Dr. D. Dash

Dr. Debabrata Dash

Professor

MBBS, MD, PhD, DSc, DNB, FAMS, FNA, FASc
J.C. Bose National Fellow (DST), Tata Innovation Fellow (DBT)
Alexander von Humboldt Fellow, Commonwealth Fellow

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ResearchGate Profile
Google Scholar Profile

Area of Research Interests

Since 1986 our lab is engaged in the study of platelet signal transduction and thrombus biology. Our present research interests are following;

- Effect of nanomaterials (graphene, nanosilver, nanodiamond and nanogold) on thrombus biology
- Application of nanomaterials in diagnosis and treatment of arterial thrombosis
- Factors regulating platelet life span, senescence and apoptosis
- Energy metabolism in activated platelets
- Platelet activity in neurodegenerative disorders
- Post-translationally modified proteome in platelets
- Platelet transcriptomics and microRNAs
- Platelet glycomics
- Development of sensor against cardiovascular disorders
- Functional implications of mutations in platelet proteins

Brief Profile

Faculty in the Department of Biochemistry, Institute of Medical Sciences, Banaras Hindu University, since 27th January, 1986.

(A) Academic Profile:

- MBBS (1980) - Utkal University
- MD (*Biochemistry*) (1985) - BHU
- DNB (*Biochemistry*) (1987)
- PhD (*Biochemistry*) (1992) - BHU
- DSc (*Medicine-Biochemistry*) (2001) - Utkal University
- DSc (*Biochemistry*) (2007) - BHU

(B) Professional Profile:

Fellowships

- Fellowship of National Academy of Medical Sciences, New Delhi (FAMS) (2011)
- Tata Innovation Fellowship (Department of Biotechnology, Ministry of Science & Technology, Govt. of India) (2012)
- Fellowship of Indian National Science Academy, New Delhi (FNA) (2013)
- Fellowship of Indian Academy of Sciences, Bangalore (FASc) (2015)
- J. C. Bose National Fellowship (Department of Science & Technology, Ministry of Science & Technology, Govt. of India) (2018)

International Fellowships

- UNESCO-ICRO Fellowship (1990) - Catholic University of Chile, Chile
- AMBO Fellowship (1992) - Osaka University, Japan
- Alexander von Humboldt Fellowship (1993-1995, 1998, 2010, 2018) - Munich University, University of Wüzburg and University of Mainz, Germany
- August-Lenz-Stiftung Fellowship (1995) - Munich University, Germany
- Commonwealth Fellowship (2005-2006) - University of Reading, UK
- DBT Overseas Associateship (2008) - Harvard Medical School, USA

Orations

- Delivered State-of-Art Lecture during Humboldt Colloquium on "Comparative Endocrinology and Physiology" organized by Alexander von Humboldt-Stiftung, Germany, and RTM Nagpur University, Nagpur, from January 7-9, 2019 at Nagpur
- Delivered Invited Lecture at Institute of Nanoscience and Technology (INST), Mohali on December 06, 2018
- Dr. B. Naganna Oration (2018) –Conferred by Sri Ventkateswara Institute of Medical Sciences, Tirupati, on November 27, 2018
- Delivered Plenary Lecture at International Conference on Nanoscience and Technology (ICONSAT 2018) held from March 21-23, 2018, at IISc, Bangalore, organized by Nano Mission, Department of Science & Technology, Govt. of India, and Centre for Nano and Soft Matter Sciences (CeNS), Bangalore
- Delivered Guest Lecture during Humboldt Colloquium on **"**Germany and India – Partners in Education and Research" organized by Alexander von Humboldt-Stiftung, Germany, from November 23-25, 2017 at IISc, Bengaluru
- Delivered Guest Lecture during 28th Mid-Year Meeting of Indian Academy of Sciences from June 30 - 1 July, 2017 at IISc, Bengaluru (https://www.youtube.com/watch?v=lN4qFZoaE2Q)
- Delivered Plenary Lecture at 104th Indian Science Congress held from January 03-07, 2017, at Tirupati in the Session "Frontiers in Hemostasis and Thrombosis"
- Dr. V.R. Khanolkar Oration (2016) – Awarded by the National Academy of Medical Sciences
- Prof. S.K. Bhatnagar Oration in UPAPSICON-2014 – Conferred by the U.P Chapter of Association of Plastic Surgeons of India
- Dr. Ajith Singh Saini Oration (2012): Awarded by the Association of Medical Biochemists of India
- G. P. Talwar Oration Award (2011) - Awarded by the Association of Clinical Biochemists of India
- Dr. Sita Devi Oration Award (2009): Awarded by the Association of Medical Biochemists of India

