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09/2004-06/2010: Postdoctoral Research Fellow; CHB & Harvard Medical School, Boston, USA

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Highlight of Research Activities:

Original Peer Reviewed Article: 61 (Corresponding Author: 16, First Author: 6)

Patent Filed: 5 (4 as a major contributor)

Conference Proceedings: 30

Book Chapter: 4

PhD Thesis Supervised: 6

PhD Students currently working: 5

Research Associate: 1 Project Assistant: 1

Google Scholar citations: 2584, h-Index: 29, i-10 index: 52

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Complete List of Peer Reviewed Research Publications (*Corresponding Author):

- K.K. Saini, P. Chaturvedi, A. Sinha, M.P. Singh, M.A. Khan, A. Verma, M.A. Nengroo, S.R. Satrusal, S. Meena, A. Singh, S. Srivastava, J. Sarkar, <u>D. Datta*</u>, Loss of PERK function promotes ferroptosis by downregulating SLC7A11 (System Xc⁻) in colorectal cancer, *Redox Biology*, 65, (2023) 102833. (JIF:11.4)
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- 3. M. Maheshwari, N. Yadav, M. Hasanain, P. Pandey, R. Sahai, K. Choyal, A. Singh, M.A. Nengroo, K.K. Saini, D. Kumar, K. Mitra, <u>D. Datta</u>, J. Sarkar, Inhibition of p21 activates Akt kinase to trigger ROS-induced autophagy and impacts on tumor growth rate, *Cell Death Dis*, 13 (2022) 1045. (JIF:9.68)
- 4. A. Verma, A. Singh, M.P. Singh, M.A. Nengroo, K.K. Saini, S.R. Satrusal, M.A. Khan, P. Chaturvedi, A. Sinha, S. Meena, A.K. Singh, <u>D. Datta*</u>, EZH2-H3K27me3 mediated KRT14 upregulation promotes TNBC peritoneal metastasis, *Nat Commun*, 13 (2022) 7344. (JIF:17.69)
- 5. M.A. Nengroo, M.A. Khan, A. Verma, <u>D. Datta</u>*, Demystifying the CXCR4 conundrum in cancer biology: Beyond the surface signaling paradigm, Biochim *Biophys Acta Rev Cancer*, 1877 (2022) 188790. (JIF:11.4)
- 6. M.A. Nengroo, A. Verma, <u>D. Datta</u>*, Cytokine chemokine network in tumor microenvironment: Impact on CSC properties and therapeutic applications, *Cytokine*, 156 (2022) 155916. (JIF:3.8)
- 7. R. Saklani, P.K. Yadav, M.A. Nengroo, S.L. Gawali, P.A. Hassan, <u>D. Datta</u>, D.P. Mishra, I. Dierking, M.K. Chourasia, An Injectable In Situ Depot-Forming Lipidic Lyotropic Liquid Crystal System for Localized Intratumoral Drug Delivery, *Mol Pharm*, 19 (2022) 831-842. (JIF:4.9)

- 8. A. Mahajan, A. Singh, <u>D. Datta</u>, D.S. Katti, Bioinspired Injectable Hydrogels Dynamically Stiffen and Contract to Promote Mechanosensing-Mediated Chondrogenic Commitment of Stem Cells, *ACS Appl Mater Interfaces*, 14 (2022) 7531-7550. (JIF:9.5)
- 9. A. Verma, A. Sinha, <u>D. Datta</u>*, Modulation of DNA/RNA Methylation by Small-Molecule Modulators and Their Implications in Cancer, *Subcell Biochem*, 100 (2022) 557-579.
- S. Singh, R. Ali, J. Miyan, V. Singh, S. Meena, M. Hasanain, S. Bhadauria, <u>D. Datta</u>, J. Sarkar, W. Haq, Facile synthesis of rapamycin-peptide conjugates as mTOR and Akt inhibitors, *Org Biomol Chem*, 19 (2021) 4352-4358. (JIF:3.2)
- 11. M.A. Nengroo, S. Maheshwari, A. Singh, A. Verma, R.K. Arya, P. Chaturvedi, K.K. Saini, A.K. Singh, A. Sinha, S. Meena, A. Gupta, A. Mishra, J. Sarkar, <u>D. Datta</u>*, CXCR4 intracellular protein promotes drug resistance and tumorigenic potential by inversely regulating the expression of Death Receptor 5, *Cell Death Dis*, 12 (2021) 464. (JIF:9.68)
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- R. Tiwari, N. Manzar, V. Bhatia, A. Yadav, M.A. Nengroo, <u>D. Datta</u>, S. Carskadon, N. Gupta, M. Sigouros, F. Khani, M. Poutanen, A. Zoubeidi, H. Beltran, N. Palanisamy, B. Ateeq, Androgen deprivation upregulates SPINK1 expression and potentiates cellular plasticity in prostate cancer, *Nat Commun*, 11 (2020) 384. (JIF:17.69)
- A. Shukla, R. Tyagi, S. Meena, <u>D. Datta</u>, S.K. Srivastava, F. Khan, 2D- and 3D-QSAR modelling, molecular docking and in vitro evaluation studies on 18beta-glycyrrhetinic acid derivatives against triple-negative breast cancer cell line, *J Biomol Struct Dyn*, 38 (2020) 168-185. (JIF:4.4)
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- 18. J. Gour, S. Gatadi, R. Akunuri, M.V. Yaddanapudi, M.A. Nengroo, <u>D. Datta</u>, S. Chopra, S. Nanduri, Catalyst-free facile synthesis of polycyclic indole/pyrrole substituted-1,2,3-triazoles, *Org Biomol Chem*, 17 (2019) 8153-8165. (JIF:3.2)
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Complete List of Filed Patents:

