

**INDRAKANT K. SINGH**  
**Curriculum Vitae\_March 2021**

**Associate Professor & Head (Coordinator), i4 Center**

Department of Zoology

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***Education and Training:***

2019	Visiting Scientist	Department of Molecular Ecology, Max-Planck Institute for Chemical Ecology, Max-Planck Institute for Chemical Ecology, Jena, Germany
2016-2017	Post-doctoral	Department of Entomology, University of Kentucky, Lexington, USA
2012	M.Sc. Bioinformatics	Jamia Millia Islamia, New Delhi
2008	Ph.D.	Department of Zoology, (Advance Centre in Zoological Research), University of Delhi, Delhi-110007, India
2000-2001	M.Phil.	Department of Zoology, (Advance Centre in Zoological Research), University of Delhi, Delhi-110007, India
1998-2000	M.Sc. Zoology	University of Delhi, Delhi
1995-1998	B.Sc. (Hons) Zoology	Hansraj College, University of Delhi, Delhi

***Appointments and Positions:***

2020- pres.	Head, i4 Center (DBT-DBC), Deshbandhu College, DU
2019- pres.	Associate Professor, Department of Zoology, Deshbandhu College, University of Delhi, Kalkaji, New Delhi-110019
2009-2019	Assistant Professor, Department of Zoology, Deshbandhu College, University of Delhi, Kalkaji, New Delhi-110019
2012-2019	Public Information Officer (PIO), Deshbandhu College, DU
2013-2018.	Visiting/Guest Faculty, Department of Computer Science (Bioinformatics) Jamia Millia Islamia, Delhi-25
2013-2014	Visiting/Guest Faculty, Department of Biotechnology, NSIT, University of Delhi, Dwarka, New Delhi- 110078
2005-2006	Assistant Professor (Ad-hoc), Department of Zoology, Hansraj College, University of Delhi, New Delhi
2008	Assistant Professor (Ad-hoc), Department of Zoology, Zakir Hussain Delhi College, University of Delhi, New Delhi

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**Awards/Fellowships:**

- 2019-2020     **Long Term ICMR-DHR International Fellowship for Young Bio-medical Scientists-2019-20** to Work at Keck School of Medicine, University of Southern California, Los Angeles, USA
- 2019-2019     **Max-Planck Society Visiting Post-Doctoral Fellowship** at Department of Molecular Ecology, Max-Planck Institute for Chemical Ecology, Jena, Germany
- 2016-2017     **University Grant Commission (UGC)-Raman Post-doctoral Fellowship** to work at University of Kentucky, Lexington, USA
- 2013-2016     **Young Scientist Scheme Award** (Start-up Grant), Science and Engineering Research Board (SERB), Department of Science & Technology, Govt. of India, New Delhi
- 2018            Bharat Ratna Dr. A. P. J. Abdul Kalam Memorial Grace India "**Best Teacher Awards 2018**" for contributions to research by Grace India Educational Charitable Trust, New Delhi, in the award ceremony at Hans Raj College, Delhi, India.
- 2017            **Best Researcher Awards 2017**, from Grace India Educational Charitable Trust, New Delhi, for research contribution in the award ceremony held at Hans Raj College, Delhi, India.
- 2015            Nominated as an **Indian Delegate** for An "**International Program on "Reservation and Exploration of Herbal Medicine Resources for Asian Countries"** funded by Ministry of Commerce, People's Republic of China, from August 19, 2015, to September 8, 2015.
- 2008            **Best participant in Life Science Category Prize** (With Honorarium USD200) in IFTF X2 workshops Organized by Institute For The Future, University Avenue, Palo Alto, California, USA held at The Sheraton, New Delhi, India.

**Projects/Travel Grants:**

- 2020-2023     Funded by Indian Council of Medical Research, Ministry of Health & Family Welfare, Govt. of India Govt. of India "*Identification of the molecular mechanism of mechano-transduction pathways that act upstream of Hippo Pathway for treatment of breast cancer*" **(Principal Investigator [PI])**
- 2019-2022     Funded by Department of Health Research, Ministry of Health & Family Welfare, Govt. of India "*Design, synthesis and biological evaluation of novel lead compounds for the treatment of Fibrodysplasia Ossificans Progressiva (FOP)*" **(Principal Investigator [PI])**
- 2019-2022     Funded by DHR, Govt. of India "*Pharmacophore modeling to design novel inhibitors of MCL-1" as targeted therapy of human cancer*" **(Mentor [PI])**

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- 2019-2022 Funded by DBT, Govt. of India "DBT Star College Project- Scheme" (**Principal Investigator [PI]**)
- 2016-2019 Funded by Department of Health Research, Ministry of Health & Family Welfare, Govt. of India "Design and development of novel inhibitors of AKRIC1 as potential lead candidates in the treatment of breast, cervical & endometrial cancer" (**Mentor[PI]**)
- 2015-2016 Funded by, UGC, Govt. of India "dsRNA-conjugated nanoparticles for gene silencing in *Aedes aegypti*" (under **UGC-Raman Post-Doctoral Fellowship**)
- 2015-2016 Funded by UGC/DU "The impact of lifestyle change during adolescence on lifestyle chronic Diseases" (**Principal Investigator [PI]**)
- 2013-2016 Funded by SERB, DST "Identification and characterization of genes involved in defense against *Spodoptera litura* from Maize (*Zea mays*)" (**Principal Investigator [PI]**)
- 2015 **International Travel Grant**, University Grant Commission (UGC), Govt. of India to present a paper in **Plant Biology Conference (Insect-Plant Biology) 2015** at Minnesota, USA.
- 2012 **International Travel Grant**, Department of Science & Technology (DST), Govt. of India to participate in **ICE-12**, Germany.
- 2012 **International Travel Grant**, University of Delhi to participate in **ICE-12**, Germany.
- 2010 **International Travel Grant**, University Grant Commission (UGC), Govt. of India to present a paper in "**The 7<sup>th</sup> Indo-Australia Biotechnology Conference**" at Queensland Medical Research Institute (QIMR), Brisbane, Australia.
- Patent (1): Indian Application No. 201911020282:** Method for identifying multidrug-resistant Mycobacterium tuberculosis strain (2019).

#### **GenBank submissions:**

Singh A, **Singh IK**, and Verma PK **2007**. Molecular responses of *Cicer arietinum* genes in response to insect attack. **64 unique cDNA sequences** isolated by Suppression subtractive Library

#### **Research Guidance Experience:**

##### **Postdocs Students:**

Dr. Priyanka Verma, **2017-Contd. (Under DHR Women Scientist Scheme)**

Dr. Sujata Singh, **2019-Contd. (Under DHR Women Scientist Scheme)**

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**Doctoral Training Record:**

1. Sujata Singh (Ph.D. Awarded 11/19) *Molecular analysis of defense response during Spodoptera litura- Maize interaction.*
2. Sumit Kumar (Ph.D. expected 1/21) *Comparative transcriptome profiling of Spodoptera litura larvae fed on different host plants*
3. Pooja Mittal (Ph.D. expected 4/23) *Design development and biological evaluation of novel MCL1 inhibitor*
4. Kapil Dangi, (Ph.D. expected 4/23) *To understand the role of CRL5 in apoptosis and resistance to MCL-1 inhibitors to improve combination treatments*

**Progressive Master/B.Tech Training Record for a major project:**

1. Shreya (2018) *Antimicrobial property of Cinnamon, Cinnamomum verum*
2. Onkar Nath (2015) *In-silico novel drug development for treatment of cancer using a novel target.*
3. Bharti Singal (2015) *Mechanistic insights into the mode of action of novel antagonists of chemokine receptors: CCR2&CCR5*
4. Priya Dulani (2014) *Functional Characterization of Hevein-like preprotein from Cicer arietinum*
5. Kirti Singh (2014) *Expression analysis of MAP Kinases in Cicer arietinum during biotic stress*
6. Sandhya Saraha Masihi (2011) *Role of angiotensinogen gene polymorphism in healthy volunteers and patients with essential hypertension in north Indian subjects*

**Undergraduate training for a minor project under DU Innovation Projects: 20**

**Research Publications:**

**\*Dated 10/4/2021**

S. No.	<b>h-index: 12</b>	<b>i10-index: 13</b>	<b>Total citations index: 625*</b>	<b>Impact Factor</b>
<b>HUMAN HEALTH</b>				
1	Naqvi, A. A.T., Fatimab, K., Mohammada, T., Fatima, U., <b>Singh, I. K.</b> , Singh, A., Atiff, M. S., Hariprasad, G., Mustafa, G. H., and Hassan, M.I. <b>(2020)</b> Insights into SARS-CoV-2 genome, structure, evolution, pathogenesis, and therapies: Structural genomics approach. <i>Biochimica et Biophysica Acta Molecular basis of disease, 1866(10): 165878.</i>			<b>5.386</b>
2	Arora, R., Kumar, A., <b>Singh, I. K.*</b> and Singh, A. <b>(2019)</b> Pathogenesis Related Proteins: a defensin for plants but an allergen for humans. <i>International Journal of Biological Macromolecules. 157: 659-672</i>			<b>5.162</b>
3	<b>Singh I. K.</b> , Singh S., Mogilicherla K., Shukla J. N. and Palli S. R. <b>(2017)</b> . Comparative analysis of double-stranded RNA degradation and processing in insects. <i>Scientific Reports 7: 17059.</i>			<b>4.394</b>
4	Agrawal, P., Kumar, S., Singh, A., Raghava, G. P. S.* and <b>Singh, I. K.* (2019)</b> NeuroPIpred: a tool to predict, design and scan insect neuropeptides. <i>Scientific Reports. 9: 5129.</i>			<b>4.394</b>