Awards

- Received 'Most Popular Teacher' award by National Medicos Organization in 2019
- Awarded **National Research Award in Nano Science & Technology** for the year 2018 by the Department of Science & Technology, Ministry of Science & Technology, Govt. of India, presented by Prof. CNR Rao, on March 21, 2018
- Awarded **Biju Patnaik Award for Scientific Excellence** for the year 2017 by Odisha Science Academy and Ministry of Science & Technology, Govt. of Odisha
- Awarded **Sun Pharma Research Award-2015** (under 'Medical Research' category) *(Sun Pharma Science Foundation)* on April 28, 2017 by Mr. J.P. Nadda, the Union Minister of Health and Family Welfare, Govt. of India and prof. Mike Turner, Wellcome Trust, UK
- Invited by the **Secretariat, President of India, to present research innovation** pertaining to gold nanorod-based photothermal lysis of pathological thrombus during the meeting of National Innovation Foundation and the Innovation Clubs at West Hall, Rashtrapati Bhavan on March 08, 2017
- **Nominated Member, Scientific Advisory Group, Division of *Basic Medical Sciences***, Indian Council of Medical Research in 2016
- **Recognized by Mr. Pranab Mukherjee, President of India, as President's Inspired Teacher** ('value-*oriented and mission-driven' teacher par excellence*) in June 2015. Invited to stay in Rashtrapati Bhavan from June 06-12, 2015, during which held discussions on *Higher Education Policy of Central Government* with Mrs. Smriti Zubin Irani, Hon'ble Minister of HRD, Prof. H. Devaraj, Vice-Chairman of UGC, and Prof. Arvind Panagariya, Vice-Chairman of NITI Aayog (https://en.wikipedia.org/wiki/Inspired_Teacher).
- **Invited by the Secretariat, President of India**, to present biosensor-based research innovations during the meeting of National Innovation Foundation and the Innovation Clubs at West Hall, Rashtrapati Bhavan on March 10, 2015
- Awarded **Basanti Devi Amir Chand Prize-2012** (ICMR) on January 19, 2016 by Mr. J.P. Nadda, the Union Minister of Health and Family Welfare, Govt. of India
- Awarded the **Vice-Chancellor's Award for Excellence in Research** by Dr. Jayant Narlikar, Chief Guest, at Convocation 2014 of Banaras Hindu University
- Awarded the **Prof. C.N.R. Rao Education Foundation Award** for Excellence in Scientific Research-2013" in

2014 by CNR Rao Education Foundation and Banaras Hindu University

- Awarded the **Vice-Chancellor's Medical Research Award-2014** by Dr. Lalji Singh, Vice-Chancellor, Banaras Hindu University, on the occasion of the Annual Day of the Institute of Medical Sciences, BHU, in 2014
- Awarded the **Order of Academic Excellence in Publication** in 2013 by the Institute of Medical Sciences, Banaras Hindu University
- Awarded the **Pitabus Jamuna Burma Gold Medal** as Best Young Biochemist in 1988 by the Association of Clinical Biochemist of India.

