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GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
NUCLEAR AGRICULTURE & BIOTECHNOLOGY DIVISION

CERTIFICATE

This is to certify that Ms. Aishwarya Ramakrishnan, student of M.Sc. part II Biotechnology at SIES College of Arts, Science and Commerce, Mumbai has carried out the dissertation entitled "**Morpho-physiological, molecular and bioinformatic analysis in an elongated leaf mutant of chickpea (*Cicer arietinum* L.)**" at Pulse Improvement Section, Nuclear Agriculture and Biotechnology Division, Bhabha Atomic Research Centre. This dissertation was carried out under my guidance and is in partial fulfilment of the requirement for the Master's degree in Biotechnology as prescribed by SIES College of Arts, Science and Commerce, Mumbai for the year 2022-23.

This dissertation report represents the experiments and comprehensive literature survey carried out by her during the period of October 2023 to February 2023.

Dr. Archana Joshi Saha

Scientific officer 'G'

200423

दूरभाष
TELEPHONE :
तार : बार्क मुंबई, चेम्बुर
TELEGRAMS : BARC-MUMBAI, CHEMBUR
फेक्स संख्या : ९१-२२-२५५० ५१५१
FAX NUMBER : 91-22 - 2550 5151



भारत सरकार
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भाबा परमाणु अनुसंधान केन्द्र
BHABHA ATOMIC RESEARCH CENTRE

ट्रॉम्बे
मुंबई - ४०० ०८५
TROMBAY,
MUMBAI-400 085.

This is to certify that **Mr. Amaan Shaikh**, student of M.Sc. in Biotechnology degree, studying in SIES College of Arts, Science and Commerce, Mumbai, Maharashtra has successfully completed a five month project (from October 6, 2022 to February 28, 2023) titled "**In Silico Domain Analysis of Alternatively Spliced Genes Regulated By RNase HI/R-Loops And Development Of Cell-profiler Pipeline**" under the guidance of **Dr. Sheetal Uppal** at the Molecular Genetics Section of Molecular Biology Division for partial fulfillment of his M.Sc. Degree.

Sheetal Uppal
25/1/23
Dr. Sheetal Uppal
Scientific Officer
Molecular Biology Division
Bhabha Atomic Research Centre
भारत सरकार
भाबा परमाणु अनुसंधान केन्द्र
ट्रॉम्बे
मुंबई - ४०० ०८५

Homi Bhabha National Institute (HBNI)
Bhabha Atomic Research Centre (BARC)



टाटा स्मारक केंद्र

TATA MEMORIAL CENTRE

24469

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& EDUCATION IN CANCER

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CLINICAL RESEARCH CENTRE

कैंसर एपिडिमियोलॉजी केंद्र
CENTRE FOR CANCER EPIDEMIOLOGY

CERTIFICATE

This is to certify that **Ms. Ayesha Ravindra Shedge**, MSc Part-II Biotechnology, SIES College has successfully completed the dissertation work entitled, "Assessing GJIC Protein Connexin-26 In Human Cancer Cell Lines" from **CRI Laboratory-1, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Navi Mumbai**, under the guidance and supervision of **Dr. Ujjwala M. Warawdekar**, during the academic session spanning **2022-2023**.

Ujjwala M. Warawdekar

Dr. Ujjwala M. Warawdekar

Scientific Officer 'G'
CRI Lab 1; KS 326 A
Cancer Research Institute, (ACTREC)
Tata Memorial Centre (TMC)
Sector 22 Kharghar
Navi Mumbai 410210

Tel: +91 22 2740 5000 Ext:5418

Fax: +91 22 2740 5085

Email: uwarawdekar@actrec.gov.in

सेक्टर २२, खारघर,
नवी मुंबई - ४१० २१०. भारत.
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+९१-२२-६८७३ ५०००
फैक्स : +९१-२२-२७४० ५०८५

जल्द इलाज होने पर कैंसर ठीक हो सकता है ।
Cancer is curable, if detected early.

