Arijit BISWAS, PD Dr. rer. nat.
Born on 17.08.1977, New Delhi, India

Staff Research Scientist

Institute of Experimental Hematology
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Arijit.Biswas@ukbonn.de
Married, one child (5 year old)

Indian citizen with Permanent Resident status (Niederlassungserlaubnis)

Academic education and degrees

1996-1999 Bachelor of Science, Botany, Delhi University, Delhi, India
1999-2000 Master of Science, Genetics, Delhi University, Delhi, India

Scientific education and degrees

2003-2008 PhD in Medical genetics (Thesis: Haemostatic and Molecular factors underlying young ischemic stroke in young Indians) Mark: Excellent
under Prof. Renu Saxena, HOD, Department of Hematology, All India Institute of Medical Sciences, New Delhi, India

2015 Habilitation program and *venia legendi* in Experimentelle Hämatologie, University Clinic of Bonn under Prof. Johannes Oldenburg, Director, Institute of Experimental Hematology And Transfusion Medicine

Professional career

2003-2006 Junior research fellow at Department of Hematology, All India Institute of Medical Sciences, New Delhi, India

2006-2008 Senior research fellow at Department of Hematology, All India Institute of Medical Sciences, New Delhi, India

2009-2012 Post-doctoral fellow with Prof. Dr. Johannes Oldenburg, Institute of Experimental Hematology and Transfusion Medicine, University Clinic of Bonn

2013-2018 Group Leader, Chemiinformatics and Factor XIII Laboratory, Institute of Experimental Hematology and Transfusion Medicine, University Clinic of Bonn

2018-Pres. Staff Research Scientist and Group Leader, Chemiinformatics and Factor XIII Laboratory, Institute of Experimental Hematology and Transfusion Medicine, University Clinic of Bonn

Research interests

Thrombosis and Haemostasis, Structure and functional aspects of coagulation proteins, Genetic-epidemiological profiling of coagulation/haemostatic disorders, Protein folding, Molecular dynamic simulation studies.

Awards and Grants

2003-2008 CSIR-UGC NET research Fellowship for pursuing graduate studies in India.

2008 Guest Scientist fellowship from the University of Würzberg, Germany

2009 Developing world scientist fellowship by International Society of Thrombosis and Hemostasis, 2009(Not availed)

2010-2011 BONFOR grant/award 2010(University of Bonn, Germany) grant for developing a new work group under the project entitled “An investigation into the functional interaction of Factor XIII A and B subunits.”(Grant number: O-145.0009).

2011-2014 Co-Investigator in a grant entitled “The genotypic and phenotypic characterization of patients with borderline Factor XIII deficiency” (Grant number: N-045.0141) from Novo Nordisk

2013-2016 Co-Investigator in a grant entitled “An in-depth structure-functional analysis of Factor XIII heterozygous mutations of clinical importance” (Grant number: N-045.0180) from CSL-Behring.

2015 Co-Investigator in an instrumentation grant entitled “Defining protein interaction within macromolecular assemblies in the coagulation pathway using a combination of in silico analysis and Isothermal Titration Calorimetry” (Grant number: G-045.0092) from Bayer.

2016-2017 Recipient of 2016 Clinical Research Grant Program/award for the proposal titled “Determining the prevalence of mild heterozygous Factor XIII deficiency in the German Caucasian population for its potential clinical impact.”(Grant number: H-045.0226).

2018-Pres. Visiting professor to the Department of Hematology All India Institute of Medical Sciences, New Delhi, India, under the ISTH Regional Training Center (RTC) Program.

2019-2022 Recipient of a DFG grant for the project entitled “Functional investigations into the dominant-negative patho-molecular mechanisms underlying FXIII heterozygous missense mutations of emerging clinical importance.” (Grant number BI 1645/3-1).

2019-2022 Recipient of an Investigator initiated research grant from Shire for the project entitled “Exploring the conformational landscape of factor VIII B domain in order to generate an all atom full length structure of the coagulation factor VIII protein.” (Grant number to be allocated).