1. Chaurasia, S.N., Khuswaha, G., Kulkarni, P.P., Mallick, R.L., Latheef, N.Z., Mishra, J.K. & **Dash, D**. **(2019) Haematologica**, In Press (DOI:10.3324/haematol.2019.217463) (Platelet HIF-2α promotes thrombogenicity through PAI-1 synthesis and extracellular vesicle release) **(Impact Factor: 9.09)**
2. Kailashiya, J., Gupta, V. & Dash, **D. (2019) Oncotarget**, 10: 5835-5846 (Engineered human platelet-derived microparticles as natural vectors for targeted drug delivery) **(Impact Factor: 5.168)**
3. Gautam, D., Tiwari, A., Chaurasia, R. & **Dash, D., (2019) Sci. Rep.** 9: 8346 (Glutamate induces synthesis of thrombogenic peptides and extracellular vesicle release from human platelets) **(Impact Factor: 4.122)**
4. Kulkarni, P., Tiwari, A., Singh, N., Gautam, D., Sonkar, V., Agarwal, V., **Dash, D. (2018) Haematologica** (Small-molecule modulators of platelet energy metabolism are potential antithrombotic agents) **(Impact Factor: 9.09)**(In press)
5. Chauhan, P.S., Singh, D.K., **Dash, D.,** Singh, R., **(2018) Phytomedicine** (Intranasal curcumin regulates chronic asthma in mice by modulating NF-κB activation and MAPK signaling) **(Impact Factor: 3.126)** (In press)
6. Ansari, N.A., Chaudhary, D.K., **Dash, D. (2018) Glycobiology** 28: 207-213 (Modification of histone by glyoxal: recognition of glycated histone containing advanced glycation adducts by serum antibodies of type 1 diabetes patients)**(Impact Factor: 3.664)**
7. Kumari, A., **Dash, D.,** Singh, R. **(2017), Inflammopharmacology** 25: 329-341 (Curcumin inhibits lipopolysaccharide (LPS)-induced endotoxemia and airway inflammation through modulation of sequential release of inflammatory mediators (TNF-α and TGF-β1) in murine model)**(Impact Factor: 3.304)**
8. Tyagi, N., **Dash, D.,** Singh, R. **(2016), Inflammopharmacology** 24: 335-345 (Curcumin inhibits paraquat induced lung inflammation and fibrosis by extracellular matrix modifications in mouse model)**(Impact Factor: 3.304)**
9. Subhashini, Chauhan, P.S., **Dash, D.**, Paul, B.N., Singh, R. **(2016)** ***Int. Immunopharmacol.*** 31: 200-206 (Intranasal curcumin ameliorates airway inflammation and obstruction by regulating MAPKinase activation (p38, Erk and JNK) and prostaglandin D2 release in murine model of asthma)**(Impact Factor: 2.551)**
10. Singh, N., Varma, A., Verma, A., Maurya, B.N. & **Dash, D. (2016),** ***Nano Res.*** 9: 2327–2337 (Relief from vascular occlusion using photothermal ablation of thrombus with a multimodal perspective)**(Impact Factor: 8.893)**
11. Sonkar, V.K., Kulkarni, P.P., Chaurasia, S.N., Dash, A., Jauhari, A., Parmar, D., Yadav, S. & **Dash, D. (2016),** ***Mol. Med.*** 22: 224-232 (Plasma fibrinogen is a natural deterrent to amyloid beta-induced platelet activation and neuronal toxicity)**(Impact Factor: 3.340)**
12. Sonali, Singh, R.P., Singh, N., Sharma, G., Vijayakumar, M.R., Koch, B., Singh, S., Singh, U., **Dash, D,** Pandey, B.L. & Muthu, M.S. **(2016)** ***Drug Delivery***, 10: 1-37 (Transferrin liposomes of docetaxel for brain targeted cancer applications: formulation and brain theranostics) **(Impact Factor: 3.09)**
13. Kumari, S., Chaurasia, S.N., Nayak, M.K., Mallick, R.L. & **Dash, D. (2015)** ***J. Biol. Chem.*** 290: 12290-12299 (Sirtuin inhibition induces apoptosis-like changes in platelets and thrombocytopenia) **(Impact Factor: 4.01)** ***(Complimentary letter by the Editor) (cited by 'Nature India')***
14. Mahanta, A.K., Mittal, V., Singh, N., **Dash, D**., Malik, S., Kumar, M., Maiti, P. **(2015)** ***Macromolecules*** 48: 2654–2666 (Polyurethane-Grafted Chitosan as New Biomaterials for Controlled Drug Delivery). **(Impact Factor: 5.91)**

15. Kailashiya, J., Singh, N., Singh, S.K., Agrawal, V. and **Dash, D. (2015)** ***Biosens. Bioelectron.*** 65: 274-280 (Graphene oxide-based biosensor for detection of platelet-derived microparticles: a potential tool for thrombus risk identification) **(Impact Factor: 8.17)** ***(cited by 'Nature India')***

