

**“EFFECT OF ALLICIN ON EPITHELIAL MESENCHYMAL TRANSITION  
TRANSCRIPTION FACTORS SNAIL AND SLUG EXPRESSION IN A549  
LUNG CANCER CELL LINE”**

THROUGH

**MAHATMA GANDHI MISSION’S SCHOOL OF  
BIOMEDICAL SCIENCES,  
NAVI MUMBAI**



DISSERTATION SUBMITTED TO

**MGM INSTITUTE OF HEALTH SCIENCES,**

**(DEEMED UNIVERSITY)**

IN THE PARTIAL FULFILMENT OF REGULATIONS

FOR THE AWARD OF THE DEGREE OF

**MASTER OF SCIENCE**

**IN**

**MEDICAL BIOTECHNOLOGY**

**2022**

**“EFFECT OF ALLICIN ON EPITHELIAL MESENCHYMAL TRANSITION  
TRANSCRIPTION FACTORS SNAIL AND SLUG EXPRESSION IN A549  
LUNG CANCER CELL LINE”**

BY

**JAIWAR SUJATA BHIMAL**

UNDER THE GUIDANCE OF

**DR. MANSEE THAKUR**

DIRECTOR AND HOD

DEPARTMENT OF MEDICAL BIOTECHNOLOGY

**CO-GUIDED BY**

**DR. NISHANT VYAS**

LAB OF CELLULAR IMMUNOLOGY,

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LOGICAL LIFE SCIENCES PVT.LTD, PUNE

THROUGH

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**2022**

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IS A BONAFIED RESEARCH WORK DONE BY  
JAISWAR SUJATA BHIMAL

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Date: 30/06/2022  
Place: Kamothe, Navi Mumbai.



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**DR. MANSEE THAKUR**

IN PARTIAL FULFILMENT OF REGULATIONS FOR THE AWARD OF THE  
DEGREE

OF

**MASTER OF SCIENCE IN MEDICAL BIOTECHNOLOGY**

OF

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DATE: 30/06/22

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**JAISWAR SUJATA BHIMAL**

FINAL YEAR

M.Sc. MEDICAL BIOTECHNOLOGY

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This is to certify that the dissertation entitled '**EFFECT OF ALLICIN ON EPITHELIAL MESENCHYMAL TRANSITION TRANSCRIPTION FACTORS SNAIL AND SLUG EXPRESSION IN A549 LUNG CANCER CELL LINE**' has been prepared by Ms. JAISWAR SUJATA BHIMAL under my direct supervision and guidance in partial fulfillment of the regulation for the award of the degree of **M.Sc. in Medical Biotechnology**.

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**MS. JAISWAR SUJATA BHIMAL**

**Signature**

**Date:** 30/06/22

**Place:** Kamothe, Navi Mumbai

**“STUDY OF PROLIFERATION PROPERTIES OF CD146+ CELL  
POPULATION IN BREAST CANCER CELL LINE MDAMB231”**

**MAHATMA GANDHI MISSION’S SCHOOL OF BIOMEDICAL SCENICES,**

**NAVI MUMBAI**

**DISSERTATION SUBMITTED TO**



**MGM INSTITUTE OF HEALTH SCIENCES,**

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**2022**

**“STUDY OF PROLIFERATION PROPERTIES OF CD146+ CELL  
POPULATION IN BREAST CANCER CELL LINE MDAMB231”**

**SUBMITTED BY**

**AMISHA KALURAM ABHANG**

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**2022**

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*Abhang*

**AMISHA KALURAM  
ABHANG  
MSC.MEDICAL  
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DATE: 30-6-22  
PLACE: KAMOTHE, NAVI MUMBAI

APPENDIX-'C'

Revised

**CERTIFICATE**

This is to certify that the dissertation entitled "**STUDY OF PROLIFERATION PROPERTIES OF CD146+ AND CELL POPULATION IN BREAST CANCER CELL LINE MDAMB231**" has been prepared by **Ms. Amisha Kaluram Abhang** under my direct supervision and guidance in partial fulfilment of the regulation for the award of the degree of **M.Sc. in Medical Biotechnology**. Her work on the subject has been checked by me from time to time. I am satisfied regarding the authenticity of his observations, clinical material and experimentation in this dissertation and it conforms to the standards of, MGM Institute Of Health Sciences, (Deemed University) Kamothe, Navi Mumbai.