E-mail : mail@actrec.gov.in
Website: www.actrec.gov.in

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Navi Mumbai - 410 210. INDIA
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Bhabha Atomic Research Centre

भाभापरमाणुअनुसंधानकेंद्र

Trombay,

ट्रॉम्बे,

Mumbai-400 085

मुंबई-400 085



सत्यमेव जयते

भारतसरकार

GOVERNMENT OF INDIA

CERTIFICATE

I certify that the research work presented in this thesis titled “**Cloning, Heterologous Expression and Purification of CikA a Sensor Kinase from *Anabaena* PCC 7120**” has been carried out by **Ms. Jemema Agnes Tripena Raj, Roll No SMBT2223018** under my supervision and this is her bonafide work. The research work is original and has not been submitted for any other degree of this or any other institute. Further, she was a regular student and has worked under my guidance as a full-time student at “**Molecular Biology Division, Bhabha Atomic Research Centre, Mumbai**” until the submission of the thesis to the SIES College of Arts, Science and Commerce.

Place: Mumbai

Date: 24/04/2023

Dr. Dhiman Chakravarty

Scientific Officer-E,

Molecular Biology Division, BARC.

Prof. Anand Ballal

Scientific Officer-H

Head,

Biomolecular Damage & Repair Section,

Molecular Biology Division, BARC.



टाटा स्मारक केन्द्र
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CERTIFICATE

This is to certify that **Mr. Onkar Haripant Karajgikar**, MSc Part-II Biotechnology, SIES College of Arts, Science, and Commerce (Autonomous) has successfully completed the dissertation work entitled, "**Destabilization of mutant p53 by deubiquitinase inhibitor WP1130 in cancer cell lines.**" from Teni Lab, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Navi Mumbai, under the guidance and supervision of **Dr. Tanuja Teni**, Principal Investigator, Teni Lab, during the academic session of 2022-2023

Guide Signature

Dr. Tanuja Teni

Principal Investigator

Teni Lab

Date: 26.04.2023

Place: Navi Mumbai

खारघर, नवी मुंबई - ४१० २१०, भारत.
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फैक्स : +९१-२२-२७४० ५०८५

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जल्द इलाज होने पर कैंसर ठीक हो सकता है ।

E-mail : mail@actrec.gov.in
Website : www.actrec.gov.in

Cancer is curable, if detected early.

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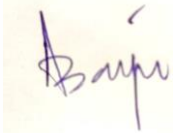
This is to certify that Ms. Anisha Vinay Bhende, MSc Part-2, Biotechnology, SIES College, have satisfactorily completed the dissertation work at LifeSenz Cancer Research Laboratory entitled “Improving therapeutic efficacy utilising combination therapy approach in an *in vitro* pancreatic cancer model” for the partial fulfilment of the Master’s degree in Biotechnology as prescribed by the University of Mumbai during the academic year 2022 – 2023.

This dissertation represents an independent work carried out by her.

Sincerely,

Dt: 31-03-2023

Mumbai, India



Arindam Banerjee, PhD

CEO and Director Scientific Perspective Towards a New Hope

Lifesenz Cancer Research Labs Pvt Ltd

Mumbai 400080

Tel: +91-22 2591 2747

Email: arindam.banerjee@lifesenz.co.in

www.lifesenz.co.in

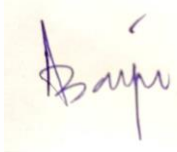
CERTIFICATE

This is to certify that Mr. Omkar Sundeep Wakale, MSc Part-2, Biotechnology, SIES College, have satisfactorily completed the dissertation work at LifeSenz Cancer Research Laboratory entitled "Development and functional characterization of an in vitro acquired paclitaxel resistance breast cancer model" for the partial fulfilment of the Master's degree in Biotechnology as prescribed by the University of Mumbai during the academic year 2022 – 2023. This dissertation represents an independent work carried out by him.

