Prof. Chandi C. Mandal, Ph.D., FRSB

Professor

Dean, School of Life Sciences

Dean, Interdisciplinary School of Health Sciences

Address:

Department of Biochemistry
School of Life Sciences
Central University of Rajasthan
Ajmer, Rajasthan, India
Email ID: ccmandal@curaj.ac.in / chandicmandal@gmail.com
Contact No: +91-9650569396
Website: https://bit.ly/curajchandicmandal

Brief biography:

Prof. Chandi C. Mandal: Professor and Dean, School of Life Sciences, Central University of Rajasthan, India [2013 to present]; Postdoctoral training from University of Texas Health Science Center at San Antonio, Texas, USA [2006-2012]; Ph.D. from Indian Institute of Technology at Kharagpur, India [2000-2005]; M.Sc. (Biochemistry) from Calcutta University, India.

Prof. Mandal's academic endeavour is not only reflected in publications, but he is also a recipient of Investigator Award from ASBMR, USA and fellowship Award from CPRIT, USA, and fellow of Royal Society of Biology (**FRSB**) UK. His recent and past research works have also been highlighted multiple times in Newspaper and reported in Television channels. He is a member of several professional science societies. He was enlisted in the "*TOP 2% scientists" in the world made by Stanford University in* ***2021*****, 2023, 2024, 2025** published in journal "Plos Biology". He has published 75 plus research articles with h-index 31, i10 index 49 & citation 3223 and also published 45 plus abstracts in various reputed conferences. His research interest is aimed at understanding the cellular signal transduction mechanisms involved in cancer, bone metastasis, pathological & physiological calcification and bone diseases like osteoporosis.

Editorial Board Members:

- Frontiers in Endocrinology-bone section 2015 to present
- BMC Cancer 2017 to present
- PLOS ONE 2017 to present
- Journal of Biochemical & Molecular Toxicology 2020 to present
- Current Drug Targets 2019 to 2025
- Oncology Reports 2019 to present
- Scientific Reports 2021 to present
- Indian Journal of Medical Research (ICMR) 2024 to present
- Expert review of anticancer therapy 2025 to present

Recent News:

Research on COVID-19 highlighted/ broadcasted in newspapers and television channels. https://bit.ly/covid19news-ccm

Topic Edited:

(i) Cancer and bone metastasis [Edited] in "Frontiers in Endocrinology" Link: https://bit.ly/cancer-bonemetastasis-chandi

(ii) Cancer and bone metastasis II [Edited] in Frontiers in Endocrinology" **Link:** https://bit.ly/bonemetastasisii

(iii) Bone cell differentiation in health and disease [Edited] in Frontiers in Endocrinology **Link:** https://bit.ly/osteoblast-health
(iv) Bone cell differentiation in health and disease II [Edited] in Frontiers in Endocrinology
(v) Lipids and cancer in "Current Drug Targets" [Edited] **Link:** https://bit.ly/lipid-cancer-chandi

Topic editing:

(vi) Bone Metastases in Endocrine Cancers: Advances in Diagnosis, Treatment, and Prevention in Frontiers in Endocrinology Link: https://bit.ly/bone-metastases
(vii) Mitochondria in Cancer Stem Cells: Implication in Molecular Diagnosis and Therapeutics in Frontiers in Molecular Biosciences Link: https://bit.ly/mitochondriachandi

Research Keywords:

Cancer & bone cell biology, Cellular signalling, Bone metastasis, Bone remodelling, Cancer calcification, Osteoblast, Osteoclast, Apoptosis, Epithelial to mesenchymal transition, Tumor microenvironment, Bone morphogenetic proteins, Cholesterol, Omega-3 fatty acids, Metformin

Education:

Year	Degree	Discipline	Institution/ Location
2006	Ph.D.	Biotechnology	Indian Institute of Technology Kharagpur, India
1998	M.S.	Biochemistry	University of Calcutta, Calcutta, India
1996	B.S.	Chemistry	University of Calcutta, Calcutta, India

Appointments:

