

## Format for Scientist Profile

1. **Name** Dr. Poonam Gautam
2. **Designation** Scientist D
3. **Discipline/research area** Cancer biology, Gallbladder cancer, Glioma
4. **ORCID ID, h-index** (<https://orcid.org/0000-0002-3804-6157>);  
h index- 13 (all), 10 (since 2018)
5. **Address (off.)** National Institute of Pathology  
Safdarjung Hospital campus, New Delhi-110029
6. **Telephone (off.)** 011- 26198402-406, Ext 359
7. **Email address** gautam.poonam@gmail.com; poonamgautam.nip@gov.in
8. **Educational Qualifications**
  - 2001-07 Ph. D. from CSIR- Institute of Genomics and Integrative Biology (IGIB), Delhi and Department of Biotechnology, University of Pune (2007)
  - 1995-97 M. Sc. (Bio Technology) from Banaras Hindu University (BHU), Varanasi
9. **Research Experience**
  - 2019- till date Scientist 'D' at ICMR- National Institute of Pathology, New Delhi,
  - 2015-19 Scientist 'C' at ICMR- National Institute of Pathology, New Delhi,
  - 2012-15 Scientist 'B' at ICMR- National Institute of Pathology, New Delhi,
  - 2007-12 'Research Associate' at Proteomics Research Facility, CSIR- Centre for Cellular and Molecular Biology (CCMB), Hyderabad from July 2007- Jan 2012
10. **Awards**
  1. Selected for "Pre-Congress Training course HUPO 2013" on "Modern Techniques in Proteomics" from 11<sup>th</sup> -13<sup>th</sup> September 2013 at Yokohama, JAPAN. HUPO provided the partial financial support.
  2. Travel award (full travel support) from DST and partial financial Support from INSA to attend HUPO 2013 at Yokohama, JAPAN from 14<sup>th</sup>-18<sup>th</sup> September, 2014.
  3. HUPO Young Investigator award 2009
  4. Travel award (full travel support) from DST to attend HUPO 2009 at Toronto, Canada.
  5. Travel Award from the World Allergy Organization to attend World Allergy Congress 2007, held from 2-6th December 2007 at Bangkok, Thailand
  6. Roche Travel Award (full travel support) from HUPO organizers to attend HUPO 5<sup>th</sup> Annual World Congress at Long Beach in 2006
  7. CSIR-NET Senior Research Fellowship 2003-2006
  8. CSIR-NET Junior Research Fellowship 2001-2003
11. **Membership/Fellowship of Professional Societies/Associations :**
  - Member of Human Proteome Organization (HUPO) organization
  - Life Membership of Proteomic Society of India (PSI)
  - Life membership of Indian Immunology Society (IIS)
  - Member of Indian Association of Cancer Research (IACR)

## 12. Publications

Total Manuscripts- 25 (International- 24, National- 1); Total Impact Factor- 103.24; Citations- 626; h-index- 13), (24 International and 1 National); Book chapters- 06

