

ANKIT SINGH

Research Scientist (Research & Development Professional)

*A goal-oriented researcher targeting challenging assignments in
Research & Development / Chemical Process Development / Project Management
Industry Preference: Pharmaceuticals / Biotech / Clinical Research*



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Key Skills

Research & Development

Molecular Biology Analysis

Technology Transfers

Process Improvement

Audits & Quality Control

New Laboratory Equipment
Evaluation

Safety Protocols and GLP
Compliance

Team Management

Soft Skills



Communicator



Thinker



Innovator



Collaborator



Intuitive

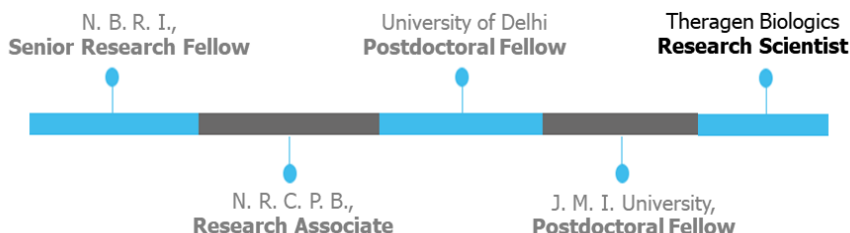


Profile Summary

- An esteemed **research professional** offering nearly **9 years'** of post-doctoral research experience in the fields of **life sciences** including Proteomics, Molecular Biology, DNA Sequencing, Genetic Engineering, Bio-pharmaceuticals, Functional Genomics, Bioassay and animal experiments with the merit of being associated with numerous **presentations, publications & conferences.**
- Excellence in spearheading **R&D operations & modification** of existing ones, based on rapidly evolving scientific paradigms / feedback and trends while ensuring adherence to **Safety Protocols and GLP as per the ICH guidelines.**
- Familiar with techniques such as enzyme assays, enzyme kinetics, PK/PD, biophysical characterization, and structural folding analysis of protein with **Spectrofluorimetry** (Perkin Elmer FL6500), **SPR** (Biachore 3000), **HPLC** (Shimadzu LC2010CHT) and **Circular Dichroism** (Jasco J-815 Spectropolarimeter)
- Subject Matter Expert of **collecting, processing, and analyzing** the research related data according to established **protocols, procedures & standards** as appropriate to specific objectives of the **research study**
- Leveraged capability of mentoring & leading talented **cross-functional researchers**, expertise in imparting **Training & Development** on various topics
- Effective communicator with **strong data analytical and problem-solving and contemporary research skills**



Career Timeline





Notable Accomplishments Across The Career

- **"Diamond Jubilee Research Internship"** by Council of Science and Industrial Research- NBRI, Lucknow in 2007.
- **"Senior Research Fellowship"** by Council of Science and Industrial Research from 2008- 2011
- **"Dr. D. S. Kothari Postdoctoral Fellowship"** by University Grant Commission in 2015.
- **Ruchi Ram Sahani Research Prize** in Botany for the best research work at University of Lucknow, 2015
- **Qualify CSIR-NET** in Life Science conducted by National Testing Authority, 2020.
- **Qualify ASRB-NET** in Agriculture Biotechnology conducted by Agriculture Scientist Recruitment Board, 2014.



Work Experience

Since Aug'20

Theragen Biologics Pvt. Ltd. as Research Scientist

Topic: The development and optimization for bacterial based Fab fragment for the treatment of Diabetic Retinopathy.

Key Role:

Research and Development

- Analyzing, summarizing, and presenting results of research projects and maintaining systematic records thereof
- Carrying out regular reviewing of ongoing research trends and performing synchronized studies time to time
- Accountable for **quantitative and qualitative assessments** at Lab to monitor process involved in R&D related **product development** efforts
- Spearheading day-to-day **research activities** and resolving **procedural problems** for timely completion of **research objectives**
- Collecting, processing, analyzing, and cataloging data according to established standards/norms as appropriate to specific objectives of the research study
- Leading a team of R&D scientists to develop and synthesize a range of intermediate biomolecules and providing **technical support** in R&D and production

Quality Assurance/ Quality Control

- Reviewing the operational practices, identifying the areas of obstruction / **quality failures**, and advising on system and process changes for **qualitative improvement**
- Planning and execution of complete quality control functions as per preset guidelines to comply with regulatory requirements like BIS, FDA etc.
- Imparting training to supervisory staff and workmen to ensure safe work practices
- Coordinating with **QA / QC personnel** for implementation of current / revised standard testing procedures and specifications for new products
- Developing the weekly, fortnightly, monthly & quarterly cleaning & sanitation schedules & ensuring its complete implementation

Regulatory Affairs

- Preparing **SOP, method development, Validation reports, TOT, BAR, C3 & C5 (RCGM) and other relevant documents.**
- Supervising the analytical work & documentation as per the **ICH regulations** and various **regulatory authorities.**
- Preparing documentation of the in-house developed analytical methods developed, **standard testing procedures** and specifications for routine use by **QC personnel.**

