

<p>Dr. Anil Kumar Verma Post-Doctoral Fellow (N-PDF) Department of Biotechnology</p> 	<p>Educational Qualifications</p> <ul style="list-style-type: none"> ● Ph.D. Department of Biotechnology, Indian Institute of Technology Guwahati Assam, 2015. ● Master in Industrial Microbiology, School of Life Sciences DAVV Indore, 2009. ● Bachelor in Biotechnology, Holkar Science College Indore, 2007.
<p>Dr. Anil K Verma is an industrial microbiologist specializes on functional, structural and application part of industrially important enzymes from different sources. His current research focusses on identification and characterization of potential carbohydrate active enzymes from microbes (especially rumen and gut microbiota). Emphasis has been given to produce tailor-made enzymes of enhance activity to efficiently degrade plant polysaccharides in order to produced biofuel and other value-added products.</p>	<p>Honors and Awards</p> <ul style="list-style-type: none"> ● Graduate Aptitude Test in Engineering (GATE) qualified (2008) ● CSIR-UGC National Eligibility Test (NET-LS) qualified (2009) ● National Post-Doctoral Fellowship (N-PDF, 2016) from Science & Engineering Research Board (SERB-DST)
	<p>Selected Publications</p> <ol style="list-style-type: none"> 1. The family 6 Carbohydrate Binding Module (CtCBM6) of glucuronoxylanase (CtXynGH30) of <i>Clostridium thermocellum</i> binds decorated and undecorated xylans through Cleft A. Anil K. Verma, Carlos M.G.A. Fontes and Arun Goyal <i>et.al</i> Archives of Biochemistry and Biophysics, Elsevier (2015) doi.org/10.1016/j.abb.2015.03.026. 2. <i>In silico</i> structural characterization and molecular docking studies of first glucuronoxylan-xylanohydrolase (Xyn30A) from family 30 glycosyl hydrolase (GH30) from <i>Clostridium thermocellum</i>, Anil K. Verma and Arun Goyal Molecular Biology (Springer). (2014) doi: 10.1134/S0026893314020022.

3. Overexpression, crystallization and preliminary X-ray crystallographic analysis of glucuronoxylan-xylanohydrolase (Xyn30A) from *Clostridium thermocellum*, **Anil K. Verma**, Arun Goyal *et.al* **Acta Crystallografica F** 69, 1440-1442. (2013) [doi:10.1107/S1744309113025050](https://doi.org/10.1107/S1744309113025050).
4. A novel member of glycoside hydrolase family 30 subfamily 8 glucuronoxylan endo- β -1,4-xylanase (CtXynGH30) from *Clostridium thermocellum* orchestrates catalysis on arabinose decorated xylans, **Anil K. Verma** and Arun Goyal, **Journal of Molecular Catalysis B: Enzymatic**, Elsevier, (2016) [doi: 10.1016/j.molcatb.2016.04.001](https://doi.org/10.1016/j.molcatb.2016.04.001).
5. Conservation in the mechanism of glucuronoxylan hydrolysis revealed by the structure of glucuronoxylan xylanohydrolase (CtXyn30A) from *Clostridium thermocellum*. Filipe Freire[†], **Anil K. Verma**[†], Arun Goyal, *et. al.* **Acta Crystallographica** Section D (2016) (equal contribution) [doi:10.1107/S2059798316014376](https://doi.org/10.1107/S2059798316014376).
6. Mannan specific family 35 carbohydrate binding module (CtCBM35) of *Clostridium thermocellum*: structure analysis and ligand binding. Arabinda Ghosh[†], **Anil K. Verma**[†], Arun Goyal *et. al.* **Biologia** (Section Cellular and Molecular Biology, Springer) (2014). [doi: 10.2478/s11756-014-0444-y](https://doi.org/10.2478/s11756-014-0444-y).
7. Structure and functional investigation of ligand binding by a family 35 carbohydrate binding module (CtCBM35) of β -mannanase of family 26 Glycoside Hydrolase from *Clostridium thermocellum*. Arabinda Ghosh[†], **Anil K. Verma**[†], Saurabh Gautam, Munishwar N. Gupta and Arun Goyal **Biochemistry (Moscow)** (2014). [doi: 10.1134/S0006297914070098](https://doi.org/10.1134/S0006297914070098).
8. Recovery and purification of oligosaccharides from copra meal by recombinant endo- β -mannanase and deciphering molecular mechanism involved and its role as potent therapeutic agent. Arabinda Ghosh[†], **Anil K. Verma**[†], Jagan Mohan Rao T., Rishikesh Shukla and Arun

	<p>Goyal (Molecular Biotechnology (Springer) (2014)). doi: 10.1007/s12033-014-9807-4.</p> <p>9. Structure modelling and functional analysis of recombinant dextransucrase from <i>Weissella confusa</i> Cab3 expressed in <i>Lactococcus lactis</i> Shraddha Shukla, Anil K. Verma, Arun Goyal <i>et.al</i> Preprative Biochemistry & Biotechnology (2016). doi:10.1080/10826068.2016.1141299</p> <p>10. Optimization of enzymatic saccharification and fermentation process parameters for production of bioethanol from <i>Populus nigra</i> using recombinant enzymes from <i>Clostridium thermocellum</i>. Ashutosh Gupta, Anil K. Verma, Arun Goyal <i>et. al</i> Research Journal of Recent Sciences (2015).</p>
--	---