16. Mallick, R.L., Kumari, S., Singh, N., Sonkar, V.K. & **Dash, D. (2015)** ***Cell Calcium,*** 57: 300-311 (Prion protein fragment (106-126) induces prothrombotic state by raising platelet intracellular calcium and microparticle release) **(Impact Factor: 3.17)**

17. Kumari, S., Chaurasia, S.N., Kumar, K. & **Dash, D. (2014)** ***Thromb. Res.*** 134: 1311-1315 (Anti-apoptotic role of sonic hedgehog on blood platelets) **(Impact Factor: 2.77)**

18. Nayak, M.K., Dash, A., Singh, N. & **Dash, D. (2014)** ***PLoS ONE,*** 9: e105049 (Aspirin delimits platelet life span by proteasomal inhibition) **(Impact Factor: 2.76)**

19. Sonkar, V.K., Kulkarni, P.P. & **Dash, D. (2014)** ***FASEB J.*** 28: 1819-1829 (Amyloid β peptide stimulates platelet activation through RhoA-dependent modulation of actomyosin organization) **(Impact Factor: 5.59)** ***(cited by 'Nature India')***

20. Kumari, S., Singh, M. K., Singh, S. K., Grácio, J.J.A. & **Dash, D. (2014)** ***Nanomedicine*** 9: 427-440 (Nanodiamond activates blood platelets and induces thromboembolism) **(Impact Factor: 5.009)**

21. Mishra, A., Singh, S.K., Dash, D., Aswal, V.K., Maiti, B., Misra, M. & Maiti, P. (2014) Acta Biomater. 10: 2133-2146 (Self-assembled aliphatic chain extended polyurethane nanobiohybrids: Emerging hemocompatible biomaterials for sustained drug delivery) **(Impact Factor: 6.38)**

22. Mallick, R.L. & **Dash, D. (2014)** ***Proc. Indian Natn. Sci. Acad.*** 80: 77-81 (Morphogen-induced platelet activation and cell signaling)

23. Vaidya, B., Nayak, M.K., **Dash, D.**, Agrawal, G.P. & Vyas, S.P. **(2014)** ***Drug Delivery.*** 28: 1-7 (Development and characterization of highly selective target-sensitive liposomes for the delivery of streptokinase: *In vitro/in vivo* studies) **(Impact Factor: 3.09)**

24. Nayak, M.K., Kulkarni, P.P. & **Dash, D. (2013)** ***J. Biol. Chem.*** 288: 6826-6834 (Regulatory role of proteasome in determination of platelet life span) **(Impact Factor: 4.01)** ***(cited by 'Nature India')***

25. Kumari, S. & **Dash, D. (2013)** ***Biochimie,*** 95: 1252-1257 (Regulation of β-catenin stabilization in human platelets) **(Impact Factor: 3.18)**

26. Singh, N. K., Gupta, A., Behera, D.R. & **Dash, D. (2013)** ***Rheumatol. Int.*** 33: 2331-2336 (Elevated plasminogen activator inhibitor type-1 (PAI-1) as contributing factor in pathogenesis of hypercoagulable state in antiphospholipid syndrome) **(Impact Factor: 1.702)**

27. Singh, N. K., Behera, D.R., Yadav, D.P., Gupta, A., **Dash, D.** & Bandyopadhyay, D. **(2013)** ***Int. J. Rheumatol. Clin. Immunol.*** 1: 1-8 (Role of platelets in the pathogenesis of antiphospholipid syndrome)

28. Singh, N. K., Singh, S. K., **Dash, D.**, Gonugunta, P., Misra, M. & Maiti, P. (2013) J. Phys. Chem. C, 117: 10163-10174 (CNT induced β-phase in polylactide: unique crystallization, biodegradation, and biocompatibility) **(Impact Factor: 4.48)**

29. Vishwas, D.K., Mukherjee, A., Haldar, C., **Dash, D.** & Nayak, M.K. **(2013)** ***Exp. Gerontol.*** 48: 168-182 (Improvement of oxidative stress and immunity by melatonin: An age dependent study in golden hamster) **(Impact Factor: 3.22)**