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5	Nath, O., Singh, A. and <b>Singh I. K.* (2017)</b> . <i>In-Silico</i> Drug Discovery Approach Targeting receptor tyrosine kinase-like orphan receptor 1 for Cancer Treatment. <b><i>Scientific Reports</i> 7:1029.</b>	<b>4.394</b>
6	Mittal, P., Sinha, R., Kumar, A., Singh, P., Singh, A.,* Ngasainao, M. R., and <b>Singh, I. K.* (2020)</b> Focusing on DNA Repair and Damage Tolerance mechanisms in Mycobacterium tuberculosis: an Emerging Therapeutic Theme. <b><i>Current Topics In Medicinal Chemistry</i> 20(5): 390-408.</b>	<b>3.402</b>
7	Sharma PP, Kumar S, Kaushik K, Singh A, <b>Singh IK</b> , Grishina M, Pandey KC, Singh P, Potemkin V, Poonam, Singh G, Rathi <b>(2021)</b> . In silico Validation of Novel Inhibitors of Malarial Aspartyl Protease, Plasmepsin V and Antimalarial Efficacy Prediction. <b><i>J. Biomol. Struct. Dyn</i> (Accepted)</b>	<b>3.310</b>
8	Verma P, Hassan MI, Singh A*, and <b>Singh IK (2021)</b> . Design and development of novel inhibitors of aldo-ketoreductase 1C1 as potential lead molecules in treatment of breast cancer. <b><i>Molecular and Cellular Biochemistry.</i></b>	<b>2.795</b>
9	Singh, S., Singh, A., Kumar, S., Mittal, P. and <b>Singh, I.K.* (2018)</b> Protease inhibitors: recent advancement in its usage as a potential bio-control agent for insect pest management. <b><i>Insect Science.</i> 27(2):186-201.</b>	<b>2.791</b>
10	Kumari, P., Singh, A., Ngasaina, M. R., Shakeel, S., Kumar, S., Lal, S., Singhal, A., Singh, Sohal, S. S. <b>Singh, I. K.*</b> and Hassan, M. I. <b>(2020)</b> . Potential diagnostics and therapeutic approaches in COVID-19. <b><i>Clinica Chimica Acta.</i> 510:488-497.</b>	<b>2.781</b>
11	Verma, P., Mittal, P., Singh, A., and <b>Singh, I. K.* (2020)</b> . New Entrants into Clinical Trials for Targeted Therapy of Breast Cancer: An Insight. <b><i>Anti-Cancer Agents in Medicinal Chemistry</i> 19(18):2156-2176.</b>	<b>2.556</b>
12	Singh, A., Singal, B., Nath, O. and <b>Singh, I. K.* (2015)</b> . Functional Annotation and classification of the Hypothetical Proteins of Neisseria meningitidis H44/76. <b><i>American Journal of Bioscience and Bioengineering</i> 3(5):57-64.</b>	<b>2.366</b>
13	<b>Singh, I.K.</b> , Kumari, P., Mittal, P., Kumar, A., Singal, B., Hassan, G.M., Aggarwal, R., Kamal, M.A., Singh, A.* and Hassan, I.* <b>(2020)</b> . Emerging Therapeutic Approaches to COVID-19. <b><i>Current Pharmaceutical Design ISSN: 1381-6128</i></b>	<b>2.208</b>
14	<b>Singh I. K.*</b> , Ragesh, P. R., Ganta, S. and Singh, A. K. <b>(2015)</b> Oviposition behavior of tobacco caterpillar, <i>Spodoptera litura</i> (Fabricius) (Lepidoptera: Noctuidae) on different host plants. <b><i>Journal of Entomology and Zoology Studies</i>, 3 (3): 50-54.</b>	-
15	Mittal, P., Singh, S., Singh, A.* and <b>Singh, I. K.* (2020)</b> Current advances delivery systems for treatment of Triple-negative breast cancer (TNBC). <b><i>Biology Letters.</i> 7(1): 1-12.</b>	<b>0.890</b>
16	Mangangcha, I. R., Rathore V. S, <b>Singh, I. K.</b> , and Bidyarani, O. <b>(2011)</b> . Metabolic characteristics of Polycystic Ovarian Syndrome and its associated genetic polymorphisms in North Indian women. <b><i>J Nat Sc Biol Med 2, Suppl S1: 138.</i></b>	<b>0.869</b>
17	Sinha R., Singh P., <b>Singh I. K.*</b> Mangangcha I. R., and Saini N. K. <b>(2018)</b> Structural and functional insights into putative TAG accumulating hydrolase protein (Rv1179c) of Mycobacterium tuberculosis H37Rv. <b><i>Gene Reports.</i> 13: 66-71.</b>	<b>0.70 (IF/CS)</b>
<b>PLANT PROTECTION</b>		
18	Singh, A., <b>Singh, I. K. *</b> and Verma, P. K. <b>(2008)</b> . Differential Transcript Accumulation in <i>Cicer arietinum</i> L. in Response to Chewing Insect <i>Helicoverpa armigera</i> , Mechanical Damage and Signaling Molecules	<b>5.908</b>

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	Correlates with Feeding/Dispersal Behavior. <i>Journal of Experimental Botany (U.K.)</i> . 59(9): 2379-2392.	
19	Singh, A., Kumar, A., Hartley, S., and Singh, I. K.* (2020). Silicon: Its ameliorative effect on plant defense against herbivory. <i>Journal of Experimental Botany (Oxford Press U.K.)</i> . 71(21):6730-6743.	5.908
20	Singh A., Jain D., Tyagi C, Singh S., Kumar S., and Singh I. K.* (2018) In- silico prediction of active site and in vitro DNase and RNase activities of Helicoverpa-inducible Pathogenesis Related-4 protein from Cicer arietinum. <i>International Journal of Biological Macromolecules</i> 113: 869-880.	5.162
21	Singh A., Tyagi C, Nath O., and Singh I. K.* (2018) Helicoverpa-inducible Thioredoxin h from Cicer arietinum: structural modeling and potential targets. <i>International Journal of Biological Macromolecules</i> 109: 231-243.	5.162
22	Singh, S., Tyagi, C., Rather, I.A., Sabir, J. S. M., Hassan, M., I. Singh, A., and Singh, I. K.*(2020). Molecular modeling of chemosensory protein 3 from Spodoptera litura and its binding property with plant defensive metabolites. <i>International Journal of Molecular Sciences</i> 21: 4073.	4.556
23	Singh, A.*, Kumar, A., Yadav, S., and Singh, I. K.* (2019) Reactive oxygen species-mediated signaling during abiotic stress. <i>Plant Gene</i> . 138(4):405-13.	3.6(IF/CS)
24	Singh A., Nath O., Singh S., Kumar S., and Singh I. K.* (2018) Genome-Wide Identification of the MAPK Gene Family in Chickpea and Expression Analysis during Development and Stress Response. <i>Plant Gene</i> 13: 25-35.	3.6 (IF/CS)
25	Tyagi, C., Singh, A. and Singh I. K.* (2016). Mechanistic insights into mode of action of rice allene oxide synthase on hydroxyperoxides: an intermediate step in herbivory-induced jasmonate pathway. <i>Computational Biology and Chemistry</i> 64: 227-236.	1.850
26	Singh, A. Singh, S. and Singh I. K.* (2016). Recent insights into the molecular mechanism of Jasmonate signaling during Insect-Plant Interaction. <i>Australasian Plant Pathology</i> 45:123-133.	1.423
27	Singh, I. K., Kumar, S., Singh, S. and Singh, A. (2017) Expression profiling of mitogen-activated protein kinase genes from chickpea (Cicer arietinum L.) in response to <i>Helicoverpa armigera</i> , wounding and signaling compounds. <i>Journal of Asia-Pacific Entomology</i> 20(3):942-948.	1.101
28	Singh, I. K*, Singh, A., Rai, P., and Mangangcha, I. R. (2011). Role of mitochondrial antioxidants in tolerance against radiation stress in plants. <i>J Nat Sc Biol Med</i> 2, Suppl S1: 156.	0.869
29	Ragesh, P. R.*, Ganta, S., Singh, I. K. and Singh, A. K. (2015) Attraction of neonate <i>Helicoverpa armigera</i> (Hübner) (Lepidoptera: Noctuidae) larvae to different host plant volatiles. <i>Journal of Entomology and Zoology Studies</i> 2015; 3 (3): 94-97.	-
S. No.	<b>Books</b>	-
1	Singh, I. K. and Singh, A. (eds.) (2020) "Plants-Pest interactions: From molecular Mechanism to chemical ecology" published from Springer [In Press]	-
2	Singh A and Singh I. K. (eds.) (2018) "Molecular Aspects of Plant-Pathogen Interaction" published from Springer	-
3	Singh, I. K. and Maurya, A. K. (eds.) (2014) "Basic Environmental Studies" published from Book Age Publication< New Delhi	-