2013-Pres. Shared several Abstract and Poster awards

Publications:

[¶]Corresponding/Last author [*]equally contributing first author

*equally contributing first authors
[§]Corresponding author

1. Singh S, Nazabal A, Kaniyappan S, Pellequer JL, Wolberg AS, Imhof D, Oldenburg J, **Biswas A[§]**. The Plasma Factor XIII Heterotetrameric Complex Structure: Unexpected Unequal Pairing within a Symmetric Complex. Biomolecules. 2019 Nov 21;9(12).

2. Sharma A, **Biswas A***, Liu H, Sen S, Paruchuri A, Katsonis P, Lichtarge O, Chand Dakal T, Maulik U, Gromiha MM, Bandyopadhyay S, Ludwig M, Holz FG, Loeffler KU, Herwig-Carl MC. Mutational Landscape of the BAP1 Locus Reveals an Intrinsic Control to Regulate the miRNA Network and the Binding of Protein Complexes in Uveal Melanoma. Cancers (Basel). 2019 Oct 19;11(10).

3. Singh S, Dodt J, Volkers P, Hethershaw E, Philippou H, Ivaskevicius V, Imhof D, Oldenburg J, **Biswas A[§]**. Structure functional insights into calcium binding during the activation of coagulation factor XIII A. Sci Rep. 2019 Aug 5;9:11324.

4. Singh S, Akhter MS, Dodt J, Volkers P, Reuter A, Reinhart C, Krettler C, Oldenburg J, **Biswas A[§]**. Identification of Potential Novel Interacting Partners for Coagulation Factor

XIII B (FXIII-B) Subunit, a Protein Associated with a Rare Bleeding Disorder. Int J Mol Sci. 2019 May 31;20(11).

5. Singh S, Akhter MS, Dodt J, Sharma A, Kaniyappan S, Yadegari H, Ivaskevicius V, Oldenburg J, **Biswas A**[§]. Disruption of Structural Disulfides of Coagulation FXIII-B Subunit; Functional Implications for a Rare Bleeding Disorder. Int J Mol Sci. 2019 Apr 22;20(8). pii: E1956.

6. Akhter MS, Singh S, Yadegari H, Ivaskevicius V, Oldenburg J, **Biswas A**[§]. Exploring the structural similarity yet functional distinction between coagulation factor XIII-B and complement factor H sushi domains. J Thromb Thrombolysis. 2019 Mar 26.

7. Pezeshkpoor B, Schreck U, **Biswas A***, Driesen J, Berkemeier AC, Pavlova A, Müller J, Oldenburg J. An in silico and in vitro approach to elucidate the impact of residues flanking the cleavage scissile bonds of FVIII. PLoS One. 2017 Jul6;12(7):e0180456.

8. Czogalla KJ*, **Biswas A***, Höning K, Hornung V, Liphardt K, Watzka M, Oldenburg J. Warfarin and vitamin K compete for binding to Phe55 in human VKOR. Nat Struct Mol Biol. 2016 Dec 12.

9. Yadegari H*, **Biswas A***, Akhter MS, Driesen J, Ivaskevicius V, Marquardt N, Oldenburg J. Intron retention resulting from a silent mutation in the VWF which exerts a structural influence on the 5' splice site. Blood. 2016 Aug 19. pii: blood-2016-02-699686.

10. Gupta S*, **Biswas A***[§], Akhter MS, Krettler C, Reinhart C, Dodt J, Reuter A, Philippou H, Ivaskevicius V, Oldenburg J. Revisiting the mechanism of coagulation factor XIII activation and regulation from a structure/functional perspective. Sci Rep. 2016 Jul 25;6:30105.

11. Thomas A*, **Biswas A***[§], Philippou H, Ensikat H, Hethershaw E, Ivaškevičius V, Oldenburg J. Coagulation Factor XIII A subunit missense mutations affect structure and function at the various steps of factor XIII action Hum Mutat. 2016 Oct; 37(10):1030-41.

12. Thomas A*, Ivaškevičius V*, Zawadzki C, Goudemand J, **Biswas A***, Oldenburg J. Characterization of a novel large deletion caused by double-stranded breaks in 6-bp microhomologous sequences of intron 11 and 12 of the F13A1 gene. Hum Genome Var. 2016 Feb 11; 3:15059.

13. Thomas A*, **Biswas A***[§], Ivaskevicius V, Oldenburg J. Structural and functional influences of coagulation factor XIII subunit B heterozygous missense mutants. Mol Genet Genomic Med. 2015 Jul; 3(4):258-71.