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Date: 30-6-22

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**Dr. Mansee Thakur**  
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**Ms. Amisha Kaluram Abhang**

**COMPARATIVE ANALYSIS OF GROWTH FACTOR SECRETION PROFILE BETWEEN  
CD146+ AND CD146- CELL POPULATION OF ENDOMETRIUM CANCER CELL LINE  
ISHIKAWA USING MULTIPLEX CYTOMETRIC BEAD ARRAY FLOWCYTOMETRY.**

**THROUGH**

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**(2021-22)**

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BY

**SHUBHANGI SURESHCHANDRA DUBEY**  
UNDER THE GUIDANCE OF

**Dr. Mansee Thakur**  
**Director and HOD**  
**Department of Medical Biotechnology**

CO-GUIDED BY

**Dr. Nishant Vyas**  
**Lab of cellular Immunology,**  
**Research Head**  
**Logical Life Sciences Pvt. Ltd, Pune**

THROUGH

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IS A BONAFIDE RESEARCH WORK DONE BY

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UNDER MY DIRECT SUPERVISION AND GUIDANCE IN PARTIAL FULFILLMENT OF THE REGULATIONS FOR THE AWARD OF THE DEGREE OF **MASTER OF SCIENCE IN MEDICAL BIOTECHNOLOGY COURSE.**

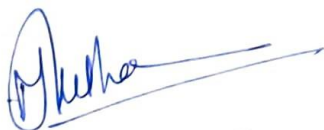
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**Director**  
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SHUBHANGI SURESHCHANDRA DUBEY

Date:

Place:

FINAL YEAR M.Sc MEDICAL

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Ms. Shubhangi Sureshchandra

Dubey



Date:

Place:

**DIETARY PATTERN OF PATIENTS DIAGNOSED WITH UROLITHIASIS IN A TERTIARY  
CARE HOSPITAL  
THROUGH  
MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCENICES,  
NAVI MUMBAI  
DISSERTATION SUBMITTED TO**



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**IN THE PARTIAL FULFILMENT OF REGULATIONS**

**FOR THE AWARD OF THE DEGREE OF**

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**IN**

**CLINICAL NUTRITION**

**(2022)**

**DIETARY PATTERN OF PATIENTS DIAGNOSED WITH UROLITHIASIS IN A TERTIARY**

**CARE HOSPITAL**

**BY**

**NAMRAH SAYED**

**UNDER THE GUIDANCE OF**

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**KAMOTHE, NAVI MUMBAI**

**IN THE PARTIAL FULFILMENT OF REGULATIONS**

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**(2022)**



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UNDER MY DIRECT SUPERVISION AND GUIDANCE IN PARTIAL FULFILMENT OF THE  
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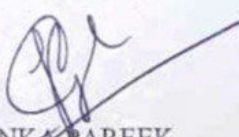
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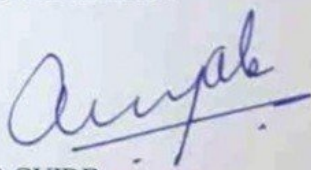
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**IMPACT OF NUTRITION EDUCATION INTERVENTION ON THE  
NUTRITIONAL STATUS AND QUALITY OF LIFE OF HEMODIALYSIS  
PATIENTS IN A TERTIARY CARE HOSPITAL**

**THROUGH**

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**DR. ADITYA NAYAK**

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**NUTRITIONAL ADEQUACY IN CRITICALLY ILL MEDICAL PATIENTS IN INTENSIVE  
CARE UNIT (ICU) OF TERTIARY CARE HOSPITAL**