SI No.	Title	Country	Filed on (Date)	Role and Names of other inventors
1	Title: SMAC MIMETICS FOR TREATMENT OF CANCER, PROCESS FOR PREPARATION AND PHARMACEUTICAL COMPOSITION THEREOF, IND studies are on-going, will move for clinical trial soon	Filing Country: India and Outside India, Filing Date: International Application No. PCT/IN2021 /051182,	17 December 2021	Role: Principal Investigator or Applicant Haq W, Ali R, Singh A, Nengroo MA, Katekar R, Singh G, Vaishnav J, Afsar M, Singh M, Rath SK, Koley D, Mishra DP, Ramachandran R, Ampapathi RS, Gayen JR, Datta D.
2	Synthesis of 6/8((di(hetero-2-ylmethyl)amino)methyl)-7-hydroxyl-4-(methylthio)-2-oxo-2H-chromene-3-carbonotriles and uses thereof	Indian Patent Filed- 0267NF201 5 3988DEL20 15	08-Dec-15	Role: Major Contributor Goel A, Jha AK, Raghuvanshi R, Arya RK, Datta D.
3	Semicarbazone based chalcones as potent anticancer agents.	Indian Patent Filed- 0065NF201 4 3716DEL20 14	16-Dec- 2014	Role: Major Contributor Sashidhara KV, <u>Datta D,</u> Gayen JR, Avula SR, Singh A, Cheruvu SH, Singh R, Palnati GR, Maheshwari S, Arya RK, and Singh AK.

Complete Bio-Data of the Applicant: Dipak Datta, Ph.D

4	New Rapamycin conjugates and process for preparation	Indian Patent Filed-	08-Oct-14	Role: Major Contributor
	and process for proparation	0236NF201 4		Haq W, Ali R, <u>Datta D</u> and Arya RK.
		2865DEL20 14		
5	Aryl naphthyl methanone oxime (s) and process for	US Patent App.	30-Aug- 2013	Role: Minor Contributor
	preparation thereof	14/915,194		S Sanyal, A Kumar, N Chattopadhyay, J Lal, AK Trivedi, <u>D Datta,</u> SK Rath, et al.

Complete list of published book chapters, monographs:

S.No	Title	Author's Name	Publisher	Year of Publication
1.	Chapter Title: Epigenetic Impact of Stem Cell Toxicants	Singh AK, Singh A, Arya RK, Yadav N, Datta D*. (*Communicating Author)	Royal Society of Chemistry	2016
2.	Chapter Title: Tumor microenvironment and Cancer Stem cells: Therapeutic potential of Epigenetic Inhibitors. Book Name: 'Rediscovering Cancer: From Mechanism to Therapy'	Singh AK, Chaturvedi P, Datta D*. (*Communicating Author)	Apple Academic Press, USA.	2018
3	Chapter Title: Iron Vulnerability of Cancer Stem Cells: Role of ROS and Beyond	Nengroo MA, Sinha A, Datta D*. (*Communicating Author)	Springer Nature, USA	2021
4	Chapter Title: Modulation of DNA/RNA Methylation by Small-Molecule Modulators and Their Implications in Cancer	Verma A, Sinha A, Datta D*. (*Communicating Author)	Springer Nature, USA	2022

EMR Funding Details:

SI. No	Title of the project	Project Type/ Category	Budget	Govt./ Industry	Tenure	Current Status
1	PAN CSIR CANCER RESEARCH PROGRAM MAKING CANCER CARE AFFORDABLE Empowering Women's Health: Focusing on Breast and Gynaecological Cancers of Indian Relevance	CSIR-HQ HCP-40	48.5 Crores	CSIR	2021-26	On-going
2	Harnessing therapeutic potential of Novel Spisulosine derivative as robust autophagy inducer against Triple Negative Breast Cancer (TNBC) in-vitro and in-vivo.	ICMR-EMR 2019-1350	19.5 Lakhs	ICMR	2019-22	Completed

Complete Bio-Data of the Applicant: Dipak Datta, Ph.D.

3	Targeting Triple Negative Breast Cancer (TNBC) by a plant derived small molecule: An in-vitro and in- vivo approach	DST: SERB EMR/2016/006 935	36.5 Lakhs	DST	2018-21	Completed
4	Development of Novel Small Molecule SMAC Mimetics as Cancer Therapeutics	DBT-BIRAC BT/AIR0568/P ACE-15/18	46.5 Lakhs	DBT	2019-21	Completed

Honors/Awards:

Invited Speaker, RGCB Research Conference, 2023, Trivandrum, India

Invited Speaker, Aurigene Oncology Limited, 2023, Bangalore, India

Invited Speaker, Society for Biological Chemists (SBC) Meeting, 2022, SNU, Kolkata, India

Invited Speaker, International Conference on CDCT, 2018, IITR, Lucknow, India

Invited Speaker, Society for Biological Chemists (SBC) Meeting, 2017, JNU, New Delhi, India

Young Investigator Award, 2010, American Transplant Congress, San Diego, CA, USA

Young Investigator Award, 2007, American Transplant Congress, San Diego, CA, USA

1st. Class 1st. Award in BS in Biology, Burdwan University, West Bengal, India

Contribution to National/International issues:

- 1. Reviewer of CSIR, DBT, DST, ICMR EMR grant applications
- 2. Serve as an ad-hoc reviewer for peer reviewed international journals like Journal of Clinical Investigation, Oncogene, Cancer Letters, BBA etc.