

Studies on Proteins Involved in Cell Death/Survival Pathways

A thesis submitted

in partial fulfillment of the requirements

for the award of a degree of

DOCTOR OF PHILOSOPHY

by

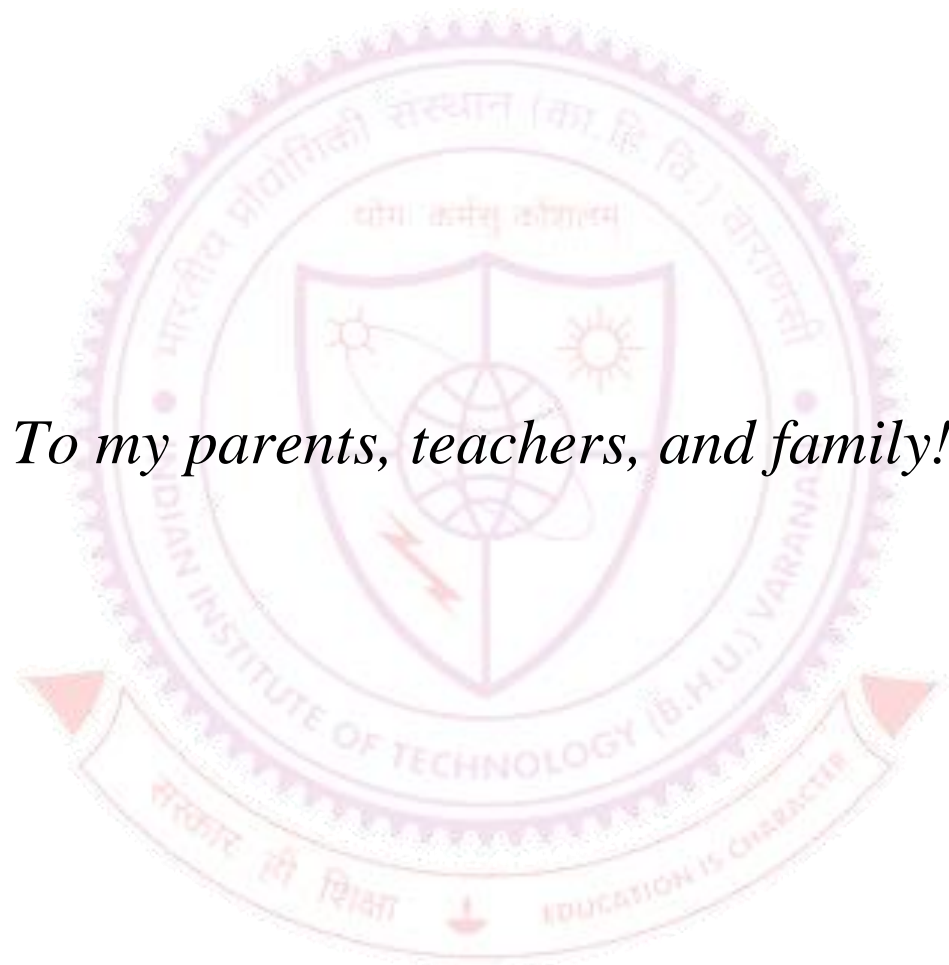
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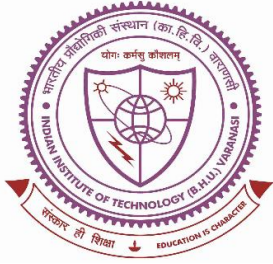


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October 2023



To my parents, teachers, and family!



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It is certified that the work contained in this thesis entitled “**Studies on proteins involved in cell death/survival pathways**” by **Kumari Prerna**, a student of the School of Biochemical Engineering, Indian Institute of Technology (BHU), Varanasi, for the award of the degree of Doctor of Philosophy, has been carried out under my supervision and this work has not been submitted elsewhere for a degree. It is further certified that the student has fulfilled all the requirements of the Comprehensive Examination, Candidacy, and State of the Art for the award of a Ph.D. degree.

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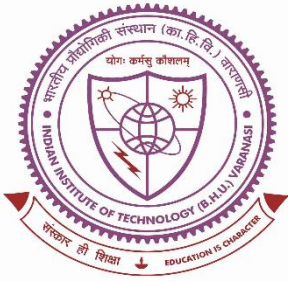
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Acknowledgment

In recognition of the significant support and contributions I have received over more than five years, I wish to extend my heartfelt gratitude to all those who have been instrumental in my journey. This period has been marked by profound personal and professional growth, and I deeply appreciate the collective efforts that have led to my development.

First and foremost, I am immensely thankful to my supervisor, Prof. Vikash Kumar Dubey, for entrusting me with the opportunity to engage in an exciting and challenging project, which has allowed me to cultivate diverse skills. I am deeply indebted to him for his invaluable experience, unwavering guidance, and steadfast support throughout my doctoral studies. His encouragement of intellectual freedom, ability to instigate innovative ideas, and insistence on delivering work of the highest quality have been pivotal in shaping my progress.

I also extend my gratitude to the other esteemed research progress evaluation committee members, Prof. R. S. Singh and Dr. Sanjay Kumar, for their invaluable insights into my work and their dedication to elevating the overall quality of my research output.

Furthermore, I wish to acknowledge the indispensable support of the administration and the Param Shivay Supercomputing Facility at the Indian Institute of Technology (BHU) Varanasi. I am deeply appreciative of the facilities made accessible through the Central Discovery Centre (CDC) at BHU, as well as the Confocal microscopy facility at the Interdisciplinary School of Life Sciences, BHU.