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4	<b>Singh, I. K.</b> and Maurya, A. K. (eds.) (2014) " <i>Paryawaran Adhyayan: Ek Parichay</i> " published from <b>Book Age Publications New Delhi</b>	-
<b>S. No.</b>	<b>Book chapters</b>	-
1	Singh S., Singh A*, <b>Singh I.K. (2021)</b> Transcriptomics studies revealing enigma of Insect-plant interaction. In Singh, I. K. and Singh, A. (eds.) "Plants interactions with Insects: From molecular Mechanism to chemical ecology" published from Springer-Nature	-
2	Singh A*, Kumar A., <b>Singh I.K. (2020)</b> Marine Flora: Source of Drugs from the Deep-Sea Environment. In Nathani N., Mootapally C. S., Gadhvi I. R., Maitreya B. and Joshi C G (eds) Marine Niche: Applications in Pharmaceutical Sciences. Springer, Singapore.	-
3	Rai S., Kumar A., <b>Singh I K</b> and Singh A*. (2021) Seed borne diseases and its management. In Tiwari A. K. (eds) Advances in Seed production and Management. Springer, Singapore.	-
4	Agrawal S, Panwar R, Kumar A, <b>Singh I K</b> and Singh A*. (2021) Seed infesting pests and their control strategies In Tiwari A. K. (eds) Advances in Seed production and Management. Springer, Singapore.	-
5	Singh A*, Bhardwaj R., <b>Singh I.K. (2019)</b> Biocontrol Agents: Potential of Biopesticides for Integrated Pest Management. In: Giri B., Prasad R., Wu QS., Varma A. (eds) Biofertilizers for Sustainable Agriculture and Environment. Soil Biology, vol 55. Springer.	-
6	Kumar A, Panwar R, Singh A, and <b>Singh IK (2020)</b> Role of Calcium Signalling During Plant-Herbivore Interaction. In B. Giri, M. P. Sharma (eds.), Plant Stress Biology	-
7	Mehta S, Gogna M, Singh B, Patra A, Singh IK, Singh A* (2020) Silicon: A Plant Nutritional "Non-Entity"for Mitigating Abiotic Stresses. In B. Giri, M. P. Sharma (eds.), Plant Stress Biology.	-
8	Shree, P., Kumar, M., <b>Singh, I. K.</b> , Singh, D. K. (2020) Dioxin – Exposure routes, pathways, and human health implications. In: Kurwadkar, S., Mandal, P., Soni, S. (Eds.), Dioxin: Environmental Fate and Health/Ecological Consequences, <b>Taylor &amp; Francis</b> Ltd, CRC Press, London, UK.	-
9	Bajaj, S., <b>Singh, I. K.</b> , Singh, D. K. (2020) Atmospheric Fate and Transport of Dioxins - Persistent Organic Pollutants. In: Kurwadkar, S., Mandal, P., Soni, S. (Eds.), Dioxin: Environmental Fate and Health/Ecological Consequences, <b>Taylor &amp; Francis</b> Ltd, CRC Press, London, UK.	-
10	Dhadhwal, M., Sharma, P., <b>Singh, I. K. (2020)</b> Environmental Risks and Bioremediation of Dioxins. In: Kurwadkar, S., Mandal, P., Soni, S. (Eds.), Dioxin: Environmental Fate and Health/Ecological Consequences, <b>Taylor &amp; Francis</b> Ltd, CRC Press, London, UK.	-
11	Sodhi, K. K., Kumar, M., Shree, P., <b>Singh, I. K.</b> , Singh, D. K. (2020) Ecological risk of Dioxin Exposure. In: Kurwadkar, S., Mandal, P., Soni, S. (Eds.), Dioxin: Environmental Fate and Health/Ecological Consequences, <b>Taylor &amp; Francis</b> Ltd, CRC Press, London, UK.	-
12	<b>Singh, I. K.* (2021) Textbooks of Biotechnology</b> for Higher Secondary Stage Class-XII" Published by NCERT, New Delhi-110016, India. (*A development team member and contributor) <b>[In Press]</b>	-
13	<b>Singh, I. K.* (2020) Textbooks of Biotechnology</b> for Higher Secondary Stage Class-XI" Published by NCERT, New Delhi-110016, India. (*A development team member and contributor)	-

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14	<b>Singh, I. K. (2016)</b> Manual of Higher Secondary Biology Lab Kit- by National Council of Educational Research and Training (NCERT) (Team Member and Contributor)	-
15	<b>Singh, I. K. (2016)</b> <i>e-lesson</i> in Molecular Cell Biology (P-15) on cell cycle part-I (Mitosis) in epg pathsala Zoology by UGC, under an MHRD project (NME-ICT)	-
16	<b>Singh, I. K. and Singh, A. (2014)</b> " <i>Evolution</i> " (Unit 5) in the text book of XII for new CBSE-international (CBSE-i) which is available online for CBSE-i schools only".	-
17	Singh, A. and <b>Singh I. K. (2014)</b> " <b>Molecular Basis of Inheritance</b> " (Unit 4) in the text book of XII for new CBSE-international (CBSE-i) which is available online for CBSE-i schools only".	-
18	Singh, A. and <b>Singh I. K. (2014)</b> " <b>Heredity and Variation</b> " (Unit 3) in the text book of XII for new CBSE-international (CBSE-i) which is available online for CBSE-i schools only".	-
19	Kapinder and <b>Singh, I. K. (2013)*</b> co-authored <i>e-lesson</i> on " <i>Ecosystem Development</i> " for ILLI, University of Delhi (available online).	-
20	Kapinder and <b>Singh, I. K. (2013)*</b> co-authored <i>e-lesson</i> on " <i>Phylum: Ctenophora</i> " for ILLI, University of Delhi (available online).	-

#### Conference/Symposia/Oral/Poster Presentations:

1. **Singh I.K, Mittal. P, Nagar G, Singh. A (2021)** "*Gut microbiome, obesity, and colorectal cancer :A tripartite connection*" in "**61 th Annual conference of Association of microbiologists of India**" held on February 3-5,2021.
2. Mittal, P., Singh, A., **Singh, I. K.\* (2020)** *Distinct prognostic values of BCL-2 anti-apoptotic members in lung cancer: an in-silico analysis* in "**20<sup>th</sup> BIOMAT International Symposium on Mathematical and Computational Biology**" organized by International Institute for Interdisciplinary Sciences on November 1-6,2020.
3. Nagar G, Mittal.P, Singh.A, **Singh, I. K.\* (2020)** *Application of artificial intelligence for Drug Repositioning in Rare Human Disease* in "**First national e-conference on Application of Mathematical Tools in Social sciences and Sciences**" organized by Zakhir Husain Delhi College, University of Delhi on October 17-18,2020.
4. Mittal. P, Nagar G, Singh. A, **Singh, I. K.\* (2020)** *Application of Mathematical models in cancer: Drug delivery, treatment, and prognosis* in "**First national e- conference on Application of Mathematical Tools in Social sciences and Sciences**" organized by Zakhir Husain Delhi College, University of Delhi, New Delhi on October 17-18,2020,
5. Mittal. P, Singh. A, **Singh, I. K.\* (2020)** *Analysis of Myeloid cell leukemia 1 (MCL1) in Cancer: Genomic alterations, molecular mechanisms and regulation* in **International E-Conference and Hands on workshop on Health and Research in Current Scenario: With special emphasis on COVID-19 Virus Genomics and Pathogenicity** from July 14-17,2020
6. Guria, V. R., Singh, A.\*, and **Singh, I. K.\* (2020)** *Effect of Natural Products on the Regulation of the Hippo Pathway* in **International Conference on Natural Products and**



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**Human Health – 2020 (ICNPHH-2020)** \*Corresponding Author, held at Conference Centre, University of Delhi, New Delhi on February 27-29, 2020.

7. Mittal, P., Singh, S., Singh, A., and **Singh, I.K.\* (2020)** *Drug Delivery Systems for Triple-negative breast cancer (TNBC): treatment and current advances* in "**International Conference on Natural Products and Human Health – 2020 (ICNPHH-2020)**" \*Corresponding Author, held at Conference Centre, University of Delhi, New Delhi February 27-29, 2020.
8. Singh, S., Singh, A., Kumar, S., Mittal, P. and **Singh, I.K.\* (2019)** *Mapping of Larval Midgut Response of Spodoptera litura upon Feeding Zea mays* \*Corresponding Author in "**National Conference on Insect-Plant Biology in 21st Century**" held at Deshbandhu College, University of Delhi, New Delhi on November 4-5, 2019
9. Kumar, S., Agarwal, P., Singh, A., Raghava, G.P.S. and **Singh, I.K.\* (2019)** *A Computational Tool for Predicting, Designing and Scanning Insect Neuropeptide* \*Corresponding Author in "**National Conference on Insect-Plant Biology in 21<sup>st</sup> Century**" held at Deshbandhu College, University of Delhi, New Delhi on November 4-5, 2019.
10. Kumar, A., **Singh, I.K.** and Singh, A. **(2019)** *Genome-wide Identification, Characterization and Expression Analysis of Calmodulin-like (CML) Protein from Glycine max* in "**National Conference on Insect-Plant Biology in 21<sup>st</sup> Century**" held at Deshbandhu College, University of Delhi, New Delhi on November 4-5, 2019.
11. Keshan, R., **Singh, I.K.** and Singh, A.\* **(2019)** *Pathogenesis Related Protein-4: A Defensin for plants but an allergen for humans* in "**National Conference on Insect-Plant Biology in 21st Century**" held at Deshbandhu College, University of Delhi, New Delhi on November 4-5, 2019.
12. Panwar, R., Kumar, A., **Singh, I.K.** and Singh, A. **(2019)** *Functional characterization of Cytochrome P450 proteins from Glycine max involved in jasmonate turn over during Spodoptera litura infestation* in "**National Conference on Insect-Plant Biology in 21<sup>st</sup> Century**" held at Deshbandhu College, University of Delhi, New Delhi on November 4-5, 2019.
13. Singh, S., Kumar, S., Singh, A. and **Singh, I.K.\* (2019)** *Neonicotinoids- A milestone of agrochemical research with deadly impact on human health.*\*Corresponding Author in "**1<sup>st</sup> International conference on Integrative Chemistry, Biology and Translational Medicine (ICBTM-2019)**" organized by Centre for Global Health, Hansraj College, University of Delhi and Loyola University Chicago Stritch School of Medicine, USA, on February 25-26, 2019.
14. Verma, P., Mittal, P., and **Singh, I.K.\* (2019)** *New Entrants into targeted therapy of breast cancer: An insight.*\*Corresponding Author in "**1<sup>st</sup> International conference on Integrative Chemistry, Biology and Translational Medicine (ICBTM-2019)**" organized by Centre for Global Health, Hansraj College, University of Delhi and Loyola University Chicago Stritch School of Medicine, USA , on February 25-26, 2019.