30. Ansari, N.A. & **Dash, D. (2013)** ***ISRN Biochemistry,*** (DOI: 10.1155/2013/198065) 2013: 1-5 (Biochemical studies on methylglyoxal-mediated glycated histones: implications for presence of serum antibodies against the glycated histones in patients with type 1 diabetes mellitus)

31. Ansari, N.A. & **Dash, D. (2013)** ***Aging and Disease,*** 4: 50-56 (Amadori glycated proteins: role in production of autoantibodies in diabetes mellitus and effect of inhibitors on non-enzymatic glycation) **(Impact Factor: 1.67)**

32. Singh, S. K., Singh, M. K., Kulkarni P. P., Sonkar V. K., Grácio, J.J.A. & **Dash, D. (2012)** ***ACS Nano,*** 6: 2731-2740 (Amine-modified graphene: Thrombo-protective safer alternative to graphene oxide for biomedical applications) **(Impact Factor: 13.709)**

33. Singh, S. K., Goswami, K., Sharma, R.D., Reddy, M.V.R., & **Dash, D. (2012)** ***Int. J. Nanomedicine,*** 7: 1023-1030 (Novel microfilaricidal activity of nanosilver) **(Impact Factor: 4.380)**

34. Dash, A., Singh, A. P., Chaudhary, B. R., Singh, S. K., **Dash, D. (2012)** ***Nano-Micro Lett.*** 4: 158-165 (Effect of silver nanoparticles on growth of eukaryotic green algae) **(Impact Factor: 7.381)**

35. Singh, N. K., Singh, S. K., **Dash, D.**, Purkayastha, B.P.D., Roy, J.K. & Maiti, P. **(2012)** ***J. Mater. Chem.*** 22: 17853-

17863 (Nanostructure controlled anti-cancer drug delivery using poly(ε-caprolactone) based nanohybrids) **(Impact Factor: 6.626)**

36. Mishra, A., Mukherjee, A., Roy, A., Singh, G., Shrestha, P., Singh, R.R., Rohil, V., Baral, N., Majhi, S & **Dash, D. (2012)** ***Nepal Med. Coll. J.*** 14: 49-52 (Distribution and ethnic variation of beta thalassemia mutations in Nepal)

37. Shrivastava, S. & **Dash, D. (2012)** ***Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci.*** 82: 29-35 (Nanotechnology in Food Sector and Agriculture)

38. Singh, S.K., Singh, M.K., Nayak, M.K., Kumari, S., Shrivastava, S., Grácio, J.J.A. & **Dash, D. (2011)** ***ACS Nano,*** 5: 4987-4996 (Thrombus inducing property of atomically thin graphene oxide sheets) **(Impact Factor: 13.709)**

39. Nayak, M.K., Singh, S.K., Roy, A., Prakash, V., Kumar, A. & **Dash, D. (2011)** ***Thromb. Haemost.*** 106: 624-635 (Anti-thrombotic effects of selective estrogen receptor modulator tamoxifen) **(Impact Factor: 4.952)**

40. Kumari, S. & **Dash, D. (2011)** ***FEBS Lett.*** 585: 2345-2351 (Melatonin elevates intracellular free calcium in human platelets by inositol 1,4,5-trisphosphate independent mechanism) **(Impact Factor: 2.999)**

41. Nayak, M.K., Kumar, K. & **Dash, D. (2011)** ***Cell Calcium,*** 49: 226-232 (Regulation of proteasome activity in activated human platelets) **(Impact Factor: 3.71)**

42. Vaidya, B., Nayak, M.K., **Dash, D.**, Agrawal, G.P. & Vyas, S.P. **(2011)** ***Int. J. Pharm.*** 403: 254-261 (Development and characterization of site specific target sensitive liposomes for the delivery of thrombolytic agents) **(Impact Factor: 3.862)**

43. Singh, S.K., Singh, M.K., Nayak, M.K., Kumari, S., Grácio, J.J.A. & **Dash, D. (2011)** ***Carbon,*** 49: 684-692 (Size distribution analysis and physical / fluorescence characterization of graphene oxide sheets by flow cytometry) **(Impact Factor: 7.082)**