**THROUGH**

**MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCIENCES,**

**NAVI MUMBAI**

**DISSERTATION SUBMITTED TO**



**MGM INSTITUTE OF HEALTH SCIENCES,**

**(DEEMED UNIVERSITY)**

**IN THE PARTIAL FULFILMENT OF REGULATIONS**

**FOR THE AWARD OF THE DEGREE OF**

**MASTER OF SCIENCE**

**IN**

**CLINICAL NUTRITION**

**2022**

**NUTRITIONAL ADEQUACY IN CRITICALLY ILL MEDICAL PATIENTS IN INTENSIVE  
CARE UNIT (ICU) OF TERTIARY CARE HOSPITAL**

**BY**

**AKSHITA JAIN**

**UNDER THE GUIDANCE OF**

**DR. ADITYA NAYAK  
ASSISTANT PROFESSOR  
DEPARTMENT OF GENERAL MEDICINE**

**DR. PRIYANKA PAREEK, HOD  
DEPARTMENT OF CLINICAL NUTRITION**

**THROUGH**

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**IN THE PARTIAL FULFILMENT OF REGULATIONS**

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**2022**

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IS A BONAFIDE RESEARCH WORK DONE BY

**AKSHITA JAIN**

UNDER MY DIRECT SUPERVISION AND GUIDANCE IN PARTIAL FULFILMENT OF THE  
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**CLINICAL NUTRITION**

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**DR. PRIYANKA PAREEK**

(CO-GUIDE)

Date: 14/7/22

Place: Kamothé, Navi Mumbai

**FEEDING PRACTICES AND NUTRITIONAL STATUS OF 6-24 MONTHS  
CHILDREN.**

**THROUGH**

**MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCIENCES,  
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**DISSERTATION SUBMITTED TO**



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**IN**

**CLINICAL NUTRITION**

**2022**



**FEEDING PRACTICES AND NUTRITIONAL STATUS OF 6-24 MONTHS CHILDREN.**

BY

**DEEPALI SHASHIKANT ANARE**

UNDER THE GUIDANCE

**DR. VIJAY N. KAMALE**

**Professor and Head,**

**Department of Paediatrics**

**MGM Medical College, Navi Mumbai**

CO-GUIDED BY

**Dr. PRIYANKA PAREEK**

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**DEEPALI SHASHIKANT ANARE**

UNDER MY DIRECT SUPERVISION AND GUIDANCE IN PARTIAL FULFILLMENT OF THE REGULATIONS FOR THE AWARD OF THE DEGREE OF **MASTER OF SCIENCE IN CLINICAL NUTRITION COURSE.**

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**FRUIT CONSUMPTION PATTERN OF TYPE 2 DIABETIC PATIENTS**  
**THROUGH**  
**MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCIENCES,**  
**NAVI MUMBAI**



**DESSERTATION SUBMITTED TO**  
**MGM INSTITUTE OF HEALTH SCIENCES,**  
**(DEEMED UNIVERSITY)**  
**IN PARTIAL FULFILMENT OF REGULATIONS**  
**FOR THE AWARD OF THE DEGREE OF**  
**MASTER OF SCIENCE**  
**IN**  
**CLINICAL NUTRITION**  
**(2021-22)**

**FRUIT CONSUMPTION PATTERN OF TYPE 2 DIABETIC PATIENTS**

**BY**

**CHETNA RAJESH SIKHWAL**

UNDER GUIDANCE OF

DR PRIYANKA PARREK

Department of Clinical Nutrition

THROUGH

**MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCIENCES,**

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**KAMOTHE, NAVI MUMBAI**

**IN PARTIAL FULFILMENT OF REGULATIONS**

**FOR THE AWARD OF THE DEGREE OF**

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**IN**

**CLINICAL NUTRITION**

**(2021-22)**

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IS A BONAFIDE RESEARCH WORK DONE BY

**MS. CHETNA RAJESH SIKHWAL**

UNDER MY DIRECT SUPERVISION AND GUIDANCE IN PARTIAL FULFILMENT  
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Date: 14/07/2022

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Dept of Clinical Nutrition

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**“COMPARISON OF NUTRIENT INTAKE IN COLLEGE GOING FEMALES WITH  
AND WITHOUT MENSTRUAL COMPLAINTS”**