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### Curriculum Vitae\_March 2021

15. Tanwar, D., Mittal, P., **Singh, I.K.** and Kumar, U.\* (2019) *Schiff's base (O, N, S donor) ligated Nickel (II) complexes as bio-activator for sustainable antibacterial activity.* \*Corresponding Author in "1<sup>st</sup> International conference on Integrative Chemistry, Biology and Translational Medicine (ICBTM-2019)" organized by Centre for Global Health, Hansraj College, University of Delhi and Loyola University Chicago Stritch School of Medicine, USA, on February 25-26, 2019.
16. Mittal, P., Singh, S., Kumar, S. and **Singh, I.K.\*** (2018) *Laccases: Blue Enzymes As An Evolving Green Technological Initiative For Biotechnological Advancements* in "4<sup>th</sup> National Symposium on Environment: Green Technology for Environmental Sustainability" held at Deshbandhu College, University of Delhi, New Delhi on September 25, 2018.
17. Palle,S.,Kumar,M.,Singh,D.K.,**Singh,I.K.** (2018) *Environmental Preservation in Vedas* in "National Conference on Ancient Indian Knowledge: Science and Technology" organized by the Department of Education in Science and Mathematics, NCERT, New Delhi, from July,17-19, 2018.
18. Garg,N.,Goel,S.,**Singh,I.K.** (2018) *Sushruta: The guru of plastic Surgery and progenitor of Rhinoplasty* in "National Conference on Ancient Indian Knowledge: Science and Technology" organized by the Department of Education in Science and Mathematics, NCERT, New Delhi, INDIA from July,17-19, 2018.
19. **Singh I. K.**, Nath, O., and Singh, A. (2018). *In-Silico Drug Discovery Approach for Cancer Treatment.* In "National Conference on Disease and Drugs: Emerging Trends and Challenges" held at Zakir Husain Delhi College, University of Delhi, New Delhi on January 31- February 1, 2018.
20. **Singh, I. K.**, Jain, D., Tyagi, C., Singh, S., Kumar, S. and Singh, A. (2017) *In-silico prediction of active site of Pathogenesis Related-4 protein from Cicer arietinum displaying RNase and DNase activities* in "National Conference on Protein Structure and Dynamics in Health and Agriculture" held at Jamia Millia Islamia, New Delhi on November 3-4, 2017
21. Singh, A., Tyagi, C., Nath, O., Mangangcha, I. R., and **Singh, I. K.** (2017) *Structural and Functional characterization of Helicoverpa-inducible Thioredoxin h from Cicer arietinum.* in "National Conference on Protein Structure and Dynamics in Health and Agriculture" held at Jamia Millia Islamia, New Delhi on November 3-4, 2017.
22. Mangangcha, I. R., Pooja Singh, P., **Singh, I. K.** and Rajesh Sinha (2017) *Mycobacterium tuberculosis stress induced proteins as drug targets against Tuberculosis* in "National Conference on Protein Structure and Dynamics in Health and Agriculture" held at Jamia Millia Islamia, New Delhi on November 3-4, 2017.
23. **Singh, I. K.\***, Singh, A., Singh, S. and Kumar, S. (2017) *Genome-wide expression profiling of Maize in response to polyphagous herbivore Spodoptera litura* in "Maize Genetics Conference" held at St. Louise, Missouri, USA on March 9-12, 2017.

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24. Singh, A., **Singh, I. K.**, Kumar, S. and Singh, S. (2017) *Microarray analysis of Maize's early response to mechanical wounding and its comparison to Insect attack* in “**Maize Genetics Conference**” held at St. Louise, Missouri, USA on March 9-12, 2017.
25. **Singh, I. K.\***, Singh, A., Singh, S. and Kumar, S. (2017) *Expression profiling of Mitogen-activated Protein Kinase (MAPK) genes from Cicer arietinum in response to Helicoverpa armigera, wounding and signaling compounds* in “**American Society of Plant Biologists (Annual Meeting), Midwestern Section**” held at Purdue Memorial Union, Purdue University, West Lafayette, Indiana, USA on February 4 – 5, 2017.
26. Singh, A., **Singh, I. K.**, Nath, O., Kumar, S. and Singh, S. (2017) *Genome-wide identification of MAPK gene family in chickpea and expression analysis during development and stress response* in “**American Society of Plant Biologists (Annual Meeting), Midwestern Section**” held Purdue Memorial Union, Purdue University, West Lafayette, Indiana. USA on February 4–5, 2017.
27. Singal, B., Singh, A., Singh, S., Nath, O., Sanjay and **Singh, I. K.,\*** (2015) Functional annotation of the hypothetical proteins of *Neisseria meningitidis* H44/76. In: **Proc. International Conference on Mathematical and Computational Biology** IIT, Kanpur pp. 34-35. \*Corresponding author.
28. Nath, O., Singh, A., Singh, S., Singal B., Sanjay and **Singh, I. K.\*** (2015) Structural Homology modeling of Aspartate transaminase [*Bacillus Halodurans* c-125]. In: **Proc. International Conference on Mathematical and Computational Biology** IIT, Kanpur pp. 44-45. \*Corresponding author.
29. **Singh, I. K.\***, Nath O, Singh A., Singal B., Singh S. and Sanjay (2015) Identification of probable lead compounds for inhibition of CRY protein in *Pisum sativum* by structure modeling and pharmacophore designing. **Journal of Proteins and Proteomics** 6(1):24. (ISSN: 0975-8151) \*Corresponding author.
30. Singh, A., **Singh, I. K.** and Jain, D. (2015) *Functional characterization of Helicoverpa-inducible pathogenesis-related protein 4A (PR-4A) from chickpea* in “**Plant Biology 2015 (The Annual Meeting of the American Society of Plant Biologists)**” held at the Minneapolis Convention Center in Minneapolis, Minnesota USA from July 26 -30 2015.
31. **Singh, I. K.**, Tyagi, C. and Singh, A. (2015) *Mechanistic insights into mode of action of rice allene oxide synthase on hydroxyperoxides: an intermediate step in herbivory-induced jasmonate pathway* presented in the “**Plant biology 2015 (The Annual Meeting of the American Society of Plant Biologists)**” from 26th -30th July 2015 held at the Minneapolis Convention Center in Minneapolis, Minnesota USA.
32. Sanjay\*, Singh,S., Onkarnath, Singal B., **Singh I.K** (2015) *Development of Resistance in Malarial Vector* in “**National Symposium on Vector Biology and Vector Management**” held at Deshbandhu College on February 12, 2015.
33. Shefali and **Singh, I. K.** (2014) *Mobile Phones, Mini Radiators affecting Human Health* in “**International Conference on Radiation Biology 2014**” organized by Indian Society for Radiation Biology, and hosted by Institute of Nuclear Medicine and Allied Sciences (INMAS), Delhi from November 11-13, 2014.

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34. **Singh, I. K.,\*** Sanjay and Arora, A. K. (2014). Emergence of Nanotherapeutic agents in Cancer. In: *Proc. of T-NANO* Ahmedabad University, pp.172-175. \*Corresponding author.
35. **Singh, I. K.** and Singh, A. (2012) *Induced Plant defense in Cicer arietinum L. in Response to a Chewing Insect Helicoverpa armigera* presented in "**International Conference on Chemical Ecology 2012**" held at Max Planck Institute of Chemical Ecology, Jena, Germany from 7-8th December 2012
36. **Singh, I. K.** and Nath, O. (2011) *In Silico Structural and Functional Analysis of Pyruvate Dehydrogenase from Brugia pahangi* in "**I-ISC 2011**" on Bioinformatics: An Interface between Computer Science and Biology organized by CIRBS, Jamia Millia Islamia, New Delhi, India from November 15-17, 2011.
37. **Singh, I. K.,** Singh, A. and Singh, A. K. (2010) *Structural and functional analysis of Hevein-like Protein in Chickpea* presented in "**The 7<sup>th</sup> Indo-Australia Biotechnology Conference**" held at Queensland Medical Research Institute (QIMR), Brisbane, Australia from 25–27 October 2010.
38. Singh, A., **Singh, I. K.,** Kwatra, V. K. and Chandrasekharan, H. (2010) *Genome wide analysis of Ankyrin repeat proteins in Arabidopsis and Rice* in "**The 7<sup>th</sup> Indo-Australia Biotechnology Conference**" held at Queensland Medical Research Institute (QIMR), Brisbane, Australia from 25–27 October 2010.
39. **Singh, I. K.** and Singh, A. (2009) *In silico structure and function prediction of Hevein-like Protein of Arabidopsis thaliana* in "**Proc. Natl. Conf. Biodiversity & Agribiotechnology**" at Jaypee Institute of Information Technology (JIIT) University, Noida on April 25, 2009.
40. **Singh, I. K.** and Archana Singh (2008) "The Sourthern Green Stink Bug, *Nezara viridula* (L.): A Polyphagous Pest.
41. **Singh, I. K. (2003)** *Deleterious effects of Karanj leaves on the development and survival of Spodoptera litura* in "**National Symposium on Frontier Area of Entomological Research**" at Indian Agricultural Research Institute, New Delhi.
42. **Singh, I. K.** and Singh, A. K. (2003). *Deleterious effects of karanj leave on the development and survival of Spodoptera litura. Proc. Natl. Symp. Fron. Areas Entomol.* IARI New Delhi. pp. 587-588.