44. Singh, K.A., Nayak, M.K., Jagannadham, M.V. & **Dash, D. (2011)** ***Blood Cells Mol. Dis.,*** 47: 129-132 (Thombolytic along with antiplatelet activity of crinumin, a protein constituent of Crinum asiaticum) **(Impact Factor: 1.836)**

45. Shrivastava, S., Singh, S.K, Mukhopadhyay, A., Sinha, A.S.K., Mandal, R.K. & **Dash, D. (2011)** ***Colloids Surf. B: Biointerfaces,*** 82: 241-246 (Negative regulation of fibrin polymerization and clot formation by nanoparticles of silver) **(Impact Factor: 3.99)**

46. Singh, S.K., Singh, M.K., Nayak, M.K., Kumari, S., Grácio, J.J.A. & **Dash, D. (2011)** ***J. Biomed. Nanotechnol.*** 7: 30-31 (Characterization of graphene oxide by flow cytometry and assessment of its cellular toxicity) **(Impact Factor: 5.068)**

47. Shrivastava, S. & **Dash, D. (2010)** ***Nano-Micro Lett.*** 2: 164-168 (Label-free colorimetric estimation of proteins using nanoparticles of silver) **(Impact Factor: 7.381)**

48. Shrivastava, S., Bera, T., Singh, S., Singh, G., Ramachandrarao, P. & **Dash, D. (2009)** ***ACS Nano,*** 3: 1357-1364 (Characterization of anti-platelet properties of silver nanoparticles) **(Impact Factor: 13.709)** ***(Complimentary letter by the Editor) (cited by 'Nature India' and 'Science Now') (The publication was press-released by American Chemical Society)***

49. Singh, S.K., Shrivastava, S., Nayak, M.K., Sinha, A.S.K., Jagannadham, M.V. & **Dash, D. (2009)** ***J. Bionanosci.*** 3: 88-96 (Stabilization of protein by biocompatible nanoparticles of silver)

50. Awasthi, K., Singh, D.P., Singh, S., **Dash, D.** & Srivastava, O.N. **(2009)** ***New Carbon Materials,*** 24: 301-306 (Attachment of biomolecules (protein and DNA) to amino-functionalized carbon nanotubes) **(Impact Factor: 0.916)**

51. Shrivastava, S. & **Dash, D. (2009)** ***J. Nanotech.*** 2009: 1-14 (Article ID 184702, doi:10.1155/2009/184702) (Applying Nanotechnology to Human Health: Revolution in Biomedical Sciences) **(Impact Factor: 3.404)**

52. Shrivastava, S. & **Dash, D. (2009)** ***J. Nano Res.*** 6: 1-14 (Agrifood Nanotechnology: A tiny revolution in food and agriculture)

53. Kumar, A., Rai, A.K., Basu, S., **Dash, D.** & Singh, J.S. **(2008)** ***Pediatrics,*** 121: e673-e677 (Cord blood and breast milk iron status in maternal anemia) **(Impact Factor: 5.51)**

54. Kumar, A., Panigrahi, I., Basu, S., & **Dash, D**. **(2008)** ***Neonatology,*** 94: 96-99 (Urinary malondialdehyde levels in newborns following delivery room resuscitation) **(Impact Factor: 2.688)**

55. Shrivastava, S., Bera, T., Roy, A., Singh, G., Ramachandrarao, P. & **Dash, D. (2007)** ***Nanotechnology,*** 18: 225103 (Characterization of enhanced antibacterial effects of novel silver nanoparticles) **(Impact Factor: 3.404)**

56. Gupta, R., Chakrabarti, P., Dikshit, M. & **Dash, D. (2007)** ***Biochim. Biophys. Acta,*** 1773: 131-140 (Late signaling in

the activated platelets upregulates tyrosine phosphatase SHP1 and impairs platelet adhesive functions: regulation by calcium and *Src* kinase) **(Impact Factor: 3.679)**

57. Maiti, R., Agrawal, N.K., **Dash, D.** & Pandey, B.L. **(2007)** ***Vascular Pharmacology,*** 47: 118-124 (Effect of Pentoxifylline on inflammatory burden, oxidative stress and platelet aggregability in hypertensive type 2 diabetes mellitus patients) **(Impact Factor: 3.607)**

