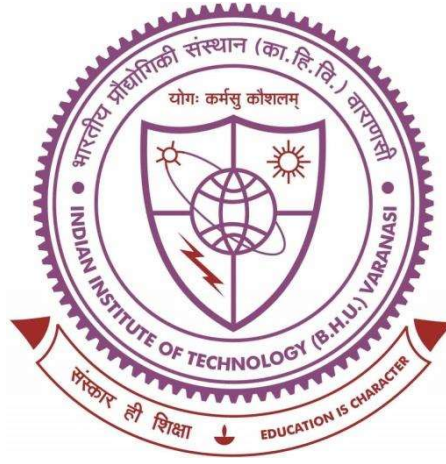


“Strategies for skin tissue regeneration using porous scaffolds”



**THESIS SUBMITTED IN PARTIAL FULFILLMENT
FOR THE AWARD OF DEGREE**

Doctor of Philosophy

By

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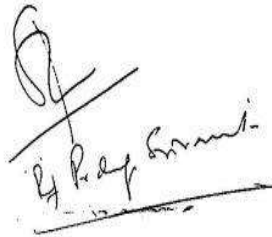
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DECLARATION BY THE CANDIDATE

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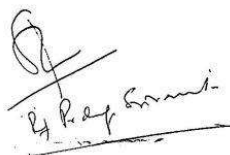
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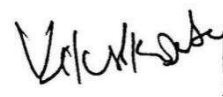
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Dedicated to
my beloved
parents and
respected
teachers

ACKNOWLEDGEMENT

Through this page, I offer my tributes, to the founder of the Banaras Hindu University Bharat Ratna - Mahamana Pt. Madan Mohan Malviya Ji.

Its time I penned down my gratitude towards all the wonderful people who have joined hands in making this long-time dream come true. I take this opportunity to express my deep sense of gratitude to my thesis supervisor, Prof. Pradeep Srivastava for his valuable support, suggestion and co-operation to complete the study. I am thankful to my co-supervisor, Dr. Abha Mishra for her constant motivation and support for the study. I express my sincere thanks to the coordinator Prof. Vikash Kumar Dubey for providing the required facilities and administrative support throughout my research work.

It is a great privilege for me to express my gratitude to all the RPEC members Prof. P.K. Mishra, Department of Chemical Engineering and Technology, IIT (BHU), Prof. Subir Kundu and Prof. Mira Debnath (Das), School of Biochemical Engineering, IIT (BHU) Varanasi for their technical suggestions and valuable guidance.

. I take this as an opportunity to express my hearty thanks to all the other faculty members of School of Biochemical Engineering, IIT (BHU), Prof. R.M. Banik, Dr. Ashish Kumar Singh, Dr. Sanjay Kumar and Dr. Vishal Mishra for their support and constant motivation.

I would also like to express my sincere thanks to Central Instrumentation Facility Centre (CIFC), IIT (BHU) Varanasi for providing access to sophisticated instruments.

I also acknowledge the Ministry of Human Resource and Development (MHRD), Govt. of India, New Delhi, and Director, IIT (BHU) for the financial support in the form of teaching assistantship and other grants.

I also owe a lot to all the non-teaching staff of the School of Biochemical Engineering, IIT (BHU) including Mr. Suchit Verma, Mr. Ramashankar Singh, Mr. Dinesh, Mrs. Usha, Mr. Arun as this work would have never been completed without their support.

My heartfelt thanks go to my labmates, Dr. (Mrs.) Rupika Sinha, Dr. Sarada Prasanna Mallick, Mrs. Namarata Yadav, Mr. Shubhankar and Mr. Divakar Singh, Mr. Aditya Anand, Ms. Shikha Kumari, Ms. Priya Shukla, Ms. Soumya Katiyar and Ms. Darshna.. I would also thank Dr. B.N. Singh, Post Doctoral Fellow at Tissue Engineering Lab, School of Biochemical Engineering, for his valuable support and encouragement towards the successful completion of my research work. I would like to thank my seniors, Dr. Ashish, Mr. Sukhendra Singh for their care and encouragement. I will remember the support I get from the friend from Mr. Tarun, Mr. Deepak Rathore, Mr. Vishwanath Pratap, Mr. Hareram Birla, Mr. Vipin Rai, Mr. Rahul Ranjan, Mr. Veer Singh, Mr. Rahul Kumar and Dr. Prabhakar Tripathi.

It is impossible to express in words, my gratefulness towards my parents Shri Santosh Kumar Tripathi and Smt. Nirmala Tripathi who were the foundation of my strength and endeavor with never ending motivation, blessings and faith. Also, my loving brother, Mr. Ved Vrat Tripathi and Sister Mrs. Sakshi Pandey always deserves my gratitude for helping me with his affectionate nature.

Satyavrat Tripathi

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Abbreviation

μg	Microgram
μL	Microliter
nm	Nanometer
mg	Milligram
PCL	Polycaprolactone
CPO	Calcium peroxide
ROS	Reactive oxygen species
FDA	Food and Drug Administration, USA
ECM	Extracellular matrix
SF	Silk fiber
pH	Power of hydrogen
FGF	Fibroblast growth factor
PVA	Poly vinyl alcohol
COL	Collagen
CH	Chitosan
CPX	Ciprofloxacin
EDC	1-Ethyl-3-(3-dimethyl aminopropyl)- carbodiimide
NHS	<i>N</i> - hydroxysuccinimide

GF	Growth factor
GFR	Growth factor regulator
TNF	Tumor necrosis factor
IL	Interleukin
VEGF	Vascular endothelial growth factor
H ₂ O ₂	Hydrogen peroxide
MTT	3-(4,5-dimethylthiazol-2-yl)-2,5- diphenyl tetrazolium bromide
DMSO	Dimethyl sulfoxide
EDTA	Ethylenediaminetetraacetic acid
DMEM	Dulbecco's Modified Eagle Medium
FBS	Fetal bovine serum
PBS	Phosphate buffer saline
DDW	Double distilled water
SEM	Scanning electron microscope
EDX	Energy Dispersive X-ray
WVTR	Water Vapor Transmission Rate
FTIR	Fourier transform infrared spectroscopy
XRD	X-ray diffraction
TGA	Thermal gravimetric analysis
DSC	Differential scanning calorimetric

T_g	Glass transition temperature
T_c	Crystallization temperature
T_m	Melting temperature
DO	Dissolve oxygen
DNA	Deoxyribonucleic acid
SD	Standard deviation
SC	Scaffold
T_D	Temperature of dehydration
ΔH_D	Enthalpy of dehydration
DAPI	4',6-diamidino-2-phenylindole