#### **Platform Invited Presentations at International Conferences/Meetings:**

1. **Feb 27, 2020:** Ist International Conference on Natural Products and Human Health 2020, University of Delhi, Delhi, India
2. **Feb 22, 2020:** 4<sup>th</sup> International conference Biosangam 2020, Prayagraj, UP, India
3. **Mar 11, 2017:** Maize Genetics International Conference, St. Louise, Missouri, USA
4. **Feb 4, 2017:** American Society of Plant Biologists (Annual Meeting), Purdue University, Indiana. USA

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5. **Dec 4-8, 2015:** Young Scientists Conference as a part of the India International Science Festival
6. **July 27, 2015:** "PLANT BIOLOGY 2015" (The Annual Meeting of the American Society of Plant Biologists) held at the Minneapolis Convention Center in Minneapolis, Minnesota USA
7. **Dec 16, 2014:** International Conference on Translational Nanomedicine, Ahmedabad, Gujarat, India
8. **Dec 08, 2012:** International Course on Chemical Ecology- 2012, Max-Planck Institute of Chemical Ecology, Jena, Germany
9. **Feb 9-11, 2011:** Indo -Swiss Collaboration in Biotechnology [ISCB] International Conference, University of Delhi
10. **Oct 26, 2010:** 7th Indo-Australia Biotechnology Conference, QIMR, Brisbane, Australia.

### ***Profession Training/ Workshops/International Courses:***

1. **Successfully completed** *"One-week online Faculty Development Programme on "Development and Delivery of MOOC's and E-Content"* jointly organized by Central of University of Haryana, Mahendragarh under the aegis of Pandit Madan Mohan Malviya National Mission on teachers and Teaching (PMMMNTT) and IQAC, Deshbandhu College, University of Delhi, New Delhi, from June 26 - July 1, 2020.
2. **Successfully completed** *"One-week Faculty Development Programme on Open Source Tools For Research"* sponsored by Ministry of Human Resource Development Pandit Madan Mohan Malviya National Mission on Teachers and Teaching held at Teaching-learning Centre Ramanujan College, University of Delhi from June 8-14,2020
3. **Successfully completed** *"One Week Faculty Development Program on Multimedia enriched e-Content Development"* jointly organized by Guru Anand Dev Teaching Learning Centre Khalsa College, University of Delhi under the Pandit Mohan Malviya National Mission on teachers and Teaching (PMMMNTT) of MHRD from May 21-26, 2020.
4. **Successfully completed** *"Two weeks Faculty Development Program-2018 on Entrepreneurship"* sponsored by Department of Science and Technology, Government of India, Jointly organized by Deshbandhu college, University of Delhi and ABES Engineering College Ghaziabad in association with Teaching Learning Centre, Under PMMMNTT Scheme of MHRD, Govt. of India, Ramanujan College held at Deshbandhu college, University of Delhi, New Delhi from December 13-27, 2018.
5. **Successfully completed** *"UGC Sponsored Refresher Course in Life Sciences & Biotechnology"* held at Human Resource Development Centre at Jawaharlal Nehru University, New Delhi, India from October 08 -November 02, 2018.
6. **Successfully completed** workshop on *"The Essential Skills for Next Generation Sequencing and Data Analysis"* conducted by University of Kentucky and Bluegrass Community & Technical College, sponsored by the Kentucky Biomedical Research Infrastructure Network on July 10-14, 2017.

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7. **Successfully completed** the "*Pest Control Short Course*" organized by College of Agriculture, Food and Environment, University of Kentucky, Lexington held on November 8-10, 2016.
8. **Successfully completed** training program on "*Biosafety, Autoclave, Hazardous Waste and Chemical Hygiene Plan*" held at College of Agriculture, Food and Environment, University of Kentucky, Lexington, USA from July 18-22, 2016.

#### **Participation (Conference/workshop)**

1. **Participated in** webinar series Alumni Association of JNU (AAJ) on "*Global Research Perspective to Pandemic Covid-19*" on June 13, 2020.
2. **Participated in** "*International Right to Information Day and Convention*" held at India International Centre, New Delhi on September 28 and N.D Tiwari Bhawan, New Delhi on September 29, 2018.
3. **Participated in** "*Fourth National Symposium on Environment: Green Technology for Environmental Sustainability*" held at Deshbandhu College, University of Delhi, Delhi on September 25, 2018.
4. **Participated in** the session "*Environmental Preservation in Vedas: Perspective for better future*" in National conference organized by Department of Education in Science and Mathematics, NCERT, New Delhi on July 19, 2018.
5. **Participated in** "*Group Monitoring Workshop*" for INSPIRE
6. Internship Science Camp Organizers, Organized by University of Science & Technology, Meghalaya held at Techno City, 9th Mile, Meghalaya on June 25-26, 2018.
7. **Participated in** workshop on "*Skill Development to Build a Clean India*" organized by Deshbandhu College in collaboration with CSR, Oil and Natural Gas Corporation Ltd., New Delhi held at Deshbandhu College Kalkaji, New Delhi on June 7 and 8, 2018
8. **Participated in** "*National Right to Information Summit 2018*" held at Naraindutt Tiwary Bhawan, New Delhi on March 15 and Gandhi peace foundation, New Delhi on March 16, 2018.
9. **Participated in** workshop on "*Technical Terminology in Science Teaching*" Deshbandhu College, University of Delhi from October 26-27, 2017.
10. **Participated in** workshop for "*Organizer of DST-INPIRE Internship Camps*" held at Goa University from March 12-13, 2016
11. **Participated in** workshop for "*Undergraduate science teachers*" organized under DBT Star College Scheme at Department of Zoology, Miranda House, University of Delhi on February 24-25, 2016
12. **Participated in** Conference entitled "*Training Program on Reservation and Exploration of Herbal Medicine Resources for Asian Countries*" at Beijing, P.R. China from August 19th to September 8, 2015
13. **Participated in** "*1st Plant Proteomics Workshop/ Training Program*" organized by Department of Botany, University of Delhi, New Delhi, India on December 26-30, 2013

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14. **Participated in** *“International course on Chemical Ecology “ICE-12”* at Max-Planck Institute of Chemical Ecology, Jena, Germany held from November 20 -December 7, 2012.
15. **Participated in** *“UGC Sponsored Refresher Course in Interdisciplinary Science”* held at UGC Academic Staff College, Jamia Millia Islamia, New Delhi, India from May 03 to May 23, 2012
16. **Participated in** *“UGC Sponsored Orientation Programme”* held at UGC Academic Staff College, Jamia Millia Islamia, New Delhi, India from September 30 to November 01, 2011.
17. **Participated in** workshop on *“Fundamental of Bioinformatics for Faculty of Life Sciences”* jointly organized by Institute of Life Long Learning (ILLL) and Ramjas College, University of Delhi from September 26-30, 2011.
18. **Participated in** workshop on *“Food, Nutrition and Health (Course code-LSPP 203) B.Sc. (Programme) Life Science Ist year”* at Lady Irwin College from February 10-12, 2011.
19. **Participated in** workshop attended on *“ Basic Training Workshop in Drosophila Genetics “* held at Department of Zoology, University of Delhi from November 13-14, 2010.
20. **Participated in** workshop entitled *“Bioinformatics: Unravelling Genes and Proteins”* organized by DS Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi from May 10-15, 2010.
21. **Participated in** workshop entitled *“Introduction to Bioinformatics”* at Biomedical Informatics Centre, Department of Biophysics, All India Institute of Medical Science from April 21-23, 2010.
22. **Participated in** *“National Training Program on Genomics, Proteomics, Drug Design, and High Performance Computing”* held at Supercomputing Facility for Bioinformatics (SCFBio), Indian Institute of Technology (IIT) Delhi from September 30, 2009 to October 06, 2009.
23. **Participated in** workshop on *“Easy Now - 2: A Workshop on Multimedia Content Development”* organized by Acharya Narendra Dev College and Commonwealth Educational Media Centre for Asia at Acharya Narendra Dev College, University of Delhi from April 20-25, 2009.
24. **Participated in** workshop on *“Development of online quizzes in Life Science”* at Institute of Lifelong Learning on April 16, 2009.
25. **Participated in** workshop on *“Learning of Content (LAC)-42- Workshop on Open Educational Resources”* organized by University of Delhi South Campus and Acharya Narendra Dev College University of Delhi South Campus with Support from Commonwealth of Learning, Vancouver, CANADA held from April 13-17, 2009
26. **Participated in** workshop on *“Science and Technology trends in India”* organized by the Institute for the Future (IFTF) at Sheraton Hotel in Saket and has been judged as a “Best participant in the life science” category and has been awarded an Honorarium of US\$200 on June 12, 2008.
27. **Participated in** workshop cum training on *“Bioinformatics Application in Agricultural Research”* sponsored by the Department of Biotechnology, Government of India, from February 25-27, 2008.



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28. **Participated in** workshop for practical training on “*Genetics, Genomics and Biotechnology*” organized by Department of Zoology, University of Delhi, Delhi from August 10-12, 2006.
29. **Participated in** Summer training for six months in a project on “*Functional genomics of chickpea- Helicoverpa interaction*” from June 1 to July 15, 2006.
30. **Participated in** workshop on “*Lecture workshop in Molecular Endocrinology & Gamete Biology*” from October 3-4, 2005.
31. **Participated in** “*National Workshop in Bioinformatics and Computational Biology*” organized by Department of Biochemistry, Sri Venkateswara College held from April, 18-22, 2005
32. **Participated in** “*Workshop on Biotechniques*” organized at Centre for Biochemical technology {CSIR} from January 11-13, 2002.

### OUTREACH

#### Significant Outcomes of Research Projects:

- Under the Maize-Spodoptera project, I have explored the molecular mechanism behind maize tolerance against *S. litura*, using a microarray-based genome wide expression analysis. Applying this natural phenomenon of the integrated approach of defense and tolerance in integrated pest management will be a superior insect pest management strategy.
- Under the AKR1C1 project, we have identified compounds that may be exploited in hit-to-lead development for treatment of breast, endometrial and cervical cancer. Though the current study focused on the role of AKR1C1 as an emerging cancer target, other functions of this enzyme (both catalytic and non-catalytic) are also becoming evident, including the role of AKR1C1 in pre-term birth.
- Under the innovation project “The impact of lifestyle change during adolescence on lifestyle chronic Diseases”, I was able to assess the major factors that lead to chronic diseases in adolescents. This study helped us to establish smoking and alcohol consumption emerged as major contributors to disease burden among adolescents.
- Designed a computational tool - NeuroPIpred that can predict, design and scan insect neuropeptides. Insect neuropeptides can act as potential targets for pest control.
- Published several research papers, book chapters and edited four books, including ‘**Molecular aspects of plant-pathogen interaction**’ and ‘**Plant-Pest Interactions: From Molecular Mechanisms to Chemical Ecology**’ by Springer-Nature.