My gratitude extends to Prof. Rakesh K. Singh of the Department of Biochemistry at the Institute of Science, BHU, for his help and patient mentorship and for providing a few of his laboratory resources. Completing my thesis work would not have been possible without his unwavering support. I am also thankful to Dr. Alok K. Mishra, Dr. Rajan Singh, Dr. Anshul Anand, Baishakhi Mahapatra, Abhishek Singh, and Naveen Singh for their guidance in all the animal cell culture practices and their valuable scientific discussions for more than a year.

I must also express my appreciation for the support, guidance, and few laboratory resources provided by Dr. Anand Singh, RLS Fellow at the Interdisciplinary School of Life Sciences, BHU, and Dr. Richa Arya of the Department of Zoology, BHU, who consistently made time to help me with confocal microscopy experiments and offered valuable insights whenever I sought their advice. I extend special thanks to Sachin G Swamy for his steadfast support in times of need.

My heartfelt appreciation goes out to the exceptional individuals who have been part of my PhD journey, including seniors, batchmates, and juniors. I owe a special note of gratitude to Dr. Sunita Yadav and Dr. Jay Prakash, whose guidance was invaluable during the early stages of my doctoral pursuit. I want to convey my profound thanks and recognition to Dr. Monu Pande for the invaluable moral support she has provided me during the various stages of my academic journey. I am also grateful to Dr. Ehasanullah Khan for his critical insights, valuable comments, and suggestions throughout my PhD journey.

In the face of the unprecedented challenges brought about by the COVID-19 pandemic, Dr. Subhomoi Borkotoky emerged as an invaluable source of support, particularly in the realm of computational biology. His contributions have left an indelible mark on my work, and I deeply appreciate his assistance.

I am profoundly grateful to my batchmate and labmate, Dr. Debanjan Kundu, whose significant contributions have shaped me as a researcher. I also extend my heartfelt thanks to my other labmates, including Naveena Menapadi, Manash Sarma, Preeti Ranjan, Kushal Bora, and Umesh, for their unwavering support and enthusiasm throughout our shared journey in the Cellular Biochemistry Laboratory. The assistance provided by Mr. Rajiv Kumar, our lab staff, is highly commendable.

My acknowledgment would be incomplete without recognizing the dedicated juniors who completed their IDD and M.Tech. projects in our lab. I deeply appreciate the collaboration with Umesh Bhati, Daniel Pegu, Digvijay Pratap, Mihir Anand, Shruti Pandey, Neeraj Moitra, Shalini Mishra, Bhavya Rajan, Ria Sonigra, Kshitij Sinha, Tanuj Handa, and Abhishek Sahu. Their involvement has offered ample opportunities to refine my mentoring skills, and I am grateful for the support and assistance they provided at various junctures.

I extend my sincere appreciation to my friends hailing from various corners, with a special acknowledgment to Ananth Casius, Harshita Kasera, Jiban Barman, Anil Yadav, Mansoor Ali, Shashi, Rajan Tiwari, and, notably, Rohit Singh Rawat. Their steadfast support, invaluable insights, and companionship have been indispensable components of my personal and professional journey.

I would also like to express my appreciation to my fellow batchmates and lab alums, Dr. Gundappa Saha, Dr. Adarsh Chiranjivi, and Dr. Kamalesh Verma, for their valuable guidance and insightful scientific discussions on a myriad of topics. Their contributions have greatly enriched my academic experience.

My sincere thanks extend to the successive Coordinators of my School, Prof. Subir Kundu and Prof. Pradeep Srivastava, as well as the esteemed faculty members. Their constant

presence and readiness to assist me whenever needed have been invaluable throughout my academic pursuits.

Lastly, I wish to convey my deep appreciation to the members of the School of Biochemical Engineering for their support and the organization of remarkable events. Being part of such a vibrant graduate school and connecting with like-minded individuals has been a privilege. The dedicated efforts of all the esteemed faculty members and the teaching and non-teaching staff also deserve commendation.

In closing, I reserve my most profound gratitude for my parents, teachers, and extended family, whose unwavering belief in me, my work, and my abilities, as well as their steadfast support, have played an indispensable role in my educational journey. With the grace of the almighty, I am genuinely thankful for all the individuals and institutions that have contributed to my growth and success.

Signing off

Kumari Prerna

October, 2023

List of Abbreviations

Atg	Autophagy-related gene
Bcl-2	B-cell lymphoma 2
OTC	Ornithine Transcarbamylase
ASL	Argininosuccinate Lyase
MHC	Major Histocompatibility Complex
ESCs	Embryonic Stem Cells
iPSCs	induced Pluripotent Stem Cells
EVT	Extravillous Trophoblast
ICM	Inner Cell Mass
hESCs	human Embryonic Stem Cells
TNF- α	Tumor Necrosis Factor α
MM/PBSA	Molecular Mechanics Poisson-Boltzmann Surface Area
PON	Ponatinib
cDNA	complementary DNA
DOX	Doxorubicin
RAP	Rapamycin
3-MA	3- Methyladenine
ATG4A	Autophagy Related Gene 4A
FDA	Food and Drug Administration
PDB	Protein Data Bank
MD	Molecular Dynamics
RMSD	Root Mean Square Deviation
AMBER	Assisted Model Building with Energy Refinement
ADME	Absorption, Distribution, Metabolism, and Excretion
RMSF	Root Mean Square Fluctuation
HER2	Human Epidermal growth factor Receptor 2
LDHA	Lactate Dehydrogenase
AD	Alzheimer's Disease
ROS	Reactive Oxygen Species
MALAT1	Metastasis-Associated Lung Adenocarcinoma Transcript 1
CoV	Coronaviruses
NSCLC	Non-Small Cell Lung Cancer

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