Laboratory Operations

- Supervising **laboratory operations** involving preparation and calibration of **equipment, products and materials** for experiments and surveys and developing new methods and equipment
- Determining optimum laboratory conditions and deftly managing complete activities in line with the statutory requirements as per preset guidelines.
- Conducting **field, site surveys and tests** and carrying out various experiment for method development
- Monitoring the RM/PM/IP/FP and stability analysis of products to ensure conformity with standards and specifications



Technical & Professional Skills

- Proficient in protein over expression, isolation, and characterization from different sources like *E. coli*, yeast, plants, and animal tissues.
- Protein purification and analysis via FPLC, SEC-HPLC, RP-HPLC, IEX-HPLC, Affinity, HIC.
- Sample evaluation for HCP, HCDNA, Protein L-leakage, ET, QELISA, Affinity ELISA (EC50), Quantikine assay, SDS-PAGE, 2D, PK/PD, Western blotting and DIGE etc.
- Well versed with techniques such as enzyme assays, enzyme kinetics, biophysical characterization, and structural folding analysis of protein with Spectro-fluorimetry, SPR, MS and Circular Dichroism.
- Excellent knowledge of downstream and upstream processing of Biopharmaceuticals or Biotherapeutics development and productions.
- Experience in animal handling, bioassay (IC50) and immunization experiments.
- Excellent knowledge of downstream and upstream processing of Biopharmaceuticals or Bio-therapeutics development and productions.
- Well versed with applied molecular biology techniques like preparation of DNA, RNA, cloning and co-immuno localization and precipitation, Real-time PCR, confocal and compound microscopy, spectrometry and spectro-fluorimetry with microarray experiment and their analysis.
- Good experience in DNA sequencing, oligomer designing, synthesis and purification.
- Cloning of constructs for CRISPR-Cas9 against CLCuV and fusion protein of Rabies glycoprotein with Ricin Toxin B chain into expression vectors.
- Well versed with applied molecular biology techniques like preparation of DNA, RNA, cloning and co-immuno localization and precipitation Real-time PCR, confocal and compound microscopy, spectrometry and spectro-fluorimetry with microarray experiment and their analysis.
- Bioinformatics software's like Blast2go, PHYLIP, R-language, GeneScan, Genotyper and GraphPad Software etc.
- MS-Office (Word, Excel & PowerPoint) & Internet Application



Previous Experience

Mar'17 to Dec'19

Jamia Millia Islamia University as Postdoctoral Research Fellow

Topic: Development of CLCuD viral resistance through CRISPR-Cas9 based genome editing

Jan'16 to Mar'17

University of Delhi South Campus as Postdoctoral Research Fellow

Topic: Comparative proteomic analysis of differentially expressed proteins in rice.

May'11 to Dec'15

NRCPB, Delhi as Research Associate

Topic: Biophysical characterization of wild and mutant (C677T, A1298C Variant) humane 5, 10-Methylenetetrahydrofolate reductase enzyme (MTHFR) from *E. coli*.

Jun'05 to Mar'11

NBRI, Lucknow as Senior Research Fellow

Topic: Development of plant based oral vaccine against rabies.



Academic Details

- **2014:** Ph.D. from University of Lucknow
- **2004:** M.Sc. from A.A.I.-Deemed University, Allahabad
- **2001:** B.Sc. from C.S.J.M. University, Kanpur



Courses

- WIPO's Certificate Course on **Intellectual Property** (DL101) in 2016
- WIPO's Certificate Course on **Patent Co-operation Treaty (PCT)** in 2016



Workshops / Trainings

Workshop attended:

- "Examination of paracetamol and RC1179 drugs induced hepatotoxicity on Rat" in Central Drug Research Institute (CDRI), Lucknow, 2003
- Safe Use of Unsealed Radioactive Sources in Nuclear Research Laboratory, Pusa campus, New Delhi, 2014.
- "Cancer therapy through targeting mammalian DNA repair pathways" in Jamia Millia Islamia University, 2017.

Training attended:

- Application of Capillary Electrophoresis in AIRF-USIC, JNU, New Delhi, 2014
- Advanced Analytical Instrumentation and Application held at AIF-USIC, JNU, New Delhi, 2009
- High resolution LCMS- Orbitrap BioPharma and NMR 600 Mhz workshop attended at IIT Bombay, 2018.



Personal Details

- **Date of Birth:** 24th August 1980
- **Languages Known:** English & Hindi
- **Address:** Warden Flat 4, Ganga Hostel, J.N.U., New Delhi - 110067



References:

- **Dr. P. C. Verma**, principal Scientist, C.P.M.B. & G. E. Division, National Botanical Research Institute, Rana Pratap Marg, Lucknow- 226001, India, Mob: 91-9452182470. E mail: praveencverma@yahoo.com
- **Dr. Gauri Saxena**, Associate Professor, Department of Botany, University of Lucknow, Lucknow- 226007, India. Mo: 91-9415182051. E mail: gaurigupta72@yahoo.com
- **Prof. Jawaid A. Khan**, Professor, Department of Biosciences, Jamia Millia Islamia University, New Delhi-110025, India. Mo: 91-9818568158. E mail: jawaidkhan14@yahoo.co.in

Research Publications: 8,

Popular Article: 2,

Book & Book Chapter: 2,

Presentation in Conferences: 8,

NCBI database Submission: 7

(Details are mentioned in a separate Annexure and will be provided on the need of reviewer.)