14. Akhter MS*, **Biswas A***, Rashid H, Devi L, Behari M, Saxena R. Screening of the GPX3 Gene Identifies the ‘‘T’’ Allele of the SNP 2861A/T as a Risk for Ischemic Stroke in Young Asian Indians. J Stroke Cerebrovasc Dis. 2014 Sep; 23(8):2060-8.

15. Akhter MS*, **Biswas A***, Rashid H, Devi L, Behari M, Saxena R. Screening of the NOS3 gene identifies the variants 894G/T, 1998C/G and 2479G/A to be associated with acute onset ischemic stroke in young Asian Indians. J Neurol Sci. 2014 Sep 15; 344(1-2):69-75.

16. Czogalla KJ*, **Biswas A***, Rost S, Watzka M, Oldenburg J. The Arg98Trp mutation in human VKORC1 causing VKCFD2 disrupts a di-Arginine-based ER retention motif. Blood. 2014 Aug 21; 124(8):1354-62.

17. Souri M*, **Biswas A***, Misawa M, Omura H, Ichinose A. Severe congenital Factor XIII deficiency caused by novel W187X and G273V mutations in the F13A gene; diagnosis and classification according to the ISTH/SSC guidelines. Haemophilia. 2014 Mar;20(2):255-62.

18. **Biswas A[§]**, Thomas A, Bevans CG, Ivaskevicius V, Oldenburg J. In vitro secretion deficits are common among human coagulation factor XIII subunit B missense mutants: Correlations with patient phenotypes and molecular models. Hum Mutat. 2013 Nov; 34(11):1490-500.

19. Ivaskevicius V*, **Biswas A*[§]**, Thomas A, Lyonga S, Rott H, Halimeh S, Kappert G, Klammroth R, Scholz U, Eberl W, Harbrecht U, Gnida C, Hertfelder HJ, Marquardt N, Oldenburg J. A common F13A1 intron 1 variant IVS1+12(A) is associated with mild FXIII deficiency in Caucasian population. Ann Hematol. 2013 Jul; 92(7):975-9.

20. Ivaskevicius V*. **Biswas A***, Loreth R, Schroeder V, Ohlenforst S, Rott H, Krause M, Kohler H.P, Scharrer I, Oldenburg J. Mutations affecting disulphide bonds contribute to a fairly common prevalence of F13B gene defects: Results of a genetic study in 14 families with Factor XIII B deficiency. Haemophilia. 2010 Jul 1; 16(4):675-82.

21. Ivaskevicius V*, **Biswas A***, Bevans C, Schroeder V, Kohler H.P, Rott H, Halimeh S, Petrides P.E, Lenk H, Krause M, Miterski B, Harbrecht U, Oldenburg J. Identification of eight novel coagulation Factor XIII subunit A mutations: Implied consequences for structure and function. Haematologica. 2010 Jun; 95(6):956-62.

22. **Biswas A**, Ranjan R, Meena A, Akhter S, Yadav BK, Behari M, Saxena R. Prothrombotic factor and the risk of acute onset non-cardioembolic stroke in young Asian Indians. Thromb Res. 2009 Sep; 124(4):397-402.

23. **Biswas A**, Ranjan R, Meena A, Akhter S, Yadav BK, Munisamy M, Subbiah V,Behari M, Saxena R. Homocystine levels, polymorphisms and the risk of ischemic stroke in young Asian Indians.J Stroke Cerebrovasc Dis. 2009 Mar-Apr;18(2):103-10.

24. **Biswas A**, Tiwari AK, Ranjan R, Meena A, Akhter MS, Yadav BK, Behari M, Saxena Thrombin activatable fibrinolysis inhibitor gene polymorphisms are associated with antigenic levels in the Asian-Indian population but may not be a risk for stroke. Br J Haematol. 2008 Nov; 143(4):581-8.
25. **Biswas A**, Tiwari AK, Ranjan R, Meena A, Akhter MS, Yadav BK, Behari M, Saxena R. Prothrombotic polymorphisms, mutations, and their association with pediatric non-cardioembolic stroke in Asian-Indian patients. Ann Hematol. 2009 May;88(5):473-8.