## 13. 10 best publications

1. Akhtar J, Jain V, Kansal R, Priya R, Sakhuja P, Goyal S, Agarwal AK, Ghose V, Polisetty RV, Sirdeshmukh R, Kar S and Gautam P (2023) Quantitative tissue proteome profile reveals neutrophil degranulation and remodeling of extracellular matrix proteins in early stage gallbladder cancer. *Front. Oncol.* 12:1046974. doi: 10.3389/fonc.2022.1046974 (IF 5.738).
2. Priya R, Jain V, Akhtar J, Saklani N, Sakhuja P, Agarwal AK, Polisetty RV, Sirdeshmukh R, Kar S, Gautam P. Proteomic profiling of cell line-derived extracellular vesicles to identify candidate circulatory markers for detection of gallbladder cancer. *Front Oncol.* 2022 Nov 23;12:1027914. doi: 10.3389/fonc.2022.1027914. (IF 5.738).
3. Tripathi PH, Akhtar J, Arora J, Saran RK, Mishra N, Polisetty RV, Sirdeshmukh R, Gautam P. Quantitative proteomic analysis of GnRH agonist treated GBM cell line LN229 revealed regulatory proteins inhibiting cancer cell proliferation. *BMC Cancer.* 2022 Feb 2;22(1):133. doi: 10.1186/s12885-022-09218-8. (IF 4.4).
4. Priya R, Jain V, Akhtar J, Chauhan G, Sakhuja P, Goyal S, Agarwal AK, Javed A, Jain AP, Polisetty RV, Sirdeshmukh R, Kar S, Gautam P. Plasma-derived candidate biomarkers for detection of gallbladder carcinoma. *Sci Rep.* 2021 Dec 7;11(1):23554. doi: 10.1038/s41598-021-02923-7. (IF 4.3).
5. Rana R, Chauhan K, Gautam P, Kulkarni M, Banarjee R, Chugh P, Chhabra SS, Acharya R, Kalra SK, Gupta A, Jain S, Ganguly NK. Plasma-Derived Extracellular Vesicles Reveal Galectin-3 Binding Protein as Potential Biomarker for Early Detection of Glioma. *Front Oncol.* 2021 Nov 26;11:778754. doi: 10.3389/fonc.2021.778754. (IF 6.244)
6. Verma S, Deep DK, Gautam P, Singh R, Salotra P. Proteomic Analysis of *Leishmania donovani* Membrane Components Reveals the Role of Activated Protein C Kinase in Host-Parasite Interaction. *Pathogens.* 2021 Sep 15;10(9):1194. doi: 10.3390/pathogens10091194. (IF- 3.49)
7. Kumari A, Tripathi AH, Gautam P, Gahtori R, Pande A, Singh Y, Madan T, Upadhyay SK. Adhesins in the virulence of opportunistic fungal pathogens of human. *Mycology.* 2021 Jul 5;12(4):296-324. doi: 10.1080/21501203.2021.1934176. (IF- 3.2)
8. Thakur G, Sathe G, Kundu I, Biswas B, Gautam P, Alkahtani S, Idicula-Thomas S, Sirdeshmukh R, Kishore U, Madan T. Membrane Interactome of a Recombinant Fragment of Human Surfactant Protein D Reveals GRP78 as a Novel Binding Partner in PC3, a Metastatic Prostate Cancer Cell Line. *Front Immunol.* 2021 Jan 19;11:600660. doi: 10.3389/fimmu.2020.600660. (IF- 6.429)
9. Akhtar J, Priya R, Jain V, Sakhuja P, Agarwal AK, Goyal S, Polisetty RV, Sirdeshmukh R, Kar S, Gautam P. Immunoproteomics approach revealed elevated autoantibody levels against ANXA1 in early stage gallbladder carcinoma. *BMC Cancer.* 2020 Dec 1;20(1):1175. doi: 10.1186/s12885-020-07676-6. (IF 3.0).
10. Gupta MK, Polisetty RV, Sharma R, Ganesh RA, Gowda H, Purohit AK, Ankathi P, Prasad K, Mariswamappa K, Lakshmikantha A, Uppin MS, Sundaram C, Gautam P\*, Sirdeshmukh R\*. Altered transcriptional regulatory proteins in glioblastoma and YBX1 as a potential regulator of tumor invasion *Sci Rep.* 2019 Jul 29;9(1):10986. DOI: 10.1038/s41598-019-47360-9. (IF- 4.5)

#### 14. Book Chapters (6)

1. Book chapter entitled "Human fungal pathogens and drug resistance against azole drugs". Authors: Preetida J. Bhetariya, Neha Sharma, Pragati Singh, Priyanka H. Tripathi, Santosh K. Upadhyay and \*Poonam Gautam (2017) in a Book entitled "Drug Resistance in Bacteria, Fungi, Malaria, and Cancer" Editors- Andaleeb Sajid, Gunjan Arora, V. C. Kalia. Publisher- Springer, P. 387-428. DOI: 10.1007/978-3-319-48683-3\_18
2. Book chapter entitled "Drug Resistance in Cancer". Authors- Santosh K. Upadhyay, Ramesh C. Rai, Rekha Gehtori, Ashutosh Paliwal, Poonam Gautam, Penny Joshi. (2017) in a Book entitled "Drug Resistance in Bacteria, Fungi, Malaria, and Cancer" Editors- Andaleeb Sajid, Gunjan Arora, V. C. Kalia. Publisher- Springer, P. 449-473. Link- <https://www.scribd.com/document/385806325/Drug-Resistance-in-Bacteria-Fungi-Malaria-pdf> (DOI not available)
3. Book chapter entitled "Human pathogenic fungi and their survival mechanisms in the host". Authors- Tapish Dogra, Lakshna Mahajan, Santosh K. Upadhyay, Poonam Gautam (2016) in Book "Applied Microbiology: Microbes in Action" Editors- Neelam Garg and Abhinav Aeron and Publisher- **Nova Science** (Book chapter 14; ISBN: 978-1-63484-520-5). Link- <https://novapublishers.com/shop/microbes-in-action/>(DOI not available)
4. Book chapter entitled "Use of microbes in the production of vaccines". Authors- Rini Joshi, Tara Singh Bisht, Lakshna Mahajan, Poonam Gautam, Alissa Verone-Boyle, Santosh Kumar Upadhyay (2016) in Book "Applied Microbiology: Microbes in Action" Editors- Neelam Garg and Abhinav Aeron and Publisher- **Nova Science** (Book chapter 12; ISBN: 978-1-63484-520-5). Link- <https://novapublishers.com/shop/microbes-in-action/>(DOI not available)
5. Book chapter entitled "Gut Microbiota and human health". Authors- Lakshna Mahajan, Santosh K. Upadhyay, A. Archana, Poonam Gautam (2016) in Book "Applied Microbiology: Microbes in Action" Editors- Neelam Garg and Abhinav Aeron and Publisher- **Nova Science** (Book chapter 10; ISBN: 978-1-63484-520-5). Link- <https://novapublishers.com/shop/microbes-in-action/>(DOI not available)
6. Book Chapter entitled "Allergens/antigens of *Aspergillus fumigatus*" Authors- Poonam Gautam, P. Usha Sarma and Taruna Madan (2005) in a book "Mold Allergy, Biology and Pathogenesis" edited by Dr. V. P. Kurup. Page No. 176-186. (DOI not available) Link- <https://www.cabdirect.org/cabdirect/abstract/20063126780>

#### 15. Projects

##### Ongoing projects

##### As PI

1. Principal Investigator in project entitled Identification of novel therapeutic targets associated with Gonadotropin-Releasing Hormone Signaling in Glioblastoma (ICMR-funded, Duration 3 Yr, December, 2021-24, Project ID 2020-9420, Rs 10,63,160/-)
2. Principal Investigator in project entitled "Deregulated Proteome Analysis Of Lymph Node Metastatic Gallbladder Carcinoma To Identify Novel Therapeutic Targets" SERB-funded; Duration 3 Yr, April 2021-24; Project ID CRG/2020/002100, Rs 44,84560/-)
3. Principal Investigator in project entitled "Identification Of Extracellular Vesicles-based Circulatory miRNAs for Early Detection of Gallbladder Cancer" (ICMR-funded, 3 Yr, March 2021-24; Project ID 2020-0109, Rs 61,19,400/-).

**As Co-I**

4. Co-Investigator in the project entitled "Proteomic analysis of cardiac tissue of Rheumatic Heart Disease patients with Atrial Fibrillation to understand the pathophysiology and to identify candidate biomarkers for diagnostic and therapeutic applications" [DBT BioCare, 2022-25]
5. Co-Investigator in the project entitled "Role of 2-Hydroxyglutarate as a circulatory biomarker in Gliomas" [ICMR funded; Project ID 2017-4524, Duration 3 Yr, Feb 2019-22, 15 Lakhs]
6. Co-Investigator in the project entitled "Comparative Proteomic analysis to discover novel plasma biomarkers for early detection, surveillance and prognostication of Atrial fibrillation in patients with Rheumatic heart disease" [DST-SERB funded, Project ID CRG/2018/001114 March 2020-23, 59.54 L]

**Projects completed****As PI**

7. Principal Investigator in project entitled "Proteomic Analysis of Plasma Exosomes to Identify Circulatory Biomarkers for Gallbladder Carcinoma" [ICMR funded; Project ID- 2014-1182; Duration- 3 Yr + 6 months extension, 26<sup>th</sup> March 2017-25<sup>th</sup> September, 2020. Rs 44 Lakhs].
8. Project Investigator in the project entitled "Autoantibody Response And Identification Of Tumor-Associated Antigens In Gallbladder Carcinoma - Immunoproteomics Approach" [Funded by DST-SERB funded, Project ID- YSS/2015/001321; Duration- 3 Yr + 3 months extension, 4th June, 2016- 3<sup>rd</sup> September, 2019;, 29.51 Lakhs]

**As Co-I**

9. Co-investigator in the project entitled "Identification of the factors associated with susceptibility/ resistance to heterosexual HIV transmission among serodiscordant couples using proteomics" [DBT funded, Project ID BT/PR5219/MED/29/474/2012; 34.93 L, Duration- 3 Yr + 6 months extension, 09<sup>th</sup> September 2013-March 2017].