

## **Saba Qureshi**

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### **Professional Summary**

7+ years of research experience in biotechnology, toxicology, photobiology, microbiology, genetics and molecular biology. Expertise in mammalian cell culture, microscopy and molecular biology techniques, assay development, planning and conducting studies for safety assessment of drugs, chemicals, fragrances/cosmetics. Focused on alternative toxicology test methods and risk assessment tools to reduce the need for animal testing. Demonstrated leadership qualities and strong team player. Strong written and oral communication skills.

### **Work Experience**

#### **Postdoctoral Fellow** (April 2022- Present)

Department of Ophthalmology, Icahn School of Medicine at Mount Sinai, New York

- Role of ER and oxidative stress in Fuchs corneal endothelial dystrophy (FUCD).
- Functional relevance of ER-mitochondria cross-talk in FUCD.

#### **Postdoctoral Research Fellow** (January 2022- April 2022)

Department of Biology, University of Dayton, OH, United States

- Genetics of dorso-ventral patterning in Drosophila eye.
- Screening of novel genes involved in the patterning and growth of Drosophila eye as a model to study human diseases.

#### **Senior Research Fellow** (January 2017- August 2021)

Photobiology Division, CSIR-IITR, India

- Studied the phototoxicity and genotoxicity potential of drugs, cosmetics and fragrances in human skin cell line.
- Publication of research articles in International peer- reviewed journals.
- Maintenance of laboratory in terms of designing and executing experiments according to SOPs, recording and analyzing data, supervising junior staff including students and technicians, ensuring that quality standards are met.

#### **Junior Research Fellow** (January 2015- December 2016)

Photobiology Division, CSIR-IITR, India

- Screened various drugs, chemicals, fragrance and cosmetics ingredients for their toxicity potential in combination with ultraviolet irradiation.
- Preparation of scientific reports, research articles and data analysis.
- Teaching and mentoring students for laboratory training and dissertation.

### **Education**

- **Ph.D. in Biological sciences** (Biotechnology, Toxicology and Biochemistry) (Jan 2015- Dec 2021)  
CSIR-Indian Institute of Toxicology Research, India

Thesis title: Ultraviolet-radiation induced phototoxicity mechanisms of non-steroidal anti-inflammatory drugs.

- **M.Tech in Biotechnology** (Jan 2012- Aug 2013)  
Integral University, Lucknow, India
- **B.Tech in Biotechnology** (Jul 2008- Jan 2012)  
Integral University, Lucknow, India

### **Laboratory and Technical Skills**

- Maintenance and preservation of cell lines, mammalian cell culture and microbial culture.
- Drosophila genetics.
- Antibody characterization, qPCR, RT-PCR, Western blotting, immunohistochemistry, fluorescence and confocal microscopy, microbiological techniques, agarose gel electrophoresis, SDS-PAGE, UV spectroscopy, protein purification, primer design, DNA and RNA isolation.
- GraphPad Prism, ImageJ, MS Office, Statistical analysis, BLAST, FASTA.
- Protocol development, study design, data analysis, writing research articles, scientific projects and reports.
- Presentation of research data in conferences/seminars.

### **Publications**

- **Saba Qureshi**, Sonam Chandra, Deepti Chopra, Divya Dubey, Veena Jain, Somendu Kumar Roy, Ratan Singh Ray. Nabumetone induced photogenotoxicity mechanism mediated by ROS generation under environmental UV radiation in human keratinocytes (HaCaT) cell line. *Toxicology and Applied Pharmacology* (2021). <https://doi.org/10.1016/j.taap.2021.115516>
- Sonam Chandra, **Saba Qureshi**, Deepti Chopra, Ashish Dwivedi, Ratan Singh Ray. Involvement of Type-I and Type-II Photodynamic Reactions in Photosensitization of Fragrance Ingredient 2-acetonaphthone. *Photochemistry and Photobiology* (2022). <https://doi.org/10.1111/php.13593>
- Sonam Chandra, **Saba Qureshi**, Deepti Chopra, Saumya Shukla, Sunil Kumar Patel, Jyoti Singh, Ratan Singh Ray. UVR-induced phototoxicity mechanism of methyl N-methylantranilate in human keratinocyte cell line. *Toxicology in vitro* (2022). <https://doi.org/10.1016/j.tiv.2022.105322>
- Divya Dubey, Ajeet K. Srivastav, Jyoti Singh, Deepti Chopra, **Saba Qureshi**, Hari Narayan Kushwaha, Nivedita Singh, Ratan Singh Ray. Photoexcited triclosan induced DNA damage and oxidative stress via p38 MAP kinase signaling involving type I radicals under sunlight/UVB exposure. *Ecotoxicology and Environmental Safety* (2019). <https://doi.org/10.1016/j.ecoenv.2019.02.065>

### **Abstracts presented at International conferences**

- 2nd World Congress and Expo on Toxicology and Pharmacology, Oct 2019, Rome, Italy. **Saba Qureshi**, Divya Dubey, Deepti Chopra, Ratan Singh Ray. Nabumetone, a non-steroidal anti-inflammatory drug causes photosensitivity and photogenotoxicity under the ambient intensities of UV-R/sunlight.

- International Toxicology Conclave, Nov 2017, CSIR-IITR, Lucknow, India.
- International Toxicology Conclave, Nov 2015, CSIR-IITR, Lucknow, India.

### **Fellowships & Awards**

- DST-INSPIRE (SRF) (08/2017 - 02/2021)
- DST-INSPIRE (JRF) (08/2015 - 08/2017)
- Gold medalist (2013)- First rank holder/ Outstanding performance in academics (M.Tech)

### **References**

- Dr. Ratan Singh Ray (Ph.D. Supervisor)  
Chief Scientist, CSIR-Indian Institute of Toxicology Research, India.  
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- Dr. A.B. Pant (Ph.D. Supervisor)  
Senior Principal Scientist, CSIR-Indian Institute of Toxicology Research, India.  
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- Dr. Rajnish Kumar Chaturvedi (Ph.D. committee member)  
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