Sincerely,

Dt: 24-04-2023

Mumbai, India



LifeSenz

Arindam Banerjee, PhD
CEO and Director
LifeSenz Cancer Research Labs Pvt Ltd
Mumbai 400080
Tel: +91-22 2591 2747
Email: arindam.banerjee@lifesenz.co.in
www.lifesenz.co.in



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Acharya Donde Marg, Parel,
Mumbai, Maharashtra, India, 400012
Website: <http://www.wadiahospital.org/BIW10C.aspx>
Tel: +91-22-24197200
Email: mcolgen@wadiahospital.org

BAI JERBAI WADIA HOSPITAL FOR CHILDREN

CERTIFICATE

This is to certify that the dissertation entitled "Molecular Diagnosis of MTB Detection and RIF resistance in Lymph node tissue of paediatric Population in tertiary care hospital" is a bonafide work done by Ms. Gunjan Rajesh Gujrati of SIES Autonomous College, Mumbai under the direct guidance of Dr. Sonal Ghogale and Co-guidance of Mr. Lalit Samant as a partial fulfillment of regulations for the award of the degree of M.Sc. Part II Biotechnology. Her work has been checked by me from time to time. I am satisfied regarding the authenticity of her observations, methodology and result in this dissertation.

We have great pleasure in forwarding it to SIES Autonomous College, Mumbai.

Date:

Place: Parel

Guide

Dr. Sonal Ghogale
Doctor of Medicine in Microbiology
Consultant Microbiologist
Bai Jerbai Wadia Hospital for Children

Co-Guide

Mr. Lalit R. Samant
Research Officer
Molecular Genetics Research lab
Bai Jerbai Wadia Hospital for Children



सीएसआईआर-राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान
CSIR-National Environmental Engineering Research Institute



(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद / Council of Scientific & Industrial Research)

Mumbai Zonal Center

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Website : www.neeri.res.in

E-mail : mzl@neeri.res.in

E-mail : neerimumbai@neeri.res.in

Certificate

Date: 25-04-2023

This is to certify that Ms. Kajal Chandrajit Yadav, pursuing M.Sc. Biotechnology from S.I.E.S. College of Arts, Science and Commerce, Sion (W), Mumbai has carried out project entitled, "Assessment of Microplastics and other contaminants along the beaches of Mumbai City" at CSIR-NEERI, Mumbai Zonal Centre under the supervision and guidance of Dr. (Mrs.) Shalini A. Tandon, Principal Scientist during 1st November 2022 to 15th February 2023. This was the requirement in the partial fulfilment of the degree.

Shalini A. Tandon
25/4/23

Dr. Shalini A. Tandon

(Principal Scientist)

Guide of the student

N. Goyal
25/4/23

Dr. Nitin Goyal

(Principal Scientist)

Head & Scientist Incharge

MZC, CSIR-NEERI



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INDIAN COUNCIL OF
MEDICAL RESEARCH

NIIH
NATIONAL INSTITUTE OF
IMMUNOHAEMATOLOGY



आई सी एम आर - राष्ट्रीय प्रतिरक्षा रुधिर विज्ञान संस्थान
स्वास्थ्य अनुसंधान विभाग, स्वास्थ्य और परिवार
कल्याण मंत्रालय, भारत सरकार

ICMR-National Institute of Immunohaematology
Department of Health Research, Ministry of Health
and Family Welfare, Government of India.

This is to certify that the dissertation entitled "**Molecular Characterization of Chronic HBV cases attending tertiary care centre in Mumbai**" submitted to S.I.E.S. College of Arts, Science and Commerce (Autonomous), towards partial fulfilment of the degree of **M.Sc. (Biotechnology)** by paper for the academic year 2022-2023, is original and independent work done by **Ms. Kunali Ajay Ambavale** from December 2022 to April 2023, under my guidance at ICMR-National Institute of Immunohaematology, Mumbai.