26. **Biswas A**, Ranjan R, Meena A, Akhter S, Saut N, Frere C, Vague IJ, Shukla DK,Behari M, Saxena R. TAFI antigen level variability in young healthy Asian Indians; first report from Asia. Clin Biochem. 2008 Jun; 41(9):750-3. 2008 Mar 28.

27. **Biswas A**, Bajaj J, Ranjan R, Meena A, Akhter MS, Yadav BK, Sharma V, Saxena R. Factor V Leiden: is it the chief contributor to activated protein C resistance in Asian-Indian patients with deep vein thrombosis? Clin Chim Acta. 2008 Jun; 392(1-2):21-4. 2008 Feb 25.

28. **Biswas A**, Choudhry P, Mittal A, Meena A, Ranjan R, Choudhry VP, Saxena R. Recurrent abortions in Asian Indians: no role of factor V Leiden HongKong/Cambridge mutation and MTHFR polymorphism. Clin Appl Thromb Hemost. 2008 Jan; 14(1):102-4. Epub 2007 Dec 26.

Publications (Co- author)

1. Hopp MT, Alhanafi N, Paul George AA, Hamedani NS, **Biswas A**, Oldenburg J, Pötzsch B, Imhof D. Molecular Insights and Functional Consequences of the Interaction of Heme with Activated Protein C. Antioxid Redox Signal. 2020 Aug 20.

2. Bäuml CA, Paul George AA, Schmitz T, Sommerfeld P, Pietsch M, Podsiadlowski L, Steinmetzer T, **Biswas A**, Imhof D. Distinct 3-disulfide-bonded isomers of tridegin differentially inhibit coagulation factor XIIIa: The influence of structural stability on bioactivity. Eur J Med Chem. 2020 Sep 1;201:112474.

3. Ahmed S, Yadegari H, Naz A, **Biswas A**, Budde U, Saqlain N, Amanat S, Tariq S, Raziq F, Masood S, Pavlova A, Shamsi TS, Oldenburg J. Characterization of the mutation spectrum in a Pakistani cohort of type 3 von Willebrand disease. Haemophilia. 2019 Nov;25(6):1035-1044.

4. Akhter MS, **Biswas A**, Abdullah SM, Hobani Y, Ranjan R, Behari M, Saxena R. Influence of Interleukin-6 (IL-6) Promoter Gene Polymorphisms (-174G>C, -572G>C, and -597G>A) on IL-6 Plasma Levels and Their Impact in the Development of AcuteIschemic Stroke in Young Indians. Clin Appl Thromb Hemost. 2019 Jan-Dec;25:1076029619854136.

5. Pezeshkpoor B, Gazorpak M, Berkemeier AC, Singer H, Pavlova A, **Biswas A**, Oldenburg J. In silico and in vitro evaluation of the impact of mutations in non-severe haemophilia A patients on assay discrepancies. Ann Hematol. 2019 Apr 17.

6. Bäuml CA, Schmitz T, Paul George AA, Sudarsanam M, Hardes K, Steinmetzer T, Holle LA, Wolberg AS, Pötzsch B, Oldenburg J, **Biswas A**, Imhof D. Coagulation Factor XIIIa Inhibitor Tridegin: On the Role of Disulfide Bonds for Folding, Stability, anICKER;10.1021/acs.jmedchem.8b01982.

7. Paul George AA, Heimer P, Maaß A, Hamaekers J, Hofmann-Apitius M, **Biswas A**, Imhof D. Insights into the Folding of Disulfide-Rich µ-Conotoxins. ACS Omega. 2018 Oct 31;3(10):12330-12340.

8. Elayaperumal S, Fouzia NA, **Biswas A**, Nair SC, Viswabandya A, George B, Abraham A, Oldenburg J, Edison ES, Srivastava A. Type-3 von Willebrand disease in India-Clinical spectrum and molecular profile. Haemophilia. 2018 Nov;24(6):930-940.

9. Sharma A, Singh K, **Biswas A**, Ranjan R, Kishor K, Pandey H, Kumar R, Mahapatra M, Oldenburg J, Saxena R. Impact of interleukin 6 promoter polymorphisms (-174 G > C, -572 G > C and -597 G > A) on plasma IL-6 leve:833-838.

