from 15/05/2023 to 14/06/2023 in our ayurvedic pharma industry & research center. During the training he /she has exposed to divisions of ayurvedic industry such as, raw material store, production, tableting, packing, quality control, quality assurance, phytochemical analysis, research & development

He / She was curious and very interactive during the training session

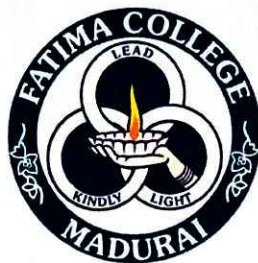


Dr. Suresh Govindan
Research Head

Dr. Ramesh R. Varier
Managing Trustee

ESSENTIAL PARAMETERS FOR PREPARATION OF AYURVEDIC FORMULATIONS

Summer Internship Report Submitted for the award of
Degree of Master of Science in Zoology



Submitted By

L. SATHYARANI (2022MSCZ08)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

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Antony Anala Dayanathi
Head of the Department

V. P. S.
Staff in Charge



N. Rama Varier Ayurveda Foundation

Biotechnology Research Center Affiliated to Alagappa University

Madurai, Tamil Nadu



INTERNSHIP CERTIFICATE AWARDED TO

Name L. SATHYARANI

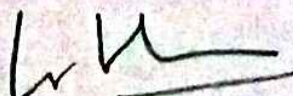
Degree Ist M.Sc. (2022MSCZ08)


College / University FATIMA COLLEGE - MADURAI

Has undergone training from 15/05/2023 to 14/06/2023 in our ayurvedic pharma industry & research center. During the training he /she has exposed to divisions of ayurvedic industry such as raw material store, production, tableting, packing, quality control, quality assurance, phytochemical analysis, research & development

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Dr. Suresh Govindan
Research Head


Dr. Ramesh R. Varier
Managing Trustee

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Summer Internship Report Submitted for the award of
Degree of Master of Science in Zoology



Submitted By

S. THAHSIN BANU (2022MSCZ09)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. S. THAHSIN BANU (2022MSCZ09)** in AVN Ayurveda Formulation Pvt. Ltd. Vilacheri Main Road, Madurai – 625004 from 15.05.2023 to 15.06.2023.

Antony Ananda Prasad
Head of the Department

V. p. b. h.
Staff in Charge



N. Rama Varier Ayurveda Foundation

Biotechnology Research Center Affiliated to Alagappa University

Madurai, Tamil Nadu



INTERNSHIP CERTIFICATE AWARDED TO

Name S. THAH SIN BANU Degree Ist M.SC. (2022 MSCZO 9)


College / University FATIMA COLLEGE - MADURAI

Has undergone training from 15/05/2023 to 14/06/2023 in our ayurvedic pharma industry & research center. During the training he /she has exposed to divisions of ayurvedic industry such as, raw material store, production, tableting, packing, quality control, quality assurance, phytochemical analysis, research & development

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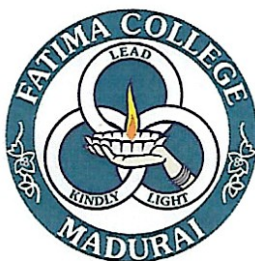



Dr. Suresh Govindan
Research Head


Dr. Ramesh R. Varier
Managing Trustee

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Summer Internship Report Submitted for the award of
Degree of Master of Science in Zoology



Submitted By

K. VARALAKSHMI (2022MSCZ10)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



Dr. R. ARTHUR JAMES
Professor and Chair

Email : james@bdu.ac.in / james.msbd@gmail.com; Ph : (+91) 431-2407072 Extn : 553

CERTIFICATE

This is to certify that the internship titled **"Biochemical profile and bioactive efficacy of seaweeds against human drug resistant pathogens"** was carried out under my supervision by **Ms. K. VARALAKSHMI** (Reg.No:2022MSCZ10), I M.Sc., student from the Department of Zoology, Fatima College (Autonomous), Madurai - 625 018 at the Department of Marine Science, Bharathidasan University, Tiruchirappalli - 620 024 during the period from May 10th to June 9th, 2023 (1 month).