Dr. Anindita Banerjee
Scientist 'E' & Head,
Transfusion Transmitted Disease Department,
ICMR-NIIH

Dr. Manisha Madkaikar
Director,
ICMR-NIIH



निदेशक / Director
आईसीएमआर-राष्ट्रीय प्रतिरक्षा रुधिर विज्ञान संस्थान
ICMR - National Institute of Immunohaematology
13वीं मंजिल, नई बहुमंजिली इमारत, के इ एम अस्पताल परिसर,
परेल, मुंबई-४०० ०१२.
13th Floor, New Multistoreyed Building, KEM Hospital Campus,
Parel, Mumbai - 400 012.



GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
FOOD TECHNOLOGY DIVISION



CERTIFICATE

This is to certify that **Ms. Mahek Jatin Parmar**, a post-graduate student from S.I.E.S. College of Arts, Science and Commerce, Sion, Mumbai has worked in Food Technology Division on an ongoing project titled “**Applications of radiation processed psyllium in developing high fibre functional foods and its biodegradation**” from 10th October, 2022 to 28th February, 2023. During this period the student has worked on different aspects of project in the area of Food science and Technology and has been found to be conscientious and sincere. As the student has worked on an ongoing project of BARC, no part of this project work should be published by the student or his/her institute either in journal or in conference/symposium or any other platform.

(Dr. S N Jamdar)
Guide

Dr. S. Gautam
Head,
Food Technology Division,
BARC, Mumbai

28.2.23

डॉ. एस. गौतम / Dr. S. Gautam
अध्यक्ष, खाद्य प्रौद्योगिकी विभाग / Head, Food Technology Division
जैव-विज्ञान वर्ग / Bio-Science Group
भाभा परमाणु अनुसंधान केंद्र / Bhabha Atomic Research Centre
भारत सरकार / Government of India
ट्रॉम्बे, मुंबई - 400 085 / Trombay, Mumbai - 400 085

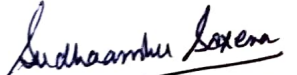


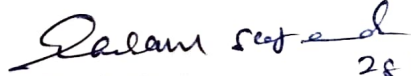
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BHABHA ATOMIC RESEARCH CENTRE
FOOD TECHNOLOGY DIVISION



CERTIFICATE

This is to certify that **Ms. Neha Appani**, a post-graduate student from S.I.E.S. College, Sion, Mumbai has worked in Food Technology Division on an ongoing project titled **“Shelf-Life Extension of Pointed Gourd using a Combination Treatment including Gamma Radiation Processing”** from 10th October, 2022 to 28th February, 2023. During this period the student has worked on different aspects of project in the area of Food science and Technology and has been found to be conscientious and sincere. As the student has worked on an ongoing project of BARC, no part of this projectwork should be published by the student or his/her institute either in journal or in conference/symposium or any other platform.


(Dr. Sudhaanshu Saxena)
Guide


Dr. S. Gautam
Head,
Food Technology Division,
BARC, Mumbai

डॉ. एस. गौतम / Dr. S. Gautam
अध्यक्ष, खाद्य प्रौद्योगिकी प्रभाग / Head, Food Technology Division
जैव-विज्ञान वर्ग / Bio-Science Group
भाभा परमाणु अनुसंधान केंद्र / Bhabha Atomic Research Centre
भारत सरकार / Government of India
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INDIAN COUNCIL OF MEDICAL RESEARCH
NATIONAL INSTITUTE FOR RESEARCH
IN REPRODUCTIVE AND CHILD HEALTH



आई सी एम आर - राष्ट्रीय प्रजनन एवं
बाल स्वास्थ्य अनुसंधान संस्थान, मुंबई
स्वास्थ्य अनुसंधान विभाग, स्वास्थ्य और परिवार
कल्याण मंत्रालय, भारत सरकार

ICMR - National Institute for Research in
Reproductive and Child Health, Mumbai
Department of Health Research, Ministry of Health
and Family Welfare, Government of India

CERTIFICATE

This is to certify that Miss. Niharika Milind Rahate M.Sc. (Biotechnology) student from SIES college of Arts, Science and Commerce, Sion, University of Mumbai carried out the project entitled "Expression of complement protein in Polycystic Ovary Syndrome (PCOS)" under the supervision of Dr. Shaini M Joseph at Genetic Research Center, National Institute for Research in Reproductive and Child Health (NIRRCH) from 15.10.2022 to 15.03.2023. This work was conceived and executed at NIRRCH and has not been reported in any specific communication earlier. No part of the data included herein would be published in any form without prior permission of the Dr. Shaini M Joseph, Scientist C, Genetic Research Center, NIRRCH, Parel, Mumbai.