#### Significant Contribution at School Level

- Coordinator for DST INSPIRE Internship program where almost 1400 students have participated in the span of seven years.
- Selected/nominated as Mentor by INSA among the 2000 researchers to inculcate scientific temper and provide guidance to students in top 1% in CBSE class 10 across India.
- Also, delivered more than 20 talks as Mentor in Inspire-Internship Program at various other Science camps across India.
- Member of Course Curriculum Development Team of Biotechnology for higher secondary stage class XI & XII at NCERT.

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- Co-authored textbooks on 'Evolution', 'Molecular Basis of Inheritance' and 'Heredity and Variation' for class XII for new CBSE international.

#### Significant Contribution at College/University Level

- Head, I4 Center and Coordinator for DBT STAR COLLEGE scheme & DBT-NII Science SETU at Deshbandhu College.
- Served as PIO (2012-19), Organizer and Organizing Committee Member for various National and International Conferences.
- **Member of** Departmental Research Committee (DRC), Central Evaluation Centre-DBC, Committee of Courses for UG and PG, Zoology, CBCS Syllabus Committee, College NAAC Committee, College IQAC Assessment Committee, and Science Research and Innovation Committee, among others.

#### Resource Person:

1. Invited as a **Resource person** in editing and reviewing "*Biotechnology Textbooks and Laboratory Manuals for class XI and XII*", from December 2017 to March 2021.
2. Invited as a **Resource person** in "*Development of the syllabus and Practical Manual of Biotechnology for higher secondary stage*" organized by DESM, NCERT, New Delhi from March 1-5, 2020.
9. Invited as a **Resource person** in "*Two weeks Faculty Development Program-2018 on Entrepreneurship*" sponsored by Department of Science and Technology, Government of India, Jointly organized by Kalindi College and Mahatama Hansraj Faculty Development Centre (MHRFDC) Hansraj College, University of Delhi under PMMMNTT Scheme of MHRD, Govt. of India, from December 17-23, 2019.
3. Invited as a **Resource person** in "*Development of syllabus and textbook of Biotechnology for higher secondary stage class XII*" organized by DESM, NCERT, New Delhi from July 22-26, 2019.
4. Invited as a **Resource person** in "*Development of textbook in Biotechnology for higher secondary stage*" organized by Department of Education in Science and Mathematics, NIE, NCERT, New Delhi, from March 17- 19, 2019.
5. Invited as a **Resource Person** in "*Science camp under Inspire internship program*" organized by DST held at Shri Ram Murti Smarak College of Engineering and Technology, Bareilly from January 18 -22, 2019.
6. Invited as a **Resource person** in "*45<sup>th</sup> Jawaharlal Nehru National Science, Mathematics and Environment Exhibition 2018*" organized by School Education Department Gujrat and NCERT New Delhi, at Ahmedabad, Gujrat from November 23-27, 2018.
7. Invited as a **Resource person** in "*Development of syllabus and textbooks of Biotechnology for higher secondary stage*" organized by DESM, NCERT, NIE campus New Delhi from September 29-October 2, 2018.
8. Invited as a **Resource person** in "*Development of a video guide on the use of upper primary science kit*" in the division of educational kits developed by DEK, NCERT" at Division of

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Educational kits, NCERT, New Delhi from September 10-14, 2018.

9. Invited as a **Resource person** in "*Development of syllabus and textbooks of Biotechnology for higher secondary stage*" organized by DESM, NCERT, NIE campus, New Delhi from August 27-31, 2018.
10. Invited as a **Resource person** in "*Development of syllabus and textbooks of Biotechnology for higher secondary stage*" organized by DESM, NCERT, NIE campus, New Delhi from July 04-07, 2018.
11. Invited as a **Resource person** in "*Development of syllabus and textbooks of Biotechnology for Higher secondary stage*" organized by DESM, NCERT, NIE campus, New Delhi from February 17-21, 2018.
12. Invited as a **Resource person** in "*Development of syllabus and textbooks of Biotechnology for higher secondary stage*" organized by DESM, NCERT, NIE campus, New Delhi from December 13-17, 2017.
13. Invited as a **Resource Person** in "*Development of E-resources in biology for higher secondary stage*" organized by DESM, NCERT, NIE campus, New Delhi from November 23-27, 2017.
14. Invited as a **Resource person** in "*44<sup>th</sup> Jawaharlal Nehru National Science, Mathematics and Environment Exhibition 2017*" organized by School Education Department, Madhya Pradesh and NCERT New Delhi at Bhopal (M.P.), India from October 10-16, 2017.
15. Invited as a **Resource person** in "*Orientation of key resource persons in biology at higher secondary stage*" organized by DESM, NCERT, NIE campus, New Delhi from February 1-5, 2016.
16. Invited as a **Resource Person** in "*Inspire Internship Program*" held at Shri Ram Murti Smarak Women College of Engineering & Technology, Bareilly (U.P.), on November 27, 2015.
17. Invited as a **Resource Person** in "*6<sup>th</sup> workshop on field trial and finalization of training package in biology at higher secondary stage*" organized by DESM, NCERT, NIE campus, New Delhi from March 26-30, 2015.
18. Invited as a **Resource Person** in the workshop entitled "*Field trial and finalization of training package in biology at higher secondary stage*" organized by Division of Educational Kits, NCERT, NIE campus, New Delhi from February 2-6, 2015.
19. Invited as a **Resource Person** in "*Inspire Internship Program*" held at Shri Ram Murti Smarak Women's College of Engineering & Technology, Bareilly (U.P.) on November 29, 2014.
20. Invited as a **Resource Person** in "*Design and development of biology kits for higher secondary stage*" at Division of Educational kits, NCERT, New Delhi on February 2, 2015.

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21. Invited as a **Resource Person** in "*Field trial and finalization of the training package in biology at higher secondary stage*" conducted at DESM, NCERT, NIE Campus, New Delhi on August 13, 2014.
22. Invited as **Resource Person** in '*Critical appraisal and training on recent advances in life sciences*' organized by CPDHE, University of Delhi, New Delhi on June 4, 2005.

#### **Jury Member / Guest of Honor:**

1. **Member jury** in "*International Conference on Natural Products and Human Health-2020 (ICNPHH-2020)*" organized by Department of Zoology, Deshbandhu College, University of Delhi, New Delhi from February 27-29, 2020.
2. **Guest of Honor and keynote speaker** in "*National conference seminar on Bioinformatics: Concepts, Applications & Skill Development*" organized by Department of Botany, Multanial Modi College. Modinagar, Ghaziabad on February 8, 2020.
3. **Guest of Honor** in "*Inter-School Science Festival*" held at The Indian School, New Delhi, on August 19, 2019.
4. **Chairperson** in "*Biomedicon-2018*" held at Kirori Mal College, University of Delhi, Delhi, India.
5. **Member jury** in poster presentation session of "*Fourth National Symposium on Environment: Green Technology for Environmental Sustainability*" held at Deshbandhu College, University of Delhi, New Delhi from September 25, 2018.
6. **Judge** in "*33<sup>rd</sup> Annual Kentucky American Water- Fayette County Public Schools District Science Fair*" held at Bryan Station High School, Lexington, Kentucky, USA on February 11, 2017
7. **Member Jury** for INSPIRE Award in "*National level Exhibition and Project Competition (NLEPC)-2015*" held at IIT Delhi, organized by Department of Science & Technology, Govt. of India from December 7-8, 2015.
8. **Member jury** for INSPIRE Award in "*National level Exhibition and Project Competition (NLEPC)-2014*" by Department of Science & Technology, Govt. of India held at Pragati Maidan New Delhi Organized from October 6-8, 2014.
9. **Guest of Honor** in "*Inter-school Disciplinary Symposium – Pratidhwani*" at St. Marks School, Safdarjung Enclave, New Delhi on August 22, 2014.
10. **Member Jury** for INSPIRE Award "*National level Exhibition and Project Competition (NLEPC)-2013*" Organized by Department of Science & Technology, Govt. of India held at Pragati Maidan New Delhi from October 8-10, 2013.
11. **Member Jury** in "*10th CBSE Regional Level Science Exhibition 2013*" held at The Indian School, New Delhi on August 29-31, 2013.

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12. **Guest of Honor** in annual program '*Sankalan-2012-2013-Genesis-O-Metric*' held at Kalka Public School, Alaknanda, New Delhi, on December 15, 2012.
13. **Member Jury** in "*9th CBSE National Science Exhibition 2012*" held at St. Xavier's School, Raj Nivas Marg, New Delhi on October 31, 2012
14. **Member Jury** for INSPIRE AWARD in "*National level Exhibition and Project Competition (NLEPC)-2012*" organized by DST Govt. of India. Pragati Maidan New Delhi from October 21-23, 2012.

