

MAJOR PROJECT REPORT

**ASSESSMENT OF SMALL MOLECULE BINDING POCKETS
OF *Clostridium perfringens***

Submitted by
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09/BINF/2010
M.Tech BioInformatics,
4th semester

SUBMITTED
IN PARTIAL FULFILLMENT OF THE AWARD OF DEGREE OF
**MASTER OF TECHNOLOGY
IN
BIOINFORMATICS**



**DEPARTMENT OF BIOTECHNOLOGY
DELHI TECHNOLOGICAL UNIVERSITY
(FORMERLY DELHI COLLEGE OF ENGINEERING)**

Certificate

This is to certify that the project entitled – “ASSESSMENT OF SMALL MOLECULE BINDING POCKETS OF *Clostridium perfringens*” has been carried out by ***Ms. Neelakshi Saini*** at the Department of Biotechnology, Delhi Technological University, (formerly Delhi College of Engineering), Delhi in partial fulfilment for the degree of **Master of Technology in Bioinformatics from Delhi Technological University, (formerly Delhi College of Engineering), Delhi.**

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Declaration

I *Neelakshi Saini*, M.Tech Bioinformatics student hereby declare that the project entitled ***“ASSESSMENT OF SMALL MOLECULE BINDING POCKETS OF Clostridium perfringens”*** submitted for the partial fulfilment of the degree Master of Technology in Bioinformatics is a record work done by me, during the period Jan, 2012 - June, 2012 and has not formed the basis for the award of any Degree or other similar titles under any University in India or Abroad.

Neelakshi Saini

ACKNOWLEDGEMENT

Many peoples advice and encouragement were critical throughout my project period, have supported the successful completion of the project that I undertook at Department Of Biotechnology, Delhi Technological University and I am indebted to all of them. The overall Organization of the project and management of its development were overseen by Prof. P. B. Sharma, Vice-Chancellor, DTU.

I am heartily thankful to Prof. S. Maji, Head of the Department, for permitting me to work in excellent environment of our Bioinformatics lab.

And, I take this opportunity to express my deep sense of gratitude and reverence to my research supervisor, Dr. Navneeta Bharadvaja, Assistant Professor, Department of Biotechnology, Delhi Technological University, for her able guidance and expert supervision. I am thankful to her for introducing me to the virtues and excellence of scientific research. Her valuable suggestions in the preparation of this manuscript are also gratefully acknowledged.

I remain grateful to all other faculty members for their support, encouragement and guidance.

Last but not the least, I owe thanks to my parents and friends for their immense love, patience, moral support and encouragement in accomplishing this piece of work.

Neelakshi Saini

ABSTRACT

Here we report a study that focuses on methodology for assessing the Drugability of all small-molecule binding pockets in a pathogen *Clostridium perfringens*. The approach incorporates accurate pocket identification, sequence conservation with host as well as similar organism and structure resolution. The method was applied to 15 structures from pathogen *Clostridium perfringens* as a result around 71 appropriate pockets were identified, which were then scored and ranked. About 6 new targets were identified, which further need to be analysed for their Drugability potential.

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