Candidate: Miss. Niharika Milind Rahate

Acknowledged by

Project guide
Dr. Shaini Joseph
Scientist 'C'
Genetic Research Centre
ICMR- NIRRCH

Dr. Shailesh Pande
Scientist 'D' and Head
Genetic Research Center
ICMR- NIRRCH

Dr. Tara Menon
Head of Department
Department of Biotechnology
SIES college, Sion
CO-ORDINATOR
DEPARTMENT OF BIOTECHNOLOGY
SIES COLLEGE OF ARTS, SCIENCE & COMMERCE
Sion (W), Mumbai - 400 022.



**Government of India
BHABHA ATOMIC RESEARCH CENTRE
NUCLEAR AGRICULTURE & BIOTECHNOLOGY DIVISION
TROMBAY, MUMBAI- 400 085, INDIA**

Ref: NABTD/2023

24-04-2023

CERTIFICATE

This is to certify that Ms. Nikita Mishra a student of Master of Science in Biotechnology, S.I.E.S College, Sion, Mumbai, Maharashtra, has undergone training for five months in research work in Mutation Breeding Section-II, Nuclear Agriculture & Biotechnology Division, Bhabha Atomic Research Centre, Mumbai. She worked on “**Screening of wheat mutants for Nitrogen Use Efficiency and understanding the effect of nitrogen on seedling traits**”. This was the requirement in partial fulfilment of the degree. She has also participated in other ongoing laboratory activities during the training period. She is intelligent, hard working and sincere. She is also a good learner and has interest in research.

We wish her good luck and bright future.

**DR. SUMAN BAKSHI, PH.D.
SCIENTIFIC OFFICER/F
MUTATION BREEDING SECTION-II
NUCLEAR AGRICULTURE & BIOTECHNOLOGY DIVISION
BHABHA ATOMIC RESEARCH CENTRE, TROMBAY, MUMBAI-400085.**



SIES

College of Arts,
Science & Commerce
(Autonomous)

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CERTIFICATE

This is to certify that Ms. Priyamvada Nath, MSc Part-II, Biotechnology, SIES College, has satisfactorily completed the dissertation work entitled "The investigation of potential crude oil degraders isolated from Dockyard seawater and Petroleum refinery sludge" for the partial fulfilment of the Master's degree in Biotechnology as prescribed by S.I.E.S College of Arts, Science and Commerce (Autonomous) during the academic year 2022-2023.

This dissertation represents an independent work carried out by her.

Tara Menon

Dr. Tara Menon,

Vice Principal & Head,

Department of Biotechnology,

CO-ORDINATOR

DEPARTMENT OF BIOTECHNOLOGY
SIES COLLEGE OF ARTS, SCIENCE & COMMERCE

Sign (W), Mumbai - 400 022.

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11/04/23

80
27/10/23

Signature of Examiner

Uma Shankar

Dr. Uma Shankar,

Principal



290423

[Handwritten signature]



हाफकिन प्रशिक्षण, संशोधन व चाचणी संस्था

महाराष्ट्र शासन अंतर्गत स्वायत्त संशोधन संस्था १९६० अधिनियमानुसार मराठी वृत्त संस्था
भारत सरकार, विज्ञान व औद्योगिक संशोधन, मान्यताप्राप्त "वैज्ञानिक आणि औद्योगिक संशोधन संस्था"

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An Autonomous Grant in aid Institute of Govt. of Maharashtra Registered under Societies Registration Act 1860
Recognised as "Scientific & Industrial Research Organisation" (SIRIO) by Govt. of India, Ministry of Science & Technology



26-04-23

Certificate

This is to certify that the research work presented in this thesis titled "*In-vitro* wound healing activity of different extracts of *Curcuma caesia* rox b." has been carried out by Ms. Roshni Ravindran Kundanagathu under the guidance of Dr. Shashikant Vaidya this is her bonafide work. The research work is original and has not been submitted for any other degree of this or any other university. Further, she was regular and has worked as a full time student at Department of Clinical Pathology, Haffkine Institute for Training, Research and Testing until the submission of the thesis.