**Invited speaker :**

1. **Delivered a talk** on "*Tackling human disposal challenges during COVID-19*" in International conference on challenges and strategies in reproductive and environment health with special reference to COVID-19 (ISSRF-2021) held on february 19-21,2021
2. **Delivered a talk on** "*RNA interference & omics-based methods in IPM*" in IPM: Effective, Economical, and Eco- friendly ways of keeping insect pests at bay organized by Hindu College, University of Delhi, and Cotton University, Assam from September 26-November 28, 2020.
3. **Delivered a talk** on "*COVID-19 Treatment and vaccine candidates: Gearing up for Global Recovery*" online in "Inter- School Science Festival" held at The Indian School, New Delhi, on August 10, 2020.
4. **Delivered a talk** on "*Potential of gene silencing and omics in IPM*" held at Daunagar College, Aurangabad (Bihar) (Magadh University, Bodhgaya) from July 23- 24, 2020.
5. **Delivered a talk** on "*Crafting insect-specific tools for IPM using RNA interference & omics techniques*" in an International Conference on Natural Products and Human Health (ICNPHH-2020) held at Deshbandhu College, University of Delhi, New Delhi from February 27-29, 2020.
6. **Delivered a talk** on "*Potential of omics technologies and RNAi in Insect Pest Management*" in International conference-BioSangam 2020 held at MNIT, Allahabad on February 22, 2020.
7. **Delivered a talk** on "*In the era translational research: Insight into the role of In silico techniques in biology in facets of research in biology*" held at Swami Shraddhanand College, University of Delhi, New Delhi on February 20, 2020.
8. **Delivered a talk** on "*In the era of translational research – Insights into the role of In silico techniques in an add-on course*" held at Swami Shraddhanand College, University of Delhi, New Delhi on February 13, 2020.
9. **Delivered a talk** in National Seminar on "*Bioinformatics: Concepts, Applications and Skill Development*" held at Department of Botany Multinational Modi College Motinagar Gaziabad (U.P) on February 8, 2020.

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10. **Delivered a talk** on "*Era of translational research: Insights into the role of In silico techniques*" organized by ABESEC startups lab (Business incubator supported by ABES-EC & Meity, Govt. of India) at IFTM University, Moradabad, Uttar Pradesh, India from January 13-25, 2020.
11. **Delivered a talk** on "*Research & Development for Innovation and New Startups*" in two week Faculty development programme on Entrepreneurship at IFTM University, Moradabad from January 13-25, 2020.
12. **Delivered a talk** on "*Application of basic biostatistics in the field of biomedical sciences*" in FDP on recent trends in research methodology held at Kalindi College, University of Delhi, New Delhi on December 23, 2019.
13. **Delivered a talk** on "*Computer-aided drug designing (CADD): a breakthrough in the field of medicine*" held at The Indian School, New Delhi on August 19, 2019
14. **Delivered a talk** on "*How to get published research paper in right journals*" held at Hansraj college, University of Delhi, New Delhi on October 27, 2018
15. **Delivered a talk** on "*How DNA has changed our lives?*" held at The Indian school on August 13, 2018.
16. **Delivered a talk** on "*Towards achieving creativity, style and structure in scientific writing*" held at Zakir Husain Delhi College, University of Delhi, New Delhi on July 16, 2018.
17. **Delivered a talk** on "*RNAi concept and its application in insect-plant management*" in an add on course "Biotechcellence: Insights & Innovations, Gargi college, New Delhi on January 20, 2018.
18. **Delivered a talk** on "*Present scenario of Bioinformatics or Biotechnology in India*" Inspire Internship Program held at SRM University Ghaziabad, U.P. on June 9, 2016.
19. **Delivered a talk** on "*Present Scenario of Bioinformatics or Biotechnology in India*" n DST- Inspire Internship Science Camp held at SRM University, Ghaziabad, U.P. on June 6, 2016.
20. **Delivered a talk** on "*Important concepts & Hard Spot in Biology with exemplar problems*" in orientation of key resource person in biology at Hr. Secondary stage held at NIE Campus, NCERT, New Delhi on February 5, 2016.
21. **Delivered a talk** on "*Identification of probable lead compounds for inhibition of CRY protein in Pisum sativum by structure modeling and pharmacophore designing*" in National Symposium on Biophysics held at Jamia Millia Islamia, New Delhi on February 17, 2015.
22. **Delivered a talk** on "*RNAi Application in agriculture pest management*" in Inspire Internship Program held at Shri Ram Murti Smarak Women College of Engineering & Technology, Bareilly (U.P.), on December 1, 2015.

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23. **Delivered a talk** on "*Application of gene silencing in insect pest management*" in Inspire Internship Program held at Hi-Tech Institute of Technology, Ghaziabad from November 24-28, 2015.
24. **Delivered a talk** on "*IPM – current status and challenges*" Inspire Internship Program held at Hi-Tech Institute of Technology, Ghaziabad on July 21, 2015.
25. **Delivered a talk** on "*Functional annotation of hypothetical proteins of Neisseria meningitidis H44/76*" in International Conference on Mathematical and Computational Biology (ICMCB) held at IIT Kanpur from February 28- March 3, 2015
26. **Delivered a talk** on "*How model organism helpful to study human disease*" in Inspire Internship Program held at Hi-Tech Institute of Technology, Ghaziabad on February 24, 2015.
27. **Delivered a talk** on "*Computational biology and molecular docking*" in Innovision 2014 at Netaji Subhash Institute of Technology, New Delhi on February 16, 2015.
28. **Delivered a talk** on "*Bioinformatics and its application in present scenario*" in Inspire Internship Program held at College of Basic Sciences, CSK HP Krishi Vishvavidyalaya, Palampur (H.P.) on December 30, 2014.
29. **Delivered a talk** in "*Using molecular biology technique in disease diagnosis*" in Inspire internship by DST held at Shri Ram Murti Smarak College of Engineering & Technology, Bareilly (U.P.) on November 27, 2014.
30. **Delivered a talk** on "*Drosophila: A Model Organism*" in the DST Inspire Program held at Hi-Tech Institute of Technology, Ghaziabad on November 21, 2014.
31. **Delivered a talk** on "*Social insects and honeybee communication*" in DST inspire program held at Hi-Tech Institute of Technology, Ghaziabad on August 28, 2014.
32. **Delivered a talk** on "*Ecological sampling within campus*" at Hr Secondary stage at DSEM, NCERT, NIE Campus, New Delhi on August 13, 2014.
33. **Delivered a talk** on "*A deeper look into the Human genome project*" Inspire Internship Program held at Raj Kumar Goel Institute of Technology for Women Ghaziabad on August 3, 2014.
34. **Delivered a talk** on "*Application of computer Science in Modern Biology*" held at KIIT College of Engineering, Gurgaon on August 1, 2014.
35. **Delivered a talk** on "*Plant and insects: Friends or foes?*" in DST Inspire Internship Program held at Hi-Tech Institute of Technology Ghaziabad on June 18, 2014.
36. **Delivered a talk** on "*Innovations in research and developments in Zoology*" in Inspire Internship Program held at Hi-Tech Institute of Technology, Ghaziabad on January 8, 2014.



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37. **Delivered a talk** on "*Career opportunities in Life Sciences*" in Inspire Internship Program held at Hi-Tech Institute of Technology, Ghaziabad on November 6, 2013.
38. **Delivered a talk** on "*Application of Bioinformatics in Biological Sciences Research*" in Science Camp Inspire Internship Scheme by DST held at Raj Kumar Goel Institute of Technology, Ghaziabad on July 11, 2013.
39. **Delivered a talk** in "*Computational approaches to decipher novel targets in Cancer*" at Netaji Subhash Institute of Technology (NSIT) Dwarka, New Delhi on February 16, 2014.
40. **Delivered a talk** on "*Bioinformatics - Introduction and its application in present scenario*" in Inspire Internship Program held at DCTM, Faridabad on August 12, 2012.
41. **Delivered a talk** on "*Bioinformatics: Introduction and its application in present scenario*" in Science camp sponsored by DST at Delhi College of Technology and Management, Palwal, Haryana on August 12, 2012.
42. **Delivered a talk** on "*Recent innovations and career perspective in Earth sciences*" in Inspire internship summer camp -2011 held at Department of Pharmaceutical Sciences, Saurashtra University, Rajkot on May 4, 2011.
43. **Delivered a talk** on "*An Introduction to Biological Data Mining*" in National workshop-cum-training at Indian Agricultural Research Institute (IARI), New Delhi on March 23, 2011
44. **Delivered a talk** on "*Omics approaches in Health Sciences*" in Science Camps for CPFS Interns under the DST-INSPIRE Scheme held at Centre for Philosophy and Foundations of Science (CPFS), New Delhi on November 4, 2010
45. **Delivered a talk** on "*Genomics Concepts and Applications*" in National workshop-cum-training held at Indian Agricultural Research Institute (IARI), New Delhi on December 21, 2009
46. **Delivered a talk** on "*Application of Computational biology in drug designing*" in Inspire internship summer camp -2011 held at Department of Pharmaceutical Sciences, Saurashtra University, Rajkot on May 4, 2009
47. **Delivered a talk** on "*Application of Bioinformatics*" in Training Program for Kabul University Faculty member in Biology held at Hans Raj College University of Delhi, New Delhi on June 10, 2008.

**Program Organization/Coordinator:**

1. **Member of Organizing Committee** in "*ICNPHH-2020 (International Conference in Natural Products and Human Health)*" held at University of Delhi from February 27-29, 2020.
2. **Member of Organizing Committee** in "*National Seminar on Bioinformatics: Concepts, Applications and Skill Development*" organized by Department of Botany Multinational Modi College Motinagar Ghaziabad (U.P) held on February 8, 2020.