58. Agrawal, N.K., Maiti, R., **Dash, D.** & Pandey, B.L. **(2007)** ***Pharmacological Research,*** 56: 118-123 (Cilostazol reduces inflammatory burden and oxidative stress in hypertensive type 2 diabetes mellitus patients) **(Impact Factor: 4.897)**

59. Chakrabarti, P., **Dash, D.** & Panda, B.K. **(2006)** ***Clin. Chim. Acta,*** 364: 363-364 (Detection of $^{G}\gamma(^{A}\gamma\delta\beta)^{0}$ Thalassemia in North India) **(Impact Factor: 2. 926)**

60. Chakrabarti, P., Gupta, R., Mishra, A., Rai, M., Singh, V.P., & **Dash, D. (2005)** ***Clin. Biochem.*** 38: 576-578 (Spectrum of β-thalassemia mutations in North Indian states: a β-thalassemia trait with two common Indian mutations in *cis*) **(Impact Factor: 2. 584)**

61. Karim, Z.A., Mukhopadhyay, S., Ramars, A. S. S. & **Dash, D. (2004)** ***Biochim. Biophys. Acta,*** 1693: 147-157 (Sustained stimulation of platelet thrombin receptor is associated with tyrosine dephosphorylation of a novel p67 peptide in a manner regulated by extracellular calcium) **(Impact Factor: 3.679)**

62. Wadhawan, V., Karim, Z.A., Mukhopadhyay, S., Gupta, R., Dikshit, M. & **Dash, D. (2004)** ***Arch. Biochem. Biophys.*** 422: 183-190 (Platelet storage under *in vitro* condition is associated with calcium-dependent apoptosis-like lesions and novel reorganization in platelet cytoskeleton) **(Impact Factor: 3.118)**

63. Chakrabarti, P., Karim, Z.A., Gupta, R., Wadhawan, V., Mukhopadhyay, S. & **Dash, D. (2004)** ***Ind. J. Med. Biochem.*** 8: 56-60 (Biochemical characterization of Glanzmann's thrombasthenia, a rare genetic disorder affecting platelet function)

CHAPTERS IN BOOKS

1. Singh, S.K., Kulkarni, P.P. & **Dash, D. (2013)** Biomedical applications of nanomaterials: an overview. In ***Bio-Nanotechnology: A Revolution in Food, Biomedical and Health Sciences*** (eds. Bagchi, D., Bagchi, M., Moriyama, H. & Shahidi, F.) Wiley-Blackwell, USA, Part 1, Chap. 1, pp. 3-33

2. Singh, S.K., Kulkarni, P.P. & **Dash, D. (2013)** Biomedical applications of carbon-based nanomaterials. In ***Bio-Nanotechnology: A Revolution in Food, Biomedical and Health Sciences*** (eds. Bagchi, D., Bagchi, M., Moriyama, H. & Shahidi, F.) Wiley-Blackwell, USA, Part 4, Chap. 25, pp. 445-463

3. Singh, S.K., Shrivastava, S. & **Dash, D. (2011)** Metallic nanoparticles: biological perspective. In ***Metal Nanoparticles in Microbiology*** (eds. Rai, M. & Duran, N.) Springer-Verlag, Berlin, Chap. 13, pp. 285-298 *(DOI: 10.1007/978-3-642-18312-6_13)*

4. Shrivastava, S., Singh, S.K. & **Dash, D. (2011)** Applying nanotechnology to human health. In ***Nanotechnology in Health Care*** (eds. Gupta, P.D. & Udupa, N.) S.P. Publishers, India, Chap. 2, pp. 5-15

5. **Dash, D.,** Rao, G.R.K., & Das, B.K. **(1991)** Effect of propranolol on platelet membrane. in ***Biomembranes in health and disease*** (eds. Kidwai, A.M., Upreti, R.K., & Ray, P.K.) Today & Tomorrow's Printers & Publishers, vol. 2, pp. 433-438

