



# Library Indian Institute of Science Education and Research Mohali



**DSpace@IISERMohali (/jspui/)**

**/ Thesis & Dissertation (/jspui/handle/123456789/1)**

**/ Master of Science (/jspui/handle/123456789/2)**

**/ MS-08 (/jspui/handle/123456789/270)**

Please use this identifier to cite or link to this item: <http://hdl.handle.net/123456789/313>

Title: Study of Modulation of chemokines important for Neutrophil recruitment by *Vibrio cholerae* porin OmpU

Authors: Banerjee, Kasturi (/jspui/browse?type=author&value=Banerjee%2C+Kasturi)

Issue Date: 26-Apr-2013

Abstract: *Vibrio cholerae* is a human pathogen that causes fatal disease, known as, cholera. *V. cholerae* have multiple virulence factors like accessory colonization factor (acf), Toxin co-regulated pilus (TCP), cholera toxin (CT) etc. that help in pathogenesis of *V. cholerae*. Gram negative bacteria have outer membrane proteins (Omp), most of them are porins which form transmembrane channels. OmpU is an outer membrane porin protein that had been reported to provide resistance against bile and anti-microbial peptides in *V. cholerae*, adherence in *V. vulnificas* and effector of pathogenesis in *V. splendidas*. *V. cholerae* colonizes intestinal epithelial cells using a complex interplay of colonization factors. Work by other people from our lab showed that OmpU have a characteristic dual nature of immune responses. OmpU up-regulates the expression of pro-inflammatory molecules in monocytes and macrophages. But it had also been observed that OmpU inhibits LPS (lipopolysaccharide) mediated effects. To study whether there is any effect of OmpU on the chemokines crucial for neutrophil recruitment, we have probed THP-1 human monocytic cell line with purified recombinant OmpU protein. We observed that OmpU, in THP-1 monocytes induces the expression of all the important chemokines (i.e. IL-8, CXCL-1, CXCL-2, CXCL-5 and CCL-5 (RANTES)), involved in neutrophil recruitment.


URI: <http://hdl.handle.net/123456789/313> (<http://hdl.handle.net/123456789/313>)

Appears in MS-08 (/jspui/handle/123456789/270)  
Collections:

Files in This Item:

File	Description	Size	Format	
MS-08029.pdf (/jspui/bitstream/123456789/313/1/MS-08029.pdf)		240.27 kB	Adobe PDF	<a href="#">View/Open (/jspui/bitstream/123456789/313/1/MS-08029.pdf)</a>

Show full item record (</jspui/handle/123456789/313?mode=full>)

 (</jspui/handle/123456789/313/statistics>)

Items in DSpace are protected by copyright, with all rights reserved, unless otherwise indicated.