10. Czogalla KJ, Liphardt K, Höning K, Hornung V, **Biswas A**, Watzka M, Oldenburg J. VKORC1 and VKORC1L1 have distinctly different oral anticoagulant dose-response characteristics and binding sites. Blood Adv. 2018 Mar 27;2(6):691-702.

11. Naz A, **Biswas A**, Khan TN, Goodeve A, Ahmed N, Saqlain N, Ahmed S, Ujjan ID, Shamsi TS, Oldenburg J. Identification of novel mutations in congenital afibrinogenemia patients and molecular modeling of missense mutations in Pakistani population. Thromb J. 2017 Sep 12;15:24.

12. Akhter MS, **Biswas A**, Abdullah SM, Behari M, Saxena R. The Role of PAI-1 4G/5G Promoter Polymorphism and Its Levels in the Development of Ischemic Stroke in Young Indian Population. Clin Appl Thromb Hemost. 2017 Jan 1.

13. Ivaškevičius V, **Biswas A**, Garly ML, Oldenburg J. Comparison of F13A1 gene mutations in 73 patients treated with recombinant FXIII-A(2). Haemophilia. 2017 May; 23(3):e194-e203.

14. Sharma A, Singh K, **Biswas A**, Ranjan R, Kishor K, Kumar R, Pandey H, Kamal VK, Saxena R. Evaluation of role of FV, FVIII and APLAs in the pathogenesis of APCR in FV Leiden negative DVT patients: a study in India. J Thromb Thrombolysis. 2017 Jan 6.

15. Ivaškevičius V, Rühl H, Detarsio G, **Biswas A**, Gupta S, Davoli M, Quartara A, Pérez S, Raviola M, Oldenburg J. A novel missense mutation in the FGB gene (p.Gly302Arg) leading to afibrinogenemia. Predicted structure and function consequences. Hamostaseologie. 2016 Nov 8;36(Suppl. 2):S34-S38.

16. Ivaškevičius V, Pezeshkpoor B, **Biswas A**, Goldmann G, Horneff S, Gimbutyte M, Malciute L, Jurgutis R, Oldenburg J. Combined coagulation factor VIII and factor IX deficiency (CDF8F9) in a patient from Lithuania. Hamostaseologie. 2016 Nov 8;36(Suppl. 2):S29-S33.

17. Pezeshkpoor B, Castoldi E, Mahler A, Hanel D, Müller J, Hamedani NS, **Biswas A**, Oldenburg J, Pavlova A. Identification and functional characterization of a novel F5 mutation (Ala512Val, FVBonn)) associated with activated protein C resistance. J Thromb Haemost. 2016 Jul; 14(7):1353-63.

18. Sharma A, Bhakuni T, **Biswas A**, Ranjan R, Kumar R, Kishore K, Mahapatra M, Jairajpuri MA, Saxena R. Prevalence of Factor V Genetic Variants Associated With Indian APCR Contributing to Thrombotic Risk. Clin Appl Thromb Hemost. 2015 Dec 23.

19. Ivaškevičius V, Goldmann G, **Biswas A**, Westhofen P, Thomas A, Marquardt N, Horneff S, Klein C, Rühl H, Pötzsch B, Oldenburg J. Neoplasm-induced bleeding in inherited, heterozygous FXIII-A deficiency. Hamostaseologie. 2015; 35 Suppl 1:S32-5.

20. Ivaškevičius V, Thomas A, **Biswas A**, Ensikat H, Schmitt U, Horneff S, Pavlova A, Poetzsch B, Oldenburg J. A novel fibrinogen γ chain frameshift deletion (c.637delT) in a patient with hypodysfibrinogenemia associated with thrombosis. Hamostaseologie. 2015;35 Suppl 1:S27-31.

21. Würtinger P, Griesmacher A, Ivaškevičius V, **Biswas A**, Zehetbauer S, Oldenburg J, Hohenstein K, Weigel G. Novel point mutation in fibrinogen (Innsbruck; BβArg44Gly). Phenotypic differences compared to another mutation (fibrinogen Nijmegen) at the same position. Hamostaseologie. 2015; 35 Suppl 1:S22-6.

22. Singer H, **Biswas A**, Nuesgen N, Oldenburg J, El-Maarri O. NLRP7, Involved in Hydatidiform Molar Pregnancy (HYDM1), Interacts with the Transcriptional Repressor ZBTB16. PLoS One. 2015 Jun 29; 10(6):e0130416.