6. Burma, D.P., Srivastava, S., Srivastava, A.K., Mahanti, S. & **Dash, D. (1986)** Conformational changes of 50S ribosomes during protein synthesis. in ***Structure, function and genetics of ribosomes*** (eds. Hardesty, B. & Kramer, G.) Springer Verlag, Chap. 25, pp. 438-453

Administrative Assignments

(1) Member, UGC Expert Committee for inspection of Deemed to be Universities
(2) National Convener, UGC-STRIDE (Component 1)
(3) Nominated Member, 'Special Advisory Group' of Division of Basic Medical Sciences, ICMR
(4) Chairman, ICMR Task Force on 'Nanomedicine'
(5) Member, Review Committee for DST INSPIRE Faculty Fellows in the area of Life Sciences-Biomedical Sciences
(6) Member, CSIR Task Force on 'Animal Sciences and Biotechnology Research Committee' (01 January, 2015 – 31 March, 2022)
(7) Member, DBT Task Force on 'Basic Research on Modern Biology' (06 July, 2017 – 05 July, 2020)
(8) Co-opted Member, SERB programme Advisory Committee (PAC) on 'Materials, Mining and Minerals Engineering' (2018-2021)
(9) Member, Evaluation Panel for Indo-Swiss Joint Research Proposals (DBT and Swiss National Science Foundation) (2018)
(10) Member, Industry-Relevant R & D (IRRD) Expert Committee, Science & Engineering Research Board (SERB) (2018)
(11) Invited Member, DBT Task Force on 'Nano-Biotechnology' (2016)
(12) Invited Member, DST Task Force on 'Health Sciences' (2016)
(13) Invited Member, DST Task Force under 'Cognitive Science Research Initiative' (2016)
(14) Member, UGC Expert Committee to evaluate Special Assistance Programme in the Department of Biochemistry, Indian Institute of Sciences, Bangalore
(15) Member, UGC Expert Committee for assessment of infrastructural & other Facilities of West Bengal University of Health Sciences under Section 12B of the UGC Act,1956
(16) Mentor, Scientific faculties at DBT-Regional Center for Biotechnology (RCB), Faridabad
(17) MCI Inspector to MD (Biochemistry) courses in medical colleges
(18) Member of Selection Committees for faculty positions in various universities and medical institutes
(19) Head of the Department of Biochemistry, Institute of Medical Sciences, BHU (2007)
(20) Chairman, Disciplinary and Enquiry Committees against staffs
(21) In Charge, Proposed 'Stem Cell Center' in the University
(22) Vice Chancellor's Nominee for Tender and Purchase Committees of Institute
(23) Member, NAAC Committee of the University
(24) Member, Ethical Committee of BHU
(25) Member, Standing Committee to examine cases of plagiarism in BHU
(26) Member, PhD Curriculum of University
(27) Administrative Warden of Institute Hostel
(28) Member, DST Unit on Nanoscience and Technology, BHU
(29) Member, Knowledge Management & Innovation Cell, BHU
(30) Member, Committee to allocate Startup Grant to new faculties in BHU
(31) Member, Committee to prepare multidisciplinary research proposal under Universities of Excellence (UoE) Scheme
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(33) Coordinator, PhD Course Work, Faculty of Medicine, BHU
(34) Member, Review Committee, Central Discovery Center, BHU

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Research interests

- Thrombus Biology
- Energy Metabolism and Mitochondrial Physiology in Platelets

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- Stent designing
- Platelet Metabolism & Glycomics

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- Platelet Transcriptomics & Micro RNAs
- Ecto-nucleotidiase Activity in Platelets

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- Platelet Signaling
- High-Resolution Respirometry in Platelets

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Research interests
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Interests
- Good Laboratory Practices
- Safety and Maintenance of the Laboratory

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- Safety and Maintenance of the Laboratory

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Lab Photo Gallery

D. Dash received Nano Science & Technology Award (2018)

D. Dash received Sun Pharama Award (2017)

D. Dash received ICMR Award (2016)

D. Dash received ICMR Award (2016)

Guest Lecture by Anil Chauhan (2015)

Department Group photo (2013)

Lab Group (2013)

D. Dash in Rastrapati Bhawan (2015)

Guest Lecture by Zubair A Karim (2015)