



**University School of Biotechnology**  
**Guru Gobind Singh Indraprastha University**  
 Sec-16C, Dwarka, New Delhi-110078

Title	Dr.	First Name	Kamal Krishan	Last Name	Aggarwal	Photograph	
Designation		Professor					
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Educational Qualifications							
Degree		Institution			Year		
PhD		Biochemistry and Molecular Biology laboratory, Department of Botany, University of Delhi, Delhi - 110 007			1994		
M. Phil							
PG		M.Sc. (Botany) Meerut University, UP			1986		
UG		B. Sc. (H) Botany, Hansraj College, University of Delhi, Delhi – 110007			1984		
Career Profile							
<ul style="list-style-type: none"> <li>• Ph. D. – 1994</li> <li>• Research Scientist - 1994</li> <li>• Lecturer – 1999 - 2004</li> <li>• Reader - 2004 - 2007</li> <li>• Associate Professor – 2007 – 2010</li> <li>• Professor – 2010 - present</li> <li>• Dean, USBT – 1<sup>st</sup> August 2018 to 31<sup>st</sup> July 2021</li> </ul>							
Administrative Assignments in last three years							
<ul style="list-style-type: none"> <li>• Dean, University School of Biotechnology (1<sup>st</sup> August 2018 to 31<sup>st</sup> July 2021),</li> <li>• Academic Council Member (1<sup>st</sup> August 2018 to 31<sup>st</sup> July 2021)</li> </ul>							

<p><b>Areas of Interest / Specialization</b></p> <ul style="list-style-type: none"> <li>• Plant-insect interactions (protease-protease inhibitor interactions);</li> <li>• Proteomics;</li> <li>• Purification, characterization and regulation of Enzymes/Proteins;</li> <li>• Bio-remediation</li> </ul>
<p><b>Subjects Taught</b></p> <p>Enzyme Technology (UG)  Environment biotechnology (UG)  Proteomics (PG)</p>
<p><b>Research Guidance</b></p> <p>Ph.D. awarded: 07  Ph.D. guiding: 04  M. Tech Dissertation – Approx. 12  B.Tech dissertation - Approx. 40</p>
<p><b>Publications Profile (Best ten publications)</b></p> <ul style="list-style-type: none"> <li>• Meena, S.S., Sharma, R.S., Gupta, P., Karmakar, S. and <b>Aggarwal, K.K.</b> (2016). Isolation and identification of <i>Bacillus megaterium</i> YB3 from an effluent contaminated site efficiently degrades pyrene. <b>J Basic Microbiol. 56, 369-378.</b></li> <li>• Kumar, S., Sharma, P., Bansal, A., Sharma, P.C., and <b>Aggarwal, K.K.</b> (2014). Hypobaric hypoxia-mediated protein expression in plasma of susceptible &amp; tolerant rats. <b>Indian Journal of Medical Research, 140: 756-765.</b></li> <li>• Kipgen, L. and <b>Aggarwal, K.K.</b> (2014). Gut protease profiles of different instars of <i>Helicoverpa armigera</i> (Lepidoptera:Noctuidae). <b>International Journal of Tropical Insect Science, 34(3): 172–178.</b></li> <li>• Nair, R., Kalia, V., <b>Aggarwal, K.K.</b>, and Gujar, G.T. (2010). Inheritance of Cry1Ac resistance and associated biological traits in the cotton bollworm, <i>Helicoverpa armigera</i> (Lepidoptera: Noctuidae). <b>Journal of Invertebrate Pathology, 104 (1):31-38.</b></li> <li>• Rai, S., <b>Aggarwal, K.K.</b>, Mitra, B., Das, T.K. and Babu, C.R. (2010). Purification, characterization and immunolocalization of a novel protease inhibitor from hemolymph of tasar silkworm,</li> </ul>

*Antheraea mylitta*. **Peptides, 31 (3): 474-481.**

- Rai, S., **Aggarwal, K.K.** and C.R.Babu (2008). Isolation of a Serine Kunitz Trypsin Inhibitor from leaves of *Terminalia arjuna*; a host plant for tasar silkworm. **Current Science, 94(11): 1509-1512.**
- Rajiv, J., Dam, T., Kumar, S., Bose, M., **Aggarwal, K. K.** and Babu C. R. (2001). Inhibition of the in vitro growth of *Mycobacterium tuberculosis* by a phytosiderophore. **Journal of Medicinal Microbiology, 50:916-918.**
- **Aggarwal, K. K.**, Rajiv, J. and Babu, C. R. (1999). A rock iron solubilizing compound from the root exudate of *Tephrosia purpurea* (L.) Pers. **Journal of Chemical Ecology, 25:2327-2336.**
- **Aggarwal, K. K.**, and Sachar, R. C. (1995). Gibberellin stimulates synthesis of a protein kinase in dwarf pea epicotyles. **Phytochemistry, 40:383-387.**
- **Aggarwal, K. K.**, Saluja, D. and Sachar, R. C. (1993). Phosphorylation of RuBisCo in *Cicer arietinum*: non-phosphoprotein nature of RuBisCo in *Nicotiana tabaccum*. **Phytochemistry, 34:329-355.**

#### **Conference Organization/ Presentations (in the last three years)**

- Shanky Jindal and **K.K. Aggarwal (2020)**. “Polyaromatic hydrocarbon tolerance among microbes” UGC and DST INDO-UK Project sponsored International Conference on “Microbial Biotech Interactions for Sustainable Agriculture and Societal Development” (6-7 Feb 2020) held at University School of Sciences, Gujrat University, Gujrat (Poster Presentation)
- Sawetaji, and **K.K. Aggarwal (2020)**. “Plant based thrombin inhibitor to combat thrombosis” Biosangsm 2020 International Conference on Biotechnological Interventions for Societal Development, 21-23 feb 2020, Prayagraj, U.P.
- Shanky Jindal and **K.K. Aggarwal (2020)**. “Effect of Polyaromatic Hydrocarbons on Soil Microflora” International conference on “Innovations in Biotechnology and Life Sciences, organized by Delhi Technological University, 18<sup>th</sup> December 2020 – 20<sup>th</sup> December 2020.
- **Invited lecture** on “An update on protein staining and visualization” in Seabuckthorn-Genomics, Proteomics and Metabolomics conference organized by Department of Botany,

University of Delhi, Delhi – 110007 from **23 - 27 December, 2019.**

#### **Research Projects (Major Grants/Research Collaboration)**

Grants received as PI/Co-PI

- “Documentation of traditional knowledge of medicinal plants held by Bhotias of Dharchula in Uttaranchal State: Potential for development of new drugs” sanctioned by Ministry of Environment and Forest with budget of Rs. 9, 35, 520/- (2004-2006).
- “Construction of metagenomic library for screening of novel hydrolytic enzymes with potential of industrial applications” sanctioned by AICTE with budget of Rs 7.0 lakhs (2006-2009).
- “Tolerance to low oxygen: Global gene expression profiling and proteome analysis in response to hypobaric hypoxia” sanctioned by Defense Research and Development Organization (DRDO), with a budget of Rs 9.95 Lakhs (jointly with Prof. P.C. Sharma); Feb 8, 2008 to Feb 7, 2010.
- UGC-SAP: Thrust area “Phytomedicines” with budget of 45.50 Lakhs (2011-2016) (with four other faculty members).

#### **Awards and Distinctions**

- **Best Teacher Award for the year 2004-2005 of GGS Indraprastha University.**

#### **Association With Professional Bodies**