23. Nüsgen N, Goering W, Dauksa A, **Biswas A**, Jamil MA, Dimitriou I, Sharma A, Singer H, Fimmers R, Fröhlich H, Oldenburg J, Gulbinas A, Schulz WA, El-Maarri O. Inter-locus as well as intra-locus heterogeneity in LINE-1 promoter methylation in common human cancers suggests selective demethylation pressure at specific CpGs. Clin Epigenetics. 2015 Mar 1; 7(1):17.

24. Böhm M, Bäum C, Hardes K, Steinmetzer T, Roeser D, Schaub Y,Than M, **Biswas A**, Imhof D. Structure-activity relationship of Factor XIIIa-inhibitor Tridegin. J Med Chem. 2014 Dec 26; 57(24):10355-65.

25. **Biswas A**, Ivaskevicius V, Thomas A, Varvenne M, Brand B, Rott H, Haussels I, Ruehl H, Scholz U, Klamroth R, Oldenburg J. Eight novel F13A1 gene missense mutations in patients with mild FXIII deficiency: in silico analysis suggests changes in FXIII-A subunit structure/function. Ann Hematol. 2014 Oct;93(10):1665-76.

26. Czogalla KJ, **Biswas A**, Wendeln AC, Westhofen P, Müller CR, Watzka M, Oldenburg J. Human VKORC1 mutations cause variable degrees of 4-hydroxycoumarin resistance and affect putative warfarin binding interfaces. Blood 2013 Oct 10; 122(15):2743-50.

27. Yadegari H, Driesen J, Pavlova A, **Biswas A**, Ivaskevicius V, Klamroth R, Oldenburg J. Insights into pathological mechanisms of missense mutations in C-terminal domains of von Willebrand factor causing qualitative or quantitative von Willebrand disease. Haematologica. 2013 Aug; 98(8):1315-23.

28. Yadegari H, Driesen J, Pavlova A, **Biswas A**, Hertfelder HJ, Oldenburg J. Mutation distribution in the von Willebrand factor gene related to the different von Willebrand disease (VWD) types in a cohort of VWD patients. Thromb Haemost. 2012 Oct; 108(4):662-71.

29. Vineeta S, **Biswas A**, Kumar B, Saxena R. Protein C and Protein S: causativefactor for developing a hemorrhagic infarct in a HbE/Beta thalassemia child. Indian J Pediatr. 2010 Mar;77(3):316-7.

30. Ahmad F, Kannan M, Yadav V, **Biswas A**, Saxena R. Impact of thrombogenic mutations on clinical phenotypes of von Willebrand disease. Clin Appl Thromb Hemost. 2010 Jun;16(3):281-7.

31. Akhter MS, **Biswas A**, Ranjan R, Sharma A, Kumar S, Saxena R. The nitric oxide synthase 3 gene polymorphisms and their association with deep vein thrombosis in Asian Indian patients. Clin Chim Acta. 2010 Jan 28.

32. Akhter M, **Biswas A**, Ranjan R, Meena A, Yadav B, Sharma A, Saxena R. Plasminogen Activator Inhibitor-1(PAI-1) gene 4G/5G promoter polymorphism is seen in higher frequency in the Indian Deep Vein Thrombosis patients. Clin Appl Thromb Hemost. 2009 May 5.

33. Ranjan R, **Biswas A**, Meena A, Akhter MS, Yadav BK, Ahmed RH, Saxena R.Importance of investigating somatic and germline mutations in hemophilia A: A preliminary study from All India Institute of Medical Sciences, India. Clin Chim Acta. 2008Mar; 389(1-2):103-8.

34. Sharma V, **Biswas A,** Saxena R. Inherited warfarin resistance in Indian patients: does it occur? Clin Appl Thromb Hemost. 2007 Oct; 13(4): 455-6.

35. Ranjan R, **Biswas A**, Kannan M, Meena A, Deka D, Saxena R. Prenatal diagnosis of haemophilia A by chorionic villus sampling and cordocentesis: All India Institute of Medical Science experience. Vox Sang. 2007 Jan; 92(1):79-84.