SPV:dh

Guide
Haffkine Institute

Atmukh

Head, Dept. of Clinical Pathology
Haffkine Institute

A. B. Bhat

Director
Haffkine Institute

Date: 28.02.2023

HI/TRG/STRIP/B1/-2022-23/09

: आचार्य दोंडे मार्ग, परळ, मुंबई - ४०० ०१२. दूरध्वनी क्र. ०२२-२४१६०९४७, २४१६०९६१, २४१६०९६२, फॅक्स - ०२२-२४१६१७८७

Address : Acharya Donde Marg, Parel, Mumbai - 400 012. Tel: 022 - 24160947, 24160961, 24160962. Fax : 022 - 24161787

email : haffkineinstitute@gmail.com, info@haffkineinstitute.org, website: www.haffkineinstitute.org



**Government of India
Bhabha Atomic Research Centre
Nuclear Agriculture and Biotechnology Division**

NABTD/2023/ P 102935

Date: 27th July, 2023

CERTIFICATE

This is to certify that **Ms. SAYALI AVADHUT JOSHI** a MSc. Student of the Department of Biotechnology, S.I.E.S. COLLEGE OF ARTS, SCIENCE AND COMMERCE (AUTONOMOUS), Mumbai, Maharashtra has worked on '**MUTAGENIC SENSITIVITY STUDY AND ASSESSMENT OF LEAF MORPHOLOGICAL AND MOLECULAR DIVERSITY IN MUSTARD**' as a part of M.Sc. degree during October 1st 2022 to February 28, 2023 in the Nuclear Agriculture and Biotechnology Division, Bhabha Atomic Research Centre, Mumbai. She majorly worked with molecular biology techniques (gDNA extraction, PCR & gel electrophoresis), flow cytometry, mutagenic sensitivity assessment and plant morphological diversity assessment. Along with that she also got hands on experience in the field of bioinformatics (gene & protein sequence analysis) & statistics. I found her scholastic, hardworking and sincere.

Archana Kumari

**Dr. Archana N. Rai
Scientific Officer F
Mutation Breeding Section II**



GOVERNMENT OF INDIA
BHABHA ATOMIC RESEARCH CENTRE
FOOD TECHNOLOGY DIVISION



CERTIFICATE

This is to certify that **Ms. Sharanya Shankar**, a post-graduate student from S.I.E.S College, Sion, Mumbai has worked in Food Technology Division on an ongoing project titled “**Study on Health Protective Antimutagenic Effect of Sweet Corn Kernel**” from 10th Oct. 2022 to 28th Feb. 2023. During this period the student has worked on different aspects of project in the area of functional properties of food and has been found to be conscientious and sincere. As the student has worked on an ongoing project of BARC, no part of this project work should be published by the student or his/her institute either in journal or in conference/symposium or any other platform.

Sanjeev Kumar

(**Dr. Sanjeev Kumar**)
Guide

Dr. S. Gautam 28/2/23

Dr. S. Gautam
Head,
Food Technology Division,
BARC, Mumbai

डॉ. एस. गौतम / **Dr. S. Gautam**
अध्यक्ष, खाद्य प्रौद्योगिकी प्रभाग / Head, Food Technology Division
जैव-विज्ञान वर्ग / Bio-Science Group
भाभा परमाणु अनुसंधान केंद्र / Bhabha Atomic Research Centre
भारत सरकार / Government of India
ट्रॉम्बे, मुंबई - 400 085 / Trombay, Mumbai - 400 085