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3. **Organizer** of National conference on “ Pharmacovigilance: Advancements in Safe Drug Development” held at Deshbandhu College, University of Delhi on January 16-17, 2020.
4. **Coordinator** of *"Inspire Internship- 2019"* sponsored by DST, Government of India at Deshbandhu College, University of Delhi from December 17-21, 2019.
5. **Organizing Secretary** of *"National Conference on Insect-Plant Biology"* Sponsored by UGC, DBT, Government of India and IQAC Deshbandhu College, University of Delhi from November 4-5, 2019.
6. **Member of Advisory Committee** in *"1st International Conference on Integrative Chemistry, Biology and Translation Medicine"* organized by the Centre for Global Health, Hansraj College, University of Delhi and Loyola University Chicago Stritch School of Medicine, USA from February 25-26, 2019.
7. **Coordinator** of DST sponsored *"Two weeks Faculty Development Program- 2018"* organized by Deshbandhu College, University of Delhi and ABES Engineering College, Ghaziabad in association with Teaching Learning Centre, Under PMMMNMTT Scheme of MHRD, Govt. of India at Ramanujan College, Delhi from December 13-27, 2018.
8. **Conducted** activity *"DNA extraction from cheek cells"* conducted during the 45th JNNSMEE at Bhopal from November 23-27, 2018.
9. **Organizing Secretary** of *"Fourth National Symposium on Environment: Green Technology for Environmental Sustainability"* held at Deshbandhu College, University of Delhi, Delhi on September 25, 2018
10. **Coordinator** of *"Inspire Internship science camp under the Inspire internship component of INSPIRE program"* at Deshbandhu College, University of Delhi during 2017-2018.
11. **Coordinator** of *"Inspire Internship 2017"* sponsored by DST, Government of India at Deshbandhu College, University of Delhi from December 18-22, 2017.
12. **Coordinator** of Science Ambassador Program by Bio-Rad Laboratories (India) and organizes its launch program **"1<sup>st</sup> Science Ambassador Program 2017"** in association with Deshbandhu College, DU at St. Thomas Sr, Sec. Girls School, New Delhi on October 6, 2017.
13. **Member of Organizing Committee** in *"Proceedings of National Symposium on Environment: Challenges Generation Next"* on March 31, 2017
14. **Member of Organizing Committee** in *"2<sup>nd</sup> National Symposium on Environment: Greener future & awareness"* held at Deshbandhu College, New Delhi on March 19, 2016.
15. **Member of Organizing Committee** in *"National Symposium on Reproductive Health in India: Concerns and Awareness"* held at Deshbandhu College on February 12, 2016
16. **Organizer** of a workshop on *"DNA Fingerprinting"* held on January 22, 2016
17. **Coordinator**, organized an Invited talk under edges of **SCIENCE-SETU** title *"Green Engines of Change: Plants that Influenced India and the World"* by Dr. S. Natesh, Consultant Advisor,

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National Institute of Immunology, New Delhi on January 25, 2016.

18. **Coordinator** of "*Inspire Internship- 2015*" sponsored by DST, Government of India at Deshbandhu College, University of Delhi from December 14-18, 2015.
19. **Member of Expertise Committee** in "*Finalizing the key of National Talent Search Examination*" at Zakhir Hussain Block, NCERT on July 15, 2015.
20. **Member of Organizing Committee** in "*National symposium on Vector Biology and Vector Management*" held at Deshbandhu College on February 12, 2015.
21. **Member of Organizing Committee** in "*National Symposium on Environment: Challenges and Awareness*" held at Deshbandhu College, University of Delhi on November 5, 2014.
22. **Coordinator** of "*Inspire Internship- 2014*" sponsored by DST, Government of India at Deshbandhu College, University of Delhi from October 8-12, 2014.
23. **Organizing member** of "*Inspire Internship Camps – 2014*" sponsored by DST Government of India at KIIT University, Bhubaneshwar from May 29-30, 2014.
24. **Coordinator** of "*National workshop on Applied Genomics and Proteomics*" organized by Deshbandhu College, University of Delhi from March 12-14, 2014.
25. **Coordinator** of "*Inspire Internship- 2013*" sponsored by DST Government of India at Deshbandhu College, University of Delhi from December 16-20, 2013.
26. **Dy. Coordinator** in "*Inspire Internship- 2013*" sponsored by DST, Government of India at Kirori Mal College, University of Delhi from December 21-25, 2013.
27. **Organizer** of "*DST Inspire – Interns Science Camps*" conducted by Pondicherry University, Brookashabad campus and DST New Delhi, Government of India at Port Blair, A & N Islands from April 11-12, 2013
28. **Dy. Coordinator** of "*Inspire Internship- 2012*" sponsored by DST Government of India at Hans Raj College, University of Delhi from December 17-21, 2012.
29. **Coordinator** of "*Inspire Internship- 2012*" sponsored by DST Government of India at Deshbandhu College, University of Delhi from October 1-5, 2012.

#### ***Special Recognitions***

1. Member of Internal Assessment Monitoring Committee of the College consisting for the academic year 2020-2021
2. Member of Quality Improvement Programme Cell, NSIT, Delhi for selecting candidates for Ph.D. Admission. 2016-2018.
3. Referee for the grant proposals from Science for Equity Empowerment and Development Division, Department of Science & Technology, Govt. of India.
4. Member of the Standing committee for Implementation' Scholarship for Higher Education (SHE) component of INSPIRE, Department of Science & Technology, Govt. of India. (2016-2019)

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5. Member of committee for M.Sc. Bioinformatics Major Project Evaluation and Examination, Department of Computer Science, Jamia Millia Islamia, New Delhi. (2013-2016)
6. Member course-committee UG and PG up to December 2019.
7. Member Departmental Research committee 2018- 2020.

**National/International Scientific Services: Membership Scientific Body:**

- American Mosquito Control Association (AMCA) 2016-Onwards.
- Member of Entomological Society of India.
- Life Member of Indian Biophysical Society.
- Life Member of Association of Indian Microbiologists of India.

**Reviewers for the following international journals:**

- Computational Biology and Chemistry (Elsevier).
- Gene (Elsevier).
- Plant Physiology and Biochemistry (Elsevier).
- Chemistry and Biodiversity (Wiley).
- International Journal of Plant Production – (Springer).
- Journal of Food Composition and Analysis (Elsevier).
- Insect Science (Wiley).
- Journal of Chemical Information and Modeling (ACS).
- Anti-Cancer Agents in Medicinal Chemistry (Bentham Science).
- Current Bioinformatics (Bentham Science).
- American Journal of Bioscience and Bioengineering (Science PG).
- IJKT (CSIR- NISCAIR)

**Editorial Board member of the following journals:**

- Scientific Reports (Springer-Nature)
- International Journal of Biotechnology & Biochemistry (IJBB)
- Journal of Computational Intelligence in Bioinformatics (JCIB)
- International Journal of Environmental Research and Development (IJERD)
- Chemical Biology Letter (CBL)

**Invited Panelist/Expert on DUCR FM Radio:**

- Discussion **panelist** on "Plant – Insect Interaction" at **DUCR FM 90.4** (Broadcasted on air in March 2012) in the program "VIGYAN HAMARE AAS PAS" Sponsored by DST, Govt. of India.
- Discussion **panelist** on Topic- "Bt crop: Say Yes or No" at **DUCR FM 90.4** (Broadcasted on air in April 2012) in the program "VIGYAN HAMARE AAS PAS" Sponsored by DST, Govt. of India.
- CoDiscussion **panelist** on Topic- "Nanotechnology and its applications" at **DUCR FM 90.4** (Broadcasted on air in June 2012) in the program "VIGYAN HAMARE AAS PAS" Sponsored by DST, Govt. of India.

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**Corporate life contribution at University/Department Level:**

- *Member*, Departmental Research Committee (DRC), Zoology, Delhi University: **(2018-20)**
- *Member*, Committee of Courses for UG and PG, Zoology: **(2017-19)**
- *Member*, CBCS Syllabus Committee: **(FYUP 2015 & CBCS 2019)**
- *Dy. Cordinator*, Cental Evaluation Centre-DBC: **(2016 & 2018)**

**College/Department Level:mem**

- *Member*, College NAAC Committee: **(2019-20)**
- *Member*, College IQAC Assessment Committee: **(2019-20)**
- *Member*, Science Research and Innovation Committee: **(2019-20)**
- *Member*, College IQAC Assessment Committee: **(2018-20)**
- *Member*, Development Fund Committee: **(2018-19)**
- *Member*, Prospectus Committee: **(2018-19)**
- *Member*, NAAC Committee: **(2014-15, 2018-19)**
- *Member* of IQAC Committee: **(2018-19)**
- *Member* of Science Research and Innovation Committee: **(2018-19)**
- *Convenor*, Purchase Committee: **(2013-15)**
- *Convenor*, Proctorial Committee: **(2017-19)**
- *Member*, Science Research and Innovation Committee: **(2018-Contd.)**
- *Member*, College Internal Assessment Committee: **(2019- Contd)**
- *Member*, Development fund committee: **(2013-14, 2017-18)**
- *Member*, Proctorial Committee: **(2009-10, 2013-14, 2017-18)**
- *Member*, Student Union Election Committee: **(2009-14, 2015-19)**
- *Member*, Annual Day Celeberation Committee: **(2009-12, 2013-14, 2015-16, 2017-18)**
- *Member*, Student Grievances Committee-Admission: **(2014-16, 2017-18)**
- *Member*, Canteen Committee: **(2014-15)**
- *Member*, Purchase Committee: **(2011-13, 2015-16)**
- *Member*, Prospectus Committee: **(2012-13, 2014-15, 2016-17)**
- *Member*, Annual Day Program Committe **(2016-17)**
- *Member*, Building and Furniture Maintainance Committee: **(2011-13, 2015-16)**

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- *Member, Cultural Committee:* (2008-13)
- *Member, Internal Assessment Committee (Student)* (2008-12, 2020-21)
- *Member, College NAAC Committee:* (2014-15,2016-17)
- *Member, IT Infrastructure Development Committee* (2017-18)
- *Member, Bachelor's degree core course committee IGNOU* (2019-Contd)
- *Member, Library stock verification Committee* (2017-18)
- *External Examiners, Internal Examiners, Invigilation's duties,* (2009-Contd)
- *Paper Setting (Examiner) and Paper Evaluations:* (2009-Contd)

**-Dr. Indrakant K Singh**