36. Bhattacharya M, **Biswas A**, Kannan M, Mishra P, Kumar A, Choudhry VP, Saxena Clinicohematologic spectrum in patients with lupus anticoagulant.Clin Appl Thromb Hemost. 2005 Apr; 11(2): 191-5.

37. Ahmed R, Kannan M, **Biswas A**, Ranjan R, Choudhry VP, Saxena R. Use of Intron 1 and 22 inversions and linkage analysis in carrier detection of hemophilia A in Indians. Clin Chim Acta. 2006 Mar;365(1-2):109-12.

38. Ahmed RP, **Biswas A**, Kannan M, Bhattacharya M, Geisen C, Seifried E, Oldenburg J, Saxena R. First report of an FVII-deficient Indian patient carrying double heterozygous mutations in the FVII gene. Thromb Res. 2005; 115(6): 535-6.

39. Bhattacharyya M, **Biswas A**, Kannan M, Ahmed RP, Saxena R. Clinico-hematological spectrum of FXIII deficient Indian patients. Clin Appl Thromb Hemost. Vol. 11-4, pp. 475-480.

40. Ahmad F, Kannan M, **Biswas A**, Saxena R. Impact of 789Ala/Ala genotype on quantitative type of von Willebrand disease. Ann Hematol. 2009 May;88(5):479-83.

41. Bhattacharyya M, Kannan M, **Biswas A**, Kumar A, Saxena R. beta (2) Glycoprotein 1 in Indian Patients with SLE. Clin Appl Thromb Hemost. 2005 Apr; 11(2): 223-6.

42. Ahmad F, Kannan M, **Biswas A**, Choudhary VP, Saxena R. Gene tracking in a family of novel identical twins affected by severe type-III von Willebrand Disease (vWD). Thromb Res. 2007; 120(3): 459-62.

43. Kannan M, Yadav BK, Ahmad F, **Biswas A**, Saxena R. Modulation of clinical phenotype of Glanzmann's Thrombasthenia by Thrombogenic mutations. Clin Chim Acta. 2009 May;403(1-2):156-8.

44. Gupta PK, Ahmed RP, Bhattacharyya M, Kannan M, **Biswas A**, Kalra V, Saxena R. Protein C system defects in Indian children with thrombosis. Ann Hematol. 2005 Feb; 84(2): 85-8. 2004 Sep 23.

45. Panigrahi I, Chatterjee T, **Biswas A**, Behari M, Choudhry VP, Saxena R. Role of MTHFR C677T polymorphism in ischemic stroke. Neurol India. 2006 Mar; 54(1): 48-50.

46. Chawla D, Deorari AK, Saxena R, Paul VK, Agarwal R, **Biswas A**, Meena A. Vitamin K1 versus Vitamin K3 for Prevention of Subclinical Vitamin Deficiency: A Randomized Controlled Trial. Indian Pediatr. 2007 Nov 7; 44(11): 817-822.

Indexed Reviews:

1. **Biswas A**, Ivaskevicius V, Seitz R, Thomas A, Oldenburg J. An update of the mutation profile of Factor 13 A and B genes. *Blood Rev*. **2011** Sep;25(5):193-204. IF: 6.75

2. **Biswas A**, Ivaskevicius V, Thomas A, Oldenburg J. Coagulation factor XIII deficiency. Diagnosis, prevalence and management of inherited and acquired forms. *Hamostaseologie.* 2014;34(2):160-6. IF: 1.6

Cover Image:

1. Biswas et al.. Coagulation Factor XIIIA Subunit Missense Mutations Affect Structure and Function at the Various Steps of Factor XIII Action. Hum Mutat. 2016 Oct;37(10):1030-41. https://onlinelibrary.wiley.com/doi/abs/10.1002/humu.23115; https://doi.org/10.1002/humu.23115

2. Biswas 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: PlosOne, FEBS letters, Journal of the Neurological Sciences, Blood, Thrombosis and Haemostasis, Journal of Thrombosis and Haemostasis, International Journal of Laboratory Hematology, Biochim Biophys Acta, FEBS J, Clinical and Experimental Medicine, IJMS, Journal of Experimental Medicine, BMC genetics, Haemophilia.
2. Editorial board of PlosOne
3. Topic editor of IJMS
4. Guest editor JCM special issue “Thrombosis, Blood Clotting and Vascular Biology”