Government of India
Bhabha Atomic Research Centre
Molecular Biology Division

Ref: BARC/MBD/ 2023/I/48754

Date: 26-04-2023

CERTIFICATE

This is to certify that Ms. Shweta R. Vishwakarma, M. Sc. Biotechnology student from Department of Biotechnology, SIES College of Arts, Science and Commerce (Autonomous), Sion, Mumbai, Maharashtra, India, has completed a project entitled "Cloning, Heterologous Expression and Analysis of Site-Directed Mutants of Rice CuZn Superoxide Dismutase" at Molecular Biology Division, Bhabha Atomic Research Centre, Mumbai, Maharashtra, under my guidance, 06th October 2022 to 28th February 2023.

Ajay Saini
26/4/2023

Dr. Ajay Saini
Scientific Officer 'G'
MBD, BARC, Mumbai

Hema Rajaram 26/4/2023

Dr. Hema Rajaram
Head, Molecular Biology Division
Bhabha Atomic Research Centre
Mumbai, MH-400085
आण्विक जैविक प्रभाग / MOLECULAR BIOLOGY DIVISION



टाटा स्मारक केन्द्र
TATA MEMORIAL CENTRE

कैंसर उपचार, अनुसंधान एवं शिक्षा का प्रगत केन्द्र
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& EDUCATION IN CANCER

- CANCER RESEARCH INSTITUTE
- CLINICAL RESEARCH CENTRE
- CENTRE FOR CANCER EPIDEMIOLOGY

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69723

Certificate from Guide

Dr. Sharath Chandra Arandkar
Principal Investigator, Tumor-microenvironment Lab
Assistant Professor, Homi Bhabha National Institute
Tata Memorial Centre-ACTREC

Date: 26 April 2023

TO WHOM IT MAY CONCERN

This is to certify that Ms. Siddhi Udaykumar Bute from the Second year of her M.Sc. Biotechnology has successfully completed the work on "Validation of transient and stable knockdown of IGFBP5, IGFBP6 and IGFBP7 in cancer-associated fibroblasts" in partial fulfilment of Master of Science in Biotechnology from October 2022 to April 2023 at the Advanced Centre for Treatment, Research, and Education in Cancer, Tata Memorial Centre under the guidance of Dr. Sharath Chandra Arandkar. No part of this work will be published in whatsoever form in any journals or online, without proper consent from Dr. Sharath Chandra Arandkar, under whose guidance this work was carried out.

Thanking you,

Sincerely,

(Dr. Sharath Chandra Arandkar)

Advanced centre for Treatment, Research and Education in Cancer, Tata Memorial Centre

Email: sarandkar@actrec.gov.in

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फैक्स : +९१-२२-२७४० ५०८५

जल्द इलाज होने पर कैंसर ठीक हो सकता है ।

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Website : www.actrec.gov.in

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Cancer is curable, if detected early.



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CLINICAL RESEARCH CENTRE

कैंसर एपिडिमियोलॉजी केंद्र

CENTRE FOR CANCER EPIDEMIOLOGY

CERTIFICATE

This is to certify that Ms. Zoha Iraj Ahmed Hublikar has satisfactorily completed her dissertation under the guidance of Dr. Rajiv Sarin [MD, DNB, FRCR (Clinical Oncology)], In-Charge Cancer Genetics Unit, ACTREC, Kharghar. The research work presented in dissertation title "Next Generation sequencing based targeted Germline analysis of suspected hereditary cancer cases in a tertiary cancer Centre" has been carried out by Ms. Zoha Iraj Ahmed Hublikar in Cancer Genetics and Genomics Laboratory, TMC ACTREC. Further, she has finished her tasks with satisfactory performance and she was regular and sincere while working under my guidance at ACTREC, TMC, Navi Mumbai from 01.11.2022 till date

Date: 26.04.2023

Place: Kharghar, Navi-Mumbai

Dr. Rajiv Sarin

[MD, DNB, FRCR (Clinical Oncology)],
In-Charge Cancer Genetics Unit, ACTREC

सेक्टर २२, खारघर,
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