Dr. Anand Kumar

Ph.D. (IIT-BHU)

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DOB: 04/05/1988



Last Job: Assistant Professor, Department of Biotechnology, Rama University, Kanpur

Career Objective.

To serve an organization which provides challenging assignments to bring out the best of my creative potential, which gives an environment to learn new things constantly and which supports me to excel in my field of endeavor.

ACADEMIC QUALIFICATION

2017: Ph.D. (Biotechnology) Indian Institute of Technology. (Ist Division) CGPA-8.8

2010: M.Sc., (Plant Biotechnology) Banaras Hindu University, (Ist Division) CGPA-7.61

2008: B.Sc., M.J.P.R. University Bareilly, (Ist Division) Percentage -62.7

2005: Intermediate, Uttar Pradesh Board, (I^{st} Division) Percentage-68.00

2003: High School, Uttar Pradesh Board, (Ist Division) Percentage-62.50

RESEARCH EXPERIENCE

- 1. Research Associate (8th May 2018–10th December 2018) in the ICAR-National Fellow Project (in DCFR, Bhimtal) entitled "Development of a method for detecting the presence of any viral signal in clinical samples of fish." (Post-Doctoral)
- Senior Research Associate (16th January 2019 to 26th August 2019) in World bank funded project (IVRI, Izatnagar) entitled "Expression of capsid protein of PCV-2 in the baculovirus expression system.". (Post Doctoral)

- 3. Senior Research Fellow (26 September 2017 -28th April 2018) in DBT project (IVRI, Izatnagar) entitled "Development of RNA-guided recombinase (RGR) platform for targeted DNA integration. (Post-Doctoral)
- Junior Research Fellow (August 2011-September 2012) in DBT project (IVRI, Izatnagar) entitled
 "Development of user-Friendly Diagnostic Kit for the detection of Bovine Herpes Virus-1". (Prior to doctorate degree)

Teaching Experience.

- 1. **Assistant Professor** (27th August 2019 to 15th July 2021) Department of Biotechnology, Rama University, Kanpur.
- **2.** Teaching Assistant (21st September 2012 to 25th September 2017) in School of Biochemical Engineering, Indian Institute of Technology (BHU),
- **3. Lecturers** (10th Nov. 2010 to 30th June 2011) in Biotechnology department, Bareilly College Bareilly, M.J.P. University, Bareilly.

Patents:

1. Anand Kumar, Techniques and systems for co-culture study to make it user-friendly. Application number: 202011048458 -Published

Research Publications:

- 1. **Anand Kumar**, Subir Kundu, Mira Debnath (Das) (2018) Effects of the probiotics *Lactococcus lacttis* (MTCC-440) on *Salmonella enterica* serovar Typhi in co-culture study, *Microbial Pathogenesis*, 120. 42-46.
- 2. **Anand Kumar**, Subir Kundu, Mira Debnath (Das) **(2017)** Expression, purification and evaluation of recombinant lipoprotein of *Salmonella typhi* as a vaccine candidate. *Biologicals*, 46:108–113.
- 3. **Anand Kumar**, Sada Shiva Naravarjula, Mira Debnath Das (2016) Molecular and immunological characterization of Lp1, the 34 kDa outer membrane lipoprotein of *Pseudomonas aeruginosa*, *Biologia* 71(7):743–747.

- 4. **Anand Kumar**, Shiv Kumar, Subir Kundu, Mira Debnath (Das) **(2016)** Homology modeling of outer membrane lipoprotein of *Salmonella typhi. Research in Environment and Life Sciences*, 9(7): 900–902.
- 5. **Anand Kumar**, Shiv Kumar Verma, Ashish, Dhiraj Kumar Choudhary, **(2014)**. Biochemical and molecular characterization of antagonistic bacteria against yellow blotch of oyster mushroom. *IJRET*, 3(4):294–297.
- 6. Shiv Kumar Verma, **Anand Kumar**, Moti Lal, Mira Debnath (Das) (2016). Antimicrobial activity of endophytic fungal isolate in *Calotropis procera* root. *Research in Environment and Life Sciences*, 9 (2):212-216
- 7. Dhiraj Kumar Choudhary, Shiv Kumar Verma, **Anand Kumar (2016)** High frequency of shoot regeneration on nodal explants of *Bacopa monnieri* A high value medicinal plant, *Research in Environment and Life Sciences*, **9**(5):553–557
- 8. Shiv Kumar Verma, Dhiraj Kumar Choudhary, **Anand Kumar**, Ashish, Moti Lal **(2015)** Plant regeneration of *A. lakoocha* from Encapsulated nodal explants. *Archives of Applied Science Research*, 7(1):22–27
- 9. Divyani Gupta, Anand Kumar (2020) Comparative assessment of restriction endonuclease pattern among Cholera Species in Clinical and environmental Samples, **Journal of Natural Remedies** Vol. 21, No. 4;pp.1-6
- 10. Divyani Gupta, Anand Kumar (2020) A perspective on Cholera pandemic, *Journal of critical reviews,* Vol 7, Issue 09,
- 11. Shweta Tiwari and Anand Kumar (2020) Functional Characterization and evaluation of plant growth potential in PGPR from soil, *Journal of Critical Reviews*, Vol 7, Issue 09.
- 12. Shweta Tiwari and Anand Kumar (2020) Indole acetic acid production and its quantification from microorganisms of rhizosphere, Bioscience, Biotechnology Research Communications, Vol 13 (3). ISSN: 2321-4007.