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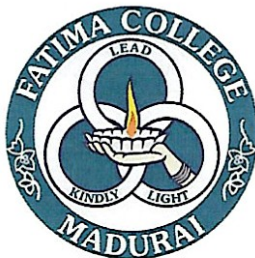



(R. ARTHUR JAMES)

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

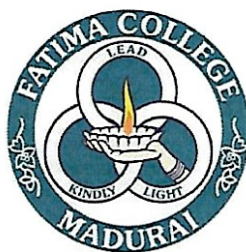
This is a report of Summer Internship Program carried out by **Ms. K. VARALAKSHMI (2022MSCZ10)** in Bharathidasan University, Department of Marine Science, Tiruchirappalli – 620 024 from 10.05.2023 to 10.06.2023.

Anthony Amala Jayasankar
Head of the Department

V. B. Shree
Staff in Charge

ESSENTIAL PARAMETERS FOR PREPARATION OF AYURVEDIC FORMULATIONS

Summer Internship Report Submitted for the award of
Degree of Master of Science in Zoology



Submitted By

G. YOGESHWARI (2022MSCZ11)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023



N. Rama Varier Ayurveda Foundation

Biotechnology Research Center Affiliated to Alagappa University

Madurai, Tamil Nadu



INTERNSHIP CERTIFICATE AWARDED TO


Name GI. YOGIESHWARI Degree Ist M.Sc. (2022MBCZ11)

College / University FATIMA COLLEGE - MADURAI

Has undergone training from 15/05/2023 to 14 /06 /2023 in our ayurvedic pharma industry & research center. During the training he /she has exposed to divisions of ayurvedic industry such as, raw material store, production, tableting, packing, quality control, quality assurance, phytochemical analysis, research & development

He / She was curious and very interactive during the training session




Dr. Suresh Govindan
Research Head

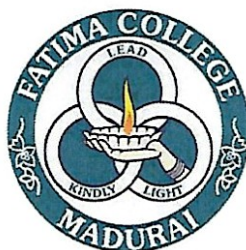


Dr. Ramesh R. Varier
Managing Trustee

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary land, Madurai – 625018.



PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

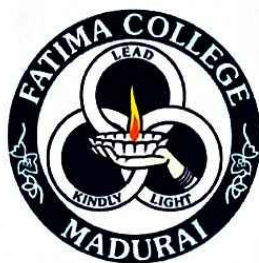
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Head of the Department


Staff in Charge

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Summer Internship Report Submitted for the award of
Degree of Master of Science in Zoology



Submitted By

S. REXLINE SHEEBA (2022MSCZ12)

PG Department OF Zoology

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

Mary Land, Madurai - 625 018

JULY 2023

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' BY NAAC (Cycle - IV)

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PG DEPARTMENT OF ZOOLOGY

Summer Internship Program

This is a report of Summer Internship Program carried out by **Ms. S.REXLINE SHEEBA (2022MSCZ12)** in AVN Ayurveda Formulation Pvt. Ltd. Vilacheri Main Road, Madurai – 625004 from 15.05.2023 to 15.06.2023.

Antony Anula Jayaraman.
Head of the Department

V. P. S. S.
Staff in Charge



N. Rama Varier Ayurveda Foundation

Biotechnology Research Center Affiliated to Alagappa University

Madurai, Tamil Nadu



INTERNSHIP CERTIFICATE AWARDED TO

Name S. REXLINE SHEEBA Degree 1st M.Sc. (2022 MSCX12)


College / University FATIMA COLLEGE - MADURAI

Has undergone training from 15/05/2023 to 14/06/2023 in our ayurvedic pharma industry & research center. During the training he /she has exposed to divisions of ayurvedic industry such as raw material store, production, tableting, packing, quality control, quality assurance, phytochemical analysis, research & development

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He / She was curious and very interactive during the training session




Dr. Suresh Govindan
Research Head


Dr. Ramesh R. Varier
Managing Trustee