**THROUGH**

**MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL**

**SCIENCES,**

**NAVI MUMBAI**

**DISSERTATION SUBMITTED TO**



**MGM INSTITUTE OF HEALTH SCIENCES,**

**(DEEMED UNIVERSITY)**

**IN THE PARTIAL FULFILMENT OF REGULATIONS**

**FOR THE AWARD OF THE DEGREE OF**

**MASTER OF SCIENCE**

**IN**

**CLINICAL NUTRITION**



**2022**

**“COMPARISON OF NUTRIENT INTAKE IN COLLEGE GOING FEMALES WITH AND WITHOUT MENSTRUAL COMPLAINTS”**

BY

**SHRADDHA RAMESH KIRTANE**

UNDER THE GUIDANCE

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**MGM INSTITUTE OF HEALTH SCIENCES,**

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**KAMOTHE, NAVI MUMBAI**

IN THE PARTIAL FULFILMENT OF REGULATIONS

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**MASTER OF SCIENCE**

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**CLINICAL NUTRITION**

**2022**

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DECLARATION

**CERTIFICATE**

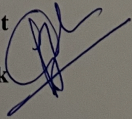
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Date: 14/07/22

Place: Kamothe, Navi Mumbai.

Head of Department

Dr. Priyanka Pareek

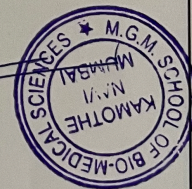


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Director

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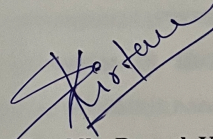




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Date: 14/07/22



Shraddha Ramesh Kirtane

Place: Kamothe, Navi Mumbai

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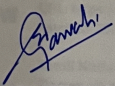
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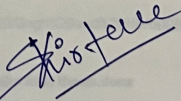


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**“ASSOCIATION BETWEEN WATER CONSUMPTION AND URINARY pH IN  
WOMEN SUFFERING FROM URINARY TRACT INFECTIONS”**

BY

**ANUSHREE ANIL BORDE**

UNDER THE GUIDANCE OF

**DR. SANTOSH GAWALI**

Professor and Head,  
Department of Biochemistry  
MGM Medical College, Navi Mumbai

CO-GUIDED BY

**Dr. PRIYANKA PAREEK**

Assistant Professor and HOD  
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THROUGH

MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCIENCES,

NAVI MUMBAI



DISSERTATION SUBMITTED TO

**MGM INSTITUTE OF HEALTH SCIENCES,**

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IN THE PARTIAL FULFILMENT OF REGULATIONS

FOR THE AWARD OF THE DEGREE OF

**MASTER OF SCIENCE**

IN

**CLINICAL NUTRITION**

**2022**



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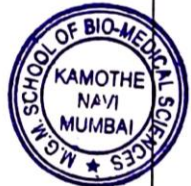


Director

Dr. Mansee Thakur

Director

MGM School of Biomedical Science  
Kamothe, Navi Mumbai



## DECLARATION

I here by declare that the dissertation entitled "**ASSOCIATION BETWEEN WATER CONSUMPTION AND URINARY PH IN WOMEN SUFFERING FROM URINARY TRACT INFECTIONS.**" has been prepared by me under direct guidance and supervision of **Dr. Santosh Gawali** in partial fulfilment of regulations for the award of the degree of master of science in clinical nutrition of **MGM Institute of Health Sciences (Deemed University), Kamothe, Navi Mumbai** and has not been submitted previously for the award of any diploma or degree from any university.

Date: 14/7/22

Place: Kamothe, Navi Mumbai



Anushree Anil Borde


Final Year MSc Clinical Nutrition.

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**Dr. SANTOSH GAWALI**

  
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**Ms. Anushree Anil Borde**

  
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**Date:** 14/7/22

**Place:** Navi Mumbai.

**Professor & Head**  
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**MGM Medical College,**  
**Kamothé, Navi Mumbai**

V

**ASSESSMENT OF DIETARY KNOWLEDGE ATTITUDE PRACTICE AND BEHAVIOR OF  
TYPE 2 DIABETES**

THROUGH

**MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCENICES,**



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IN

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**(2020-2021)**

**ASSESSMENT OF DIETARY KNOWLEDGE ATTITUDE PRACTICE AND BEHAVIOR  
OF TYPE 2 DIABETES**

**KIRTHNA SRINATH**

UNDER THE GUIDANCE OF

**DR. PRIYANKA PAREEK**

THROUGH

**MAHATMA GANDHI MISSION'S SCHOOL OF BIOMEDICAL SCIENCES,**

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**(2020-21)**