Year	Position	Institution/ Location
2019 (March)-Present	Professor	Department of Biochemistry School of Life Sciences Central University of Rajasthan, Rajasthan, India
2022 (Aug)-2025 (August)	Professor & Head	Department of Biochemistry School of Life Sciences Central University of Rajasthan, Rajasthan, India
2019 (Mar) –2019 (July)	Professor & Head	Department of Biochemistry School of Life Sciences Central University of Rajasthan, Rajasthan, India
2016 – 2019 (Feb)	Associate Professor & Head	Department of Biochemistry School of Life Sciences Central University of Rajasthan, Rajasthan, India
2013 – 2015	Assistant Professor	Department of Biochemistry School of Life Sciences Central University of Rajasthan Rajasthan, India

2012 -2013	Assistant Professor	Department of Biotechnology School of Engineering & Technology Sharda University, Greater Noida (UP), India
2006-2012	Postdoctoral Fellow	Department of Pathology University of Texas Health Science Centre at San Antonio, Texas, USA
2000-2006	Research Scholar	Indian Institute of Technology Kharagpur, India

Awards:

Year	Subject
2024	FRSB (Fellow of Royal Society of Biology) (UK)
2014	**Travel Award** from DST for attending 9th International Conference on Anticancer Research, International Institute of Anticancer Research, Sithonia, Greece.
2010	**Investigator Travel Grant Recipient** in the 32nd Annual Meeting of the American Society for Bone and Mineral Research (ASBMR), Toronto, Canada.
2008	**Investigator Award** in 30th Annual Meeting of the American Society for Bone and Mineral Research (ASBMR), Montreal, Canada.
2007	**Travel Award** in the 29th Annual Meeting of the American Society for Bone and Mineral Research (ASBMR), Honolulu, Hawaii, USA.

Fellowships:

Year	Subject	Organization
2011-2012	Research Fellowship	Cancer Prevention and Research Institute of Texas (CPRIT), USA

Research Reported in Media & News:

Year	Subject Heading	Media/ News
2020 (July 8)	COVID-19 spread may hasten during winter, suggest Indian scientists, as study shows high caseload in colder regions	firstpost.com
2011 (Dec. 5)	S.A researchers to showcase benefit of for breast cancer patients	**KENS5 TV Channel** fish oil San Antonio, USA
2011 (Dec.5)	Fish oil shows promise against breast cancer that has spread	**KVUE** Austin, and **CBS** national TV Channel, USA
2010 (Nov. 24)	San Antonio Breast Cancer Symposium to unveil latest advances in research	University of Texas Health Science Centre News, USA
2010 (Dec. 2)	Breast Cancer meet to unveil advances	San Antonio Express News, USA
2009 (Sept. 16)	31st Annual Meeting of the American Society for Bone and Mineral Research	Medical Tribune, Congress News Wave, Japan

Professional Affiliations:

Year	Society

2015-Present	Member, Biotech Research Society
2015-Present	Member, India Science Congress
2013-Present	Member, Indian Association of Cancer Research (ICAR)
2006-2013	Member, American Society for Bone and Mineral Research (ASBMR)
2011-2013	Member, American Society of Clinical Oncology (ASCO)

Teaching Experiences: 13 Years

Subjects: Cell biology, Molecular Biology, Cancer biology, Clinical Biochemistry

Research Experiences: 25 Years

Research area: Cancer biology, Bone biology, Cell biology, Molecular biology, Cellular Signal transduction.

Individual Instruction:

Students/ Trainees supervised:

Year	Discipline	Students No
2013-present	PhD students (Awarded/supervising)	5/7
2012-present	MS students (supervised)	45
2012-2013	M.Tech. Students (supervised)	01

Other Activities:

- Dean, School of Life Sciences, Central University of Rajasthan (2022-present).
- Dean, School of Interdisciplinary Health Sciences, Central University of Rajasthan (2024-Present)
- Head, Department of Biochemistry (2022-2025), Central University of Rajasthan
- Head, Department of Vocational Studies and Skill Development (2020-2023), Central University of Rajasthan
- Head, Department of Biochemistry (2016 –2019), Central University of Rajasthan
- Faculty In-charge (2016-2019), University Health Centre, Central University of Rajasthan
- Syllabus/Paper setting for National/State Level examinations
- Member Secretary (Founder), Institutional Ethics Committee at Central University of Rajasthan (2014-2024)
- Member, Institutional Biosafety Committee at Central University of Rajasthan (2014-2022).
- DBT nominee, Institutional Biosafety Committee at Amity University, Jaipur, India (2016-2020)
- External experts, Institutional Biosafety Committee at Central University of Haryana, India (2024-present)
- External Member, Faculty council, Banasthali Vidyapith, Rajasthan (2021-2024)
- External Member, LARC committee, JNL medical college, Ajmer, Rajasthan (2024-present)
- Organizing secretary, International webinar “Integrated strategies to combat COVID-19 pandemic”, Central University of Rajasthan, August 20-21, 2020
- Organizing secretary, International Conference of Molecular Basis of Diseases and Therapeutics, Central University of Rajasthan, March 8-10, 2019
- Organizing Committee Member, 43rd Annual Meeting of The International Society Of Oncology and Biomarkers (ISOB), Sept, 2016, Chicago, USA

- Convener, National Conference on 20-21st March, 2024, organized by Department of Biochemistry, Central University of Rajasthan.
- Chairman, National Science Day 2020, 2021, 2024, 2025, at Central University of Rajasthan

Research Focuses:

- Cancer and bone metastasis
- Cancer and calcification
- Cold stress and cancer risk
- Bone Morphogenetic Protein and bone remodelling
- Phytochemicals and cancer prevention
- Epigenetics and Cancer
- Cholesterol, statins, omega-3 fatty acids and metformin on cancer metastasis.

Publications: Total No: 79 [Citations 3223, h-Index 31, i10-index 49]

1. Makwana SH, Poswal J, Yadav P, Singh SP and **Mandal CC***, Unexplored Oncogene PHK1 Interplays between Glucose Metabolism and Breast Cancer. Biochim Biophys Acta Mol Cell Res. 2025 Aug 27:120052. PubMed PMID: 40882873
2. Bandyopadhayaya S, Yadav P, Kumari M, Dey SK and **Mandal CC*.** Multifaceted In Silico Screening Strategies Identifies Potent Inhibitors Facilitating Inhibition of ZNF726 Activity in Breast Cancer, Chem Biol Drug Des. 2025 Jul;106(1):e70144. PubMed PMID: 40668946
3. Poswal J and **Mandal CC*,** Lipid metabolism dysregulation for bone metastasis and its prevention. Expert Review of Anticancer Therapy, 2025 Jun;25(6):657-673.PubMed PMID: 40219980
4. Soni S, Makwana SH, Bansal S, Kumari M and **Mandal CC***, Lipid metabolism associated PLPP4 gene drives oncogenic and adipogenic potential in breast cancer cells. Biochim Biophys Acta Mol Cell Biol Lipids. 2025 Jun;1870(5):159609 .PubMed PMID: 40187483
5. Makwana SH, Sharma T, Mahapatra MK, Kumari M, Jain A, Shrivastava SK and **Mandal CC*,** Targeting TRIM26: Unveiling an Oncogene and Identification of Plant Metabolites as a Potential Therapeutics for Breast Cancer. Journal of cellular biochemistry. 2024;125(10):e30644. PubMed PMID: 39286999
6. Nath V, Bhatnagar A, Kumar H, Chandravanshi AK, Sharma A, **Mandal CC**, et al. Phytochemical identification and assessment of Amberboa ramosa Mediated Inhibition of Microtubule and EGFR Associated Growth and Metastasis of Breast Cancer Cells: In vitro and in silico perspective. Journal of Computational Biophysics and Chemistry. 2024;23(7):851-67.
7. **Mandal CC***, Rhoades JA. Bone Cell Differentiation in Health and Disease, Volume II. Frontiers in endocrinology, 2024, 15:1499544. PubMed PMID: 39649226
8. Yadav P, Makwana S, Bansal S, Soni S, Mahapatra MK, Bandyopadhayaya S and **Mandal CC***, Metformin prevents osteoblast-like potential and calcification in lung cancer A549 cells. Journal of biochemical and molecular toxicology. 2023;37(11):e23454. PubMed PMID: 37409753
9. Yadav P, Bandyopadhayaya S, Soni S, Saini S, Sharma LK, Shrivastava SK and **Mandal CC***, Simvastatin prevents BMP-2 driven cell migration and invasion by suppressing oncogenic DNMT1 expression in breast cancer cells. Gene. 2023;882:147636. PubMed PMID: 37442305

10. Soni S, Yadav P, **Mandal CC*.** Metformin ameliorates BMP2 induced adipocyte-like property in breast cancer cells. Biochemical and biophysical research communications. 2023;672:201-8. PubMed PMID: 37406485.
11. Kuldeep S, Soni S, Srivastava A, Mishra A, Sharma LK, **Mandal CC***. Dysregulated cholesterol regulatory genes as a diagnostic biomarker for cancer. The journal of gene medicine. 2023;25(4):e3475. PMID: 36670344
12. Kapoor A, **Mandal CC***. A Perspective on Bone Morphogenetic Proteins: Dilemma behind Cancer- related Responses. Current drug targets. 2023;24(5):382-7. Epub 2023/02/02. doi: 10.2174/1389450124666230201144605. PubMed PMID: 36725830.
13. Bandyopadhayaya S, Yadav P, Sharma A, Dey SK, Nag A, Maheshwari R, Ford BM and **Mandal CC***, Oncogenic role of an uncharacterized cold-induced zinc finger protein 726 in breast cancer. Journal of cellular biochemistry. 2023;124(6):889-906. PubMed PMID: 37192271.
14. Tripathi V, Bundel R, **Mandal CC***. Effect of environmental factors on SARS-CoV-2 infectivity in northern hemisphere countries: a 2-year data analysis. Public health. 2022;208:105-10. PubMed PMID: 35753085
15. Tencerova M, **Mandal CC***. Editorial: Bone cell differentiation in health and disease. Frontiers in endocrinology. 2022;13:1115444. PubMed PMID: 36589851
16. Soni S, Torvund M, **Mandal CC***. Omega-3 Fatty Acid Treatment Combined with Chemotherapy to Prevent Toxicity, Drug Resistance, and Metastasis in Cancer. Current drug targets. 2022;23(6):574-96. PubMed PMID: 34488585.
17. Sharma T, Kapoor A, **Mandal CC***. Duality of bone morphogenetic proteins in cancer: A comprehensive analysis. Journal of cellular physiology. 2022;237(8):3127-63. PubMed PMID: 35644005.
18. **Mandal CC***, Rhoades Sterling JA. Editorial: Cancer and bone metastasis, volume II. Frontiers in endocrinology. 2022;13:971240. PubMed PMID: 35937819.
19. **Mandal CC***, Panwar MS, Yadav CP, Tripathi V, Bandyopadhayaya S. Combinatorial influence of environmental temperature, obesity and cholesterol on SARS-CoV-2 infectivity. Scientific reports. 2022;12(1):4796. Epub 2022/03/23. doi: 10.1038/s41598-022-08485-6. PubMed PMID: 35314722
20. **Mandal CC***. The Novel Use of Lipids as Diagnostic Tools and Therapeutics in Cancer: Recent Insights and Challenges. Current drug targets. 2022;23(6):542-3. Epub 2022/05/17. doi: 10.2174/1389450123062204251301O9. PubMed PMID: 35570340.
21. Chattopadhyay I, Gundamaraju R, Jha NK, Gupta PK, Dey A, **Mandal CC***, et al. Interplay between Dysbiosis of Gut Microbiome, Lipid Metabolism, and Tumorigenesis: Can Gut Dysbiosis Stand as a Prognostic Marker in Cancer? Disease markers. 2022;2022:2941248. Epub 2022/02/19. doi: 10.1155/2022/2941248. PubMed PMID: 35178126
22. Yadav P, Bandyopadhayaya S, Ford BM, **Mandal CC***. Interplay between DNA Methyltransferase 1 and microRNAs During Tumorigenesis. Current drug targets. 2021;22(10):1129-48. Epub 2021/01/27. doi: 10.2174/1389450122666210120141546. PubMed PMID: 33494674.
23. Soni S, Torvund M, **Mandal CC**. Molecular insights into the interplay between adiposity, breast cancer and bone metastasis. Clinical & experimental metastasis. 2021;38(2):119-38. Epub 2021/02/17. doi: 10.1007/s10585-021-10076-0. PubMed PMID: 33591548.

24. Shekhawat R, **Mandal CC***. Anti-Obesity Medications in Cancer Therapy: A Comprehensive Insight. Current cancer drug targets. 2021;21(6):476-94. Epub 2021/07/07. doi: 10.2174/1568009621666210322122829. PubMed PMID: 34225630.
25. Sharma T, Radosevich JA, **Mandal CC***. Dual Role of microRNAs in Autophagy of Colorectal Cancer. Endocrine, metabolic & immune disorders drug targets. 2021;21(1):56-66. Epub 2020/05/20. doi: 10.2174/1871530320666200519075908. PubMed PMID: 32427088.
26. Rana P, Shrama A, **Mandal CC***. Molecular insights into phytochemicals-driven break function in tumor microenvironment. Journal of food biochemistry. 2021;45(9):e13824. Epub 2021/07/06. doi: 10.1111/jfbc.13824. PubMed PMID: 34219240.
27. Kumar N, **Mandal CC***. Cholesterol-Lowering Drugs on Akt Signaling for Prevention of Tumorigenesis. Frontiers in genetics. 2021;12:724149. Epub 2021/10/05. doi: 10.3389/fgene.2021.724149. PubMed PMID: 34603386
28. Bandyopadhayaya S, Akimov MG, Verma R, Sharma A, Sharma D, Kundu GC, Gretskaya NM, Bezuglov VV, and **Mandal CC***. N-arachidonoyl dopamine inhibits epithelial-mesenchymal transition of breast cancer cells through ERK signaling and decreasing the cellular cholesterol. Journal of biochemical and molecular toxicology. 2021;35(4):e22693. Epub 2021/01/05. doi: 10.1002/jbt.22693. PubMed PMID: 33393692.
29. Sharma T, Sharma A, Maheshwari R, Pachori G, Kumari P, **Mandal CC***. Docosahexaenoic Acid (DHA) Inhibits Bone Morphogenetic Protein-2 (BMP-2) Elevated Osteoblast Potential of Metastatic Breast Cancer (MDA-MB-231) Cells in Mammary Microcalcification. Nutrition and cancer. 2020;72(5):873-83. Epub 2019/08/15. doi: 10.1080/01635581.2019.1651879. PubMed PMID: 31409173.
30. Sharma T, Bandyopadhayaya S, Dhakar R and **Mandal CC*** Bone morphogenetic protein 2 increasing epithelial to mesenchymal transition in breast cancer cells with pausing of its proliferation, Research Journal of Biotechnology, 2020, April, 15(4), 136- 144
31. Sharma T, **Mandal CC***. Omega-3 fatty acids in pathological calcification and bone health. Journal of food biochemistry. 2020;44(8):e13333. Epub 2020/06/18. doi: 10.1111/jfbc.13333. PubMed PMID: 32548903.
32. **Mandal CC***, Panwar MS. Can the summer temperatures reduce COVID-19 cases? Public health. 2020;185:72-9. Epub 2020/06/24. doi: 10.1016/j.puhe.2020.05.065. PubMed PMID: 32574871
33. **Mandal CC***. Osteolytic metastasis in breast cancer: effective prevention strategies. Expert review of anticancer therapy. 2020;20(9):797-811. Epub 2020/08/11. doi: 10.1080/14737140.2020.1807950. PubMed PMID: 32772585.
34. Jain S, Bhar K, Kumar S, Bandyopadhyaya S, Tapryal S, **Mandal CC**, et al. Homo- and heteroleptic trimethoxy terpyridine-Cu(ii) complexes: synthesis, characterization, DNA/BSA binding, DNA cleavage and cytotoxicity studies. Dalton transactions (Cambridge, England : 2003). 2020;49(13):4100-13. Epub 2020/03/07. doi: 10.1039/d0dt00209g. PubMed PMID: 32141470.
35. Jain S, Bhar K, Bandyopadhayaya S, Singh VK, **Mandal CC**, Tapryal S, et al. Development, evaluation and effect of anionic co-ligand on the biological activity of benzothiazole derived copper(II) complexes. Journal of inorganic biochemistry. 2020;210:111174. Epub 2020/07/12. doi: 10.1016/j.jinorgbio.2020.111174. PubMed PMID: 32652261.

36. Bandyopadhayaya S, Ford B, **Mandal CC*.** Cold-hearted: A case for cold stress in cancer risk. Journal of thermal biology. 2020;91:102608. Epub 2020/07/28. doi: 10.1016/j.jtherbio.2020.102608. PubMed PMID: 32716858.
37. Bandyopadhayaya S, Bundel R, Tyagi S, Pandey A, **Mandal CC***. Can the aging influence cold environment mediated cancer risk in the USA female population? Journal of thermal biology. 2020;92:102676. Epub 2020/09/06. doi: 10.1016/j.jtherbio.2020.102676. PubMed PMID: 32888573.
38. Akimov MG, Dudina PV, Gamisonia AM, Gretskaya NM, Zinchenko GN, **Mandal CC**, et al. The Influence of the Cholesterol Level in Cells on Endovanilloid Cytotoxicity. Doklady Biochemistry and biophysics. 2020;493(1):167-70. Epub 2020/09/08. doi: 10.1134/s1607672920040018. PubMed PMID: 32894457.
39. Sharma A, Bandyopadhayaya S, Chowdhury K, Sharma T, Maheshwari R, Das A, Kumar V, and **Mandal CC*** . Metformin exhibited anticancer activity by lowering cellular cholesterol content in breast cancer cells. PloS one. 2019;14(1):e0209435. Epub 2019/01/10. doi: 10.1371/journal.pone.0209435. PubMed PMID: 30625181
40. Neelam DK, Agrawal A, Tomer AK, Bandyopadhayaya S, Sharma A, Jagannadham MV, **Mandal CC** and Dadheech PKA Piscibacillus sp. Isolated from A Soda Lake Exhibits Anticancer Activity Against Breast Cancer MDA-MB-231 Cells. Microorganisms. 2019;7(2). Epub 2019/01/30. doi: 10.3390/microorganisms7020034. PubMed PMID: 30691094
41. **Mandal CC***. Editorial: Cancer and Bone Metastasis. Frontiers in endocrinology. 2019;10:852. Epub 2019/12/24. doi: 10.3389/fendo.2019.00852. PubMed PMID: 31866950
42. Chowdhury K, Kumar S, Sharma T, Sharma A, Bhagat M, Kamai A, Asthana S and **Mandal CC*** . Presence of a consensus DNA motif at nearby DNA sequence of the mutation susceptible CG nucleotides. Gene. 2018;639:85-95. Epub 2017/10/08. doi: 10.1016/j.gene.2017.10.001. PubMed PMID: 28986316.
43. Sharma A, Sharma T, Panwar MS, Sharma D, Bundel R, Hamilton RT, Radosevich JA, and **Mandal CC*** . Colder environments are associated with a greater cancer incidence in the female population of the United States. Tumour biology : the journal of the International Society for Oncodevelopmental Biology and Medicine. 2017;39(10):1010428317724784. Epub 2017/10/13. doi: 10.1177/1010428317724784. PubMed PMID: 29022494.
44. Chowdhury K, Sharma A, Sharma T, Kumar S, **Mandal CC***. Simvastatin and MBCD Inhibit Breast Cancer-Induced Osteoclast Activity by Targeting Osteoclastogenic Factors. Cancer investigation. 2017;35(6):403-13. Epub 2017/05/04. doi: 10.1080/07357907.2017.1309548. PubMed PMID: 28463564.
45. Chowdhury K, Sharma A, Kumar S, Gunjan GK, Nag A, **Mandal CC***. Colocynth Extracts Prevent Epithelial to Mesenchymal Transition and Stemness of Breast Cancer Cells. Frontiers in pharmacology. 2017;8:593. Epub 2017/09/21. doi: 10.3389/fphar.2017.00593. PubMed PMID: 28928657.
46. Sharma T, Radosevich JA, Pachori G, **Mandal CC***. A Molecular View of Pathological Microcalcification in Breast Cancer. Journal of mammary gland biology and neoplasia. 2016;21(1-2):25-40. Epub 2016/01/16. doi: 10.1007/s10911-015-9349-9. PubMed PMID: 26769216.
47. **Mandal CC***, Sharma A, Panwar MS, Radosevich JA. Is cholesterol a mediator of cold-induced cancer? Tumour biology : the journal of the International Society for

Oncodevelopmental Biology and Medicine. 2016;37(7):9635-48. Epub 2016/01/23. doi: 10.1007/s13277-016-4799-2. PubMed PMID: 26797787.

48. **Mandal CC**, Das F, Ganapathy S, Harris SE, Choudhury GG, Ghosh-Choudhury N. Bone Morphogenetic Protein-2 (BMP-2) Activates NFATc1 Transcription Factor via an Autoregulatory Loop Involving Smad/Akt/Ca2+ Signaling. The Journal of biological chemistry. 2016;291(3):1148-61. Epub 2015/10/17. doi: 10.1074/jbc.M115.668939. PubMed PMID: 26472929
49. Gayen S, **Mandal CC**, Samanta MK, Dey A, Sen SK. Expression of an engineered synthetic cry2Aa (D42/K63F/K64P) gene of Bacillus thuringiensis in marker free transgenic tobacco facilitated full-protection from cotton leaf worm (S. littoralis) at very low concentration. World journal of microbiology & biotechnology. 2016;32(4):62. Epub 2016/03/02. doi: 10.1007/s11274-016-2013-8. PubMed PMID: 26925624.
50. Pandey RK, Prajapati P, Sharma T, **Mandal CC**, Prajapati VK. Epidemiological investigation of a jaundice outbreak in Kishangarh, Rajasthan, India, 2014. Journal of Public Health. 2016;24:83-9.
51. Sharma T, Hamilton R, **Mandal CC***. miR-214: a potential biomarker and therapeutic for different cancers. Future oncology (London, England). 2015;11(2):349-63. Epub 2015/01/17. doi: 10.2217/fon.14.193. PubMed PMID: 25591843.
52. Sharma A, Verma HK, Joshi S, Panwar MS, **Mandal CC***. A link between cold environment and cancer. Tumour biology : the journal of the International Society for Oncodevelopmental Biology and Medicine. 2015;36(8):5953-64. Epub 2015/03/05. doi: 10.1007/s13277-015-3270-0. PubMed PMID: 25736923.
53. Mehta J, Asthana S, **Mandal CC**, Saxena S. A molecular analysis provides novel insights into androgen receptor signalling in breast cancer. PloS one. 2015;10(3):e0120622. Epub 2015/03/18. doi: 10.1371/journal.pone.0120622. PubMed PMID: 25781993
54. **Mandal CC***. High Cholesterol Deteriorates Bone Health: New Insights into Molecular Mechanisms. Frontiers in endocrinology. 2015;6:165. Epub 2015/11/12. doi: 10.3389/fendo.2015.00165. PubMed PMID: 26557105.
55. Kumar S, Nag A, **Mandal CC***. A Comprehensive Review on miR-200c, A Promising Cancer Biomarker with Therapeutic Potential. Current drug targets. 2015;16(12):1381-403. Epub 2015/03/27. doi: 10.2174/1389450116666150325231419. PubMed PMID: 25808651.
56. Gayen S, Samanta MK, Hossain MA, **Mandal CC**, Sen SK. A deletion mutant ndv200 of the Bacillus thuringiensis vip3BR insecticidal toxin gene is a prospective candidate for the next generation of genetically modified crop plants resistant to lepidopteran insect damage. Planta. 2015;242(1):269-81. Epub 2015/04/29. doi: 10.1007/s00425-015-2309-1. PubMed PMID: 25912191.
57. **Mandal CC***, Rhaman M. An Update of Bone Morphogenetic Proteins as Biomarker and Therapy for Cancer. Journal of Carcinogenesis and Mutagenesis. 2015:DOI: 10.4172/2157-518.1000e114.
58. **Mandal CC***, Rahman MM. Targeting Intracellular Cholesterol is a Novel Therapeutic Strategy for Cancer Treatment. Journal of cancer science & therapy. 2014;6(12):510-3. Epub 2015/03/31. doi: 10.4172/1948-5956.1000316. PubMed PMID: 25821564
59. Dandapat A, Bhattacharyya J, Gayen S, Chakraborty A, Banga A, Mukherjje R, **Mandal CC**, Hossain MA, Roy S Basu A and Sen SK, . Variant cry1Ab entomocidal Bacillus thuringiensis toxin gene facilitates the recovery of an increased number of lepidopteran

insect resistant independent rice transformants against yellow stem borer (Scirpophaga incertulus) inflicted damage. Journal of plant biochemistry and biotechnology. 2014;23:81-92.

60. Urbańska K, **Mandal CC**. Advanced views of glioblastoma multiforme U-87 cells for therapy of brain tumor. Int J Clin Biochem Res. 2014;1:59-66.
61. Ghosh-Choudhury N, **Mandal CC**, Das F, Ganapathy S, Ahuja S, Ghosh Choudhury G. c-Abl-dependent molecular circuitry involving Smad5 and phosphatidylinositol 3-kinase regulates bone morphogenetic protein-2-induced osteogenesis. The Journal of biological chemistry. 2013;288(34):24503-17. Epub 2013/07/04. doi: 10.1074/jbc.M113.455733. PubMed PMID: 23821550
62. **Mandal CC**, Ghosh-Choudhury T, Dey N, Choudhury GG, Ghosh-Choudhury N. miR-21 is targeted by omega-3 polyunsaturated fatty acid to regulate breast tumor CSF-1 expression. Carcinogenesis. 2012;33(10):1897-908. Epub 2012/06/09. doi: 10.1093/carcin/bgs198. PubMed PMID: 22678116
63. Dey N, Das F, Ghosh-Choudhury N, **Mandal CC**, Parekh DJ, Block K, et al. microRNA-21 governs TORC1 activation in renal cancer cell proliferation and invasion. PloS one. 2012;7(6):e37366. Epub 2012/06/12. doi: 10.1371/journal.pone.0037366. PubMed PMID: 22685542.
64. Das F, Ghosh-Choudhury N, Dey N, **Mandal CC**, Mahimainathan L, Kasinath BS, et al. Unrestrained mammalian target of rapamycin complexes 1 and 2 increase expression of phosphatase and tensin homolog deleted on chromosome 10 to regulate phosphorylation of Akt kinase. The Journal of biological chemistry. 2012;287(6):3808-22. Epub 2011/12/21. doi: 10.1074/jbc.M111.246397. PubMed PMID: 22184110.
65. **Mandal CC**, Ghosh-Choudhury N, Yoneda T, Choudhury GG, Ghosh-Choudhury N. Simvastatin prevents skeletal metastasis of breast cancer by an antagonistic interplay between p53 and CD44. The Journal of biological chemistry. 2011;286(13):11314-27. Epub 2011/01/05. doi: 10.1074/jbc.M110.193714. PubMed PMID: 21199873.
66. **Mandal CC**, Ganapathy S, Gorin Y, Mahadev K, Block K, Abboud HE, et al. Reactive oxygen species derived from Nox4 mediate BMP2 gene transcription and osteoblast differentiation. The Biochemical journal. 2011;433(2):393-402. Epub 2010/10/30. doi: 10.1042/bj20100357. PubMed PMID: 21029048.
67. Dey N, Das F, Mariappan MM, **Mandal CC**, Ghosh-Choudhury N, Kasinath BS, et al. MicroRNA-21 orchestrates high glucose-induced signals to TOR complex 1, resulting in renal cell pathology in diabetes. The Journal of biological chemistry. 2011;286(29):25586-603. Epub 2011/05/27. doi: 10.1074/jbc.M110.208066. PubMed PMID: 21613227.
68. **Mandal CC**, Ghosh-Choudhury T, Yoneda T, Choudhury GG, Ghosh-Choudhury N. Fish oil prevents breast cancer cell metastasis to bone. Biochemical and biophysical research communications. 2010;402(4):602-7. Epub 2010/10/26. doi: 10.1016/j.bbrc.2010.10.063. PubMed PMID: 20971068.
69. **Mandal CC**, Drissi H, Choudhury GG, Ghