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Born on 21.12.1988, New Delhi, India

Post-doctoral Research Scientist (She/her)

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Married, one child (3-year-old)

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(Niederlassungserlaubnis)

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<https://www.ukbonn.de/iht/bereichsstruktur/forschung-lehre/>



Academic education and degrees

2007-2010 Bachelor of Sciences, Bio-medical Sciences, University of Delhi, New Delhi, India
2010-2012 Master of Sciences, Molecular and Human Genetics, BHU, Varanasi, India

Scientific education and degrees

2014-2020 PhD student in Pharmacy, Specialization: Molecular Hematology (Thesis: Structure- functional characterization of human plasma coagulation factor XIII complex) Mark: 0.0 (summa-sum-laude with excellence) under Prof. Johannes Oldenburg, Director, Institute of Experimental Hematology and Transfusion Medicine. Bonn- Germany.
2020-present Preparing for Habilitation thesis in Experimentelle Hämatologie, University hospital of Bonn under Prof. Johannes Oldenburg, Director, Institute of Experimental Hematology And Transfusion Medicine

Professional career

2012-2013 Junior research PhD fellow at National Institute of Immunology, New Delhi, India
2014-2017 Junior research PhD fellow at Institute of Experimental Hematology and Transfusion Medicine, University Hospital of Bonn
2018-2020 Senior research PhD fellow at Institute of Experimental Hematology and Transfusion Medicine, University Hospital of Bonn
2020 onwards Post-doctoral fellow at Arijit Biswas Lab, Institute of Experimental Hematology and Transfusion Medicine (Director: Prof. Johannes Oldenburg), University Hospital of Bonn

Research interests

Thrombosis and Haemostasis, Structure and functional aspects of coagulation proteins, Proteomics, Protein biochemistry.

Awards and Grants

2011-2012 Mahabir Prasad Singh Fellowship for meritorious students (<http://www.mpsfer.org/index.php>)
2012-2013 DBT-NET fellowship for pursuing PhD at the National Inst of Immunology-India.
2011 GATE 2011 (All India aptitude test in engineering, conducted by Indian Institute of Technology & Institute of Sciences) Registration number: XL 5607394. Rank: 274/13262 (All India). Percentile 97.9
2016 DAAD-IPD4ALL stipendium- Faculty of Pharmacy, University of Bonn

- 2017 Young Investigator Research Travel Award 2017: For participating in “Transglutaminase in medicine-2017”
- 2020 Recognition as Young Talent in field of Bleeding disorders (Nachwuchshsförderpreise Blutungskrankheiten 2020) for contributions towards bleeding disorders, by the German Society for Thrombosis and Hemostasis (Gesellschaft for thrombose heamatosi (GTH))
- 2021 Independent recipient of funding by German research foundation (DFG), under module: Temporary position for Principal Investigator, for an amount of €183,000 towards establishing further understandings in field of hemostaseology (FXIII-Fgn). (Starting from April 2021)
- 2021 Independent recipient of funding (for material costs) by the German Society of Thrombosis and Hemostasis (GTH) under Early Career Research Grants-2021, awarded an amount of €100,000 towards establishing further understandings in field of hemostaseology. (Starting from April 2021)
- 2021 Independent recipient of Bayer Promotionspriese-2021, (awarded by Bayer AG in association with Pharmazentrum Uni-Bonn) an amount of €1500 as a recognition towards excellence in Thesis writing, and acquiring 0.0 score (Summa-cum-laude with excellence) at the University of Bonn, Faculty of Pharmacy for the year 2020

Most important publications (Impact factor total: 38.13)

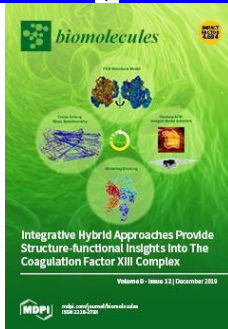
[†]Single or equally contributing first author

1. Exploring Diverse Coagulation Factor XIII Subunit Expression Datasets: A Bioinformatic Analysis. Jamil MA, **Singh S[†]**, El-Maarri O, Oldenburg J, Biswas A. Int J Mol Sci. 2022 Apr 25;23(9):4725. doi: 10.3390/ijms23094725. PMID: 35563115; PMCID: PMC9099568.
2. The Plasma Factor XIII Heterotetrameric Complex Structure: Unexpected Unequal Pairing within a Symmetric Complex **Sneha Singh[†]**, Alexis Nazabal, Senthilvelrajan Kaniyappan, Jean-Luc Pellequer, Alisa S. Wolberg, Diana Imhof, Johannes Oldenburg, Arijit Biswas. Biomolecules. 2019 Dec; 9(12): 765. Published online 2019 Nov 21. doi: 10.3390/biom9120765
3. Disruption of Structural Disulfides of Coagulation FXIII-B Subunit; Functional Implications for a Rare Bleeding Disorder **Sneha Singh[†]**, Mohammad Suhail Akhter, Johannes Dodt, Amit Sharma, Senthilvelrajan Kaniyappan, Hamideh Yadegari, Vytautas Ivaskevicius, Johannes Oldenburg, Arijit Biswas. Int J Mol Sci. 2019 Apr; 20(8): 1956. Published online 2019 Apr 22. doi: 10.3390/ijms20081956
4. Identification of Potential Novel Interacting Partners for Coagulation Factor XIII B (FXIII-B) Subunit, a Protein Associated with a Rare Bleeding Disorder **Sneha Singh[†]**, Mohammad Suhail Akhter, Johannes Dodt, Peter Volkers, Andreas Reuter, Christoph Reinhart, Christoph Krettler, Johannes Oldenburg, Arijit Biswas. Int J Mol Sci. 2019 Jun; 20(11): 2682. Published online 2019 May 31. doi: 10.3390/ijms20112682
5. Structure functional insights into calcium binding during the activation of coagulation factor XIII A **Sneha Singh[†]**, Johannes Dodt, Peter Volkers, Emma Hethershaw, Helen Philippou, Vytautas Ivaskevicius, Diana Imhof, Johannes Oldenburg, Arijit Biswas. Sci Rep. 2019; 9: 11324. Published online 2019 Aug 5. doi: 10.1038/s41598-019-47815-z
6. Revisiting the mechanism of coagulation factor XIII activation and regulation from a structure/functional perspective **Sneha Gupta[†]**, Arijit Biswas*, Mohammad Suhail Akhter, Christoph Krettler, Christoph Reinhart, Johannes Dodt, Andreas Reuter, Helen Philippou, Vytautas Ivaskevicius, Johannes Oldenburg. Sci Rep. 2016; 6: 30105. Published online 2016 Jul 25. doi: 10.1038/srep30105
7. Exploring the structural similarity yet functional distinction between coagulation factor XIII-B and complement factor H sushi domains. Akhter MS*, **Singh S[†]**, Yadegari H, Ivaskevicius V, Oldenburg J, Biswas A. J Thromb Thrombolysis. 2019 Jul;48(1):95-102. doi: 10.1007/s11239-019-01841-w.
8. Ivaškevičius V, Rühl H, Detarsio G, et al. A novel missense mutation in the FGB gene (p.Gly302Arg) leading to afibrinogenemia. Predicted structure and function consequences. Ivaškevičius V, Rühl H, Detarsio G, A Biswas, **S Gupta**, M Davoli, A

Quartara, S Pérez, M Raviola, J Oldenburg. Hamostaseologie. 2016;36(Suppl. 2):S34-S38.

Cover Image:

1. Singh et al. The Plasma Factor XIII Heterotetrameric Complex Structure: Unexpected Unequal Pairing within a Symmetric Complex. Biomolecules. 2019 Nov 21;9(12):765. https://res.mdpi.com/data/covers/biomolecules/big_cover-biomolecules-v9-i12.png ; <https://doi.org/10.3390/biom9120765>



Journal reviewer/Editorial board:

1. Ad-hoc reviewer for journals: MDPI-IJMS, MDPI-Cancer

Career breaks:

1. Parental Leave: May 2019-August 2020 (1 year, 3 months), at the birth of first child.