Book Publications:

- 1. Basic Concepts of molecular biology, Edububs publication (2020) ISBN: 9788194292630
- 2. Mushroom Disease; control by bio-control agent, published in Lambert Academic Publishing (LAP) ISBN- 978333004811. (2017)
- 3. *Salmonella*: recent advances in the field of infections and treatment, published in Lambert Academic Publishing (LAP) ISBN- 9783330080225. (2017)

Book Chapters:

1. Anand Kumar, Sarada Prasanna Mallick, Deepti Singh, Neeraj Gupta, Advances in bioremediation: introduction, applications, and limitations, Biological Approaches to Controlling Pollutants, Elsevier 2021.

Post Graduate Students Guided.

- 1. Divyani Gupta (M.Tech.) Department of Biotechnology, Rama University, Uttar-Pradesh Kanpur, Topic "Evaluation of restriction endonuclease pattern among Cholera causing species in clinical and environmental samples. 2020.
- 2. Sweta Tiwari (M.Tech.) Department of Biotechnology, Rama University, Uttar-Pradesh Kanpur, Topic Studies on Indole Acetic Acid Production by Plant Growth Promoting Rhizobacteria Isolates" 2020
- 3. Tanya Pal (M.Sc.) Department of Biotechnology, Rama University, Uttar-Pradesh Kanpur, "Green Synthesis of Silver nanoparticle using *Hibiscus rosa-Sinensis* and its application. 2020
- **4. Ayushi Shukla (M.Sc.)** Department of Biotechnology, Rama University, Uttar-Pradesh Kanpur, Green Synthesis of Silver nanoparticle using *aloe vera* and its application. 2020

Sequence.

- 1. *Salmonella enterica* sub sp. enterica serovar Typhimurium str.SL1344 st2 gene for surface lipoprotein, complete cds submitted in DNA Data Bank of Japan (ACCESSION No. LC069355)
- 2. Aspergillus niger 18S rDNA sequence submitted in DNA Data bank of Japan (ACCESSION No. LC062385)
- Trichoderma asperellum 18S r DNA Sequence submitted in DNA Databank of Japan (ACCESSION No. LC063169)

Conferences/ Seminars/ Workshops.

- Oral Presentation in "International Conference on Beneficial Microbes 2016" (ICOBM-2) in Phuket,
 Thailand, (31st May to 2nd June 2016).
- 2. Poster presentation in international conference on "New Horizons in Biotechnology" (NHBT-2015) in National Institute for Interdisciplinary Science and Technology (NIIST) Trivandrum, Kerala, India. (22nd-25th Nov. 2015)
- 3. Poster Presentation in National conference (NASI) on "Science, Technology and Entrepreneurship for Human Welfare in Himalayan Region" in Dehradun. (2nd-4th December 2016)

- 4. Paper presentation in International Conference on "Recent Trends in Climate Change Researches vis-à-vis Biodiversity" under the Centre of Excellence, M.J.P.R. University. (3rd -4th December 2012)
- 5. Poster presentation in National conference on "Antimicrobial Resistance: A Cause for Global Concern" conducted by SHUATS, Allahabad. (6th-8th Feb 2012)
- 6. Participation in QIP Short Term Course on Advances in Bioprocess Engineering in School of Biochemical Engineering, IIT (BHU), (19th -24th June 2017)
- 7. Participation in workshop on "AKTA Protein Purification System" in School of Biochemical Engineering (10th -11th August 2017)
- 8. Participation in symposium on "DNA Repair, Genomic Instability and Cancer" conducted by Deptt of Zoology, Banaras Hindu University.(4th -5th March 2010)
- 9. Participation in seminar on "Nuclear Energy for National Development" jointly organized by B.H.U. & BARC, Mumbai, (24th March 2010)
- 10. One-month summer training in "Division of Bacteriology and Mycology" IVRI, Izatnagar (30th May 29th June 2008)
- 11. Participation in the training programme on "Use of Flow Cytometry in Animal Research" in Biochemistry division, IVRI. Izatnagar, (8th Aug. 2012).
- 12. AICTE approved QIP Bioenergy: A hope for future for global energy security, attended on 1-6th March 2021 conducted

Lab Skills.

- 1. Molecular Biology
- 2. Cloning, expression and protein purification
- 3. Animal Cell Culture
- 4. Bioprocess Engineering
- 5. Downstream processing
- 6. Application of Flow Cytometry
- 7. Serological test (ELISA, DID)
- 8. Basic Bioinformatics tool

Competitive Examinations Qualified.

- 1. GATE qualified with 90.48 percentile in 2010 &2011.
- 2. CET-2012
- 3. NET -2014

Fellowships.

1. MHRD (Teaching Assistantship)

References:

1. Prof. Mira Debnath (Das)

School of Biochemical Engineering Indian Institute of Technology (BHU) Varanasi, India-221005

Email: m.debnath.bce@itbhu.ac.in

Mobile: +919450387552

2. Prof. Subir Kundu

School of Biochemical Engineering Indian Institute of Technology (BHU) Varanasi India-221005 Email: skundu.bce@itbhu.ac.in Mobile: +919415228077

3. Dr. A. K. Tiwari

Director

Central Avian Research Institute.

Izatnagar, India-243122

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