



# Apurwa Singhal

DBT- Senior Research Fellow

Pharmacology Division

CSIR-Central Drug Research Institute,  
Sector 10, Jankipuram Extension  
Lucknow-226031 (India)

## CONTACTS

📍 C-23 Type 3 apartments CSIR-  
CDRI, Jankipuram Extension,  
Sector 10, Lucknow, 226031

☎ 9045125284

✉ [apurwasinghal96@gmail.com](mailto:apurwasinghal96@gmail.com)

## PERSONAL INFORMATION

**Fathers name:** Rajkumar Singhal

**Mothers name:** Prabha Singhal

**Date of Birth:** 13/01/1996

## LANGUAGES

- English
- Hindi

## Academic Details

**Senior Research Fellow** (2019- Present)  
Central Drug Research Institute

**Project Assistant** (2018- 2019)  
Central Drug Research Institute

**Master of Science in Biotechnology** (2016-2018)  
**CGPA:9.28**  
Banaras Hindu University, Varanasi

**Bachelor of Science in Biotechnology** (2013-2016)  
**Percentage: 72.8%**  
CCS University, Meerut

**Spring Fields College, Moradabad** (2013)  
Indian School Certificate Examination (Class XII)

**Spring Fields College, Moradabad** (2013)  
Indian Certificate of Secondary Education Examination (Class X) (2011)

## Technical skill and interest

**Area of interest:** Neutrophil, Cell deaths, Neutrophil Extracellular traps, Pyroptosis, DAMPs, Inflammation, Cell culture, Clearance, Efferocytosis, Neutrophil chemotaxis.

**Technical Skills:** Animal handling, Western blotting, Immunohistochemistry, ELISA, Flow cytometry, High Content Screening-Cellomics.

## Academic achievements

- JNU- Combined Entrance Examination for Biotechnology 2016 (All India Rank 92)
- Qualified CSIR-NET (LS) 2018
- Qualified GATE- life science exam.
- Qualified DBT-JRF 2019

## Co-curricular activities

- **Abstract Presentation:** Apurwa Singhal, Ramandeep Singh, Sachin Kumar “the role of neutrophil in immunotolerance and inflammation” 8-9 July 2022, 48<sup>th</sup> Annual Conference India Immunological Society, Banaras Hindu University, Varanasi.

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## Research Projects

- Redox regulation of immune cells, neutrophils in insulin resistance and type 2 diabetes.
- Role of Rho A signalling in regulation of neutrophils chemotaxis during LPS induced lung inflammation.
- Screening of potential modulators/inhibitors for Neutrophil extracellular traps (NETs) in therapeutic targeting of multiple disease pathologies.
- Identification of diverse neutrophil cell deaths and remnants leading to immunotolerance vs immunogenic outcomes and their clearance mechanisms.
- “Isolation of melanin pigment and impact of UV-B radiation stress on its synthesis and protein turn over in bacteria” (Master’s Thesis, under guidance of Prof Ashok Kumar, BHU, Varanasi).

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## Publications

1. **Singhal A**, Yadav S, Chandra T, Mulay SR, Gaikwad AN, Kumar S. An imaging and computational algorithm for efficient identification and quantification of neutrophil extracellular traps. **Cells** 2022, 11(2), 191; <https://doi.org/10.3390/cells11020191>
2. **Singhal A**, Kumar S. Neutrophil and remnant clearance in immunity and inflammation. **Immunology** 2022 Jan;165(1):22-43.
3. **Singhal A**, Dhankani P, Mazumder J, Adithya R, Dikshit M, Kumar S. Rho signaling inhibition mitigates lung injury via targeting neutrophil recruitment and selectin-AKT signaling. **Biochimica et Biophysica Acta (BBA)-Molecular Cell Research** 2021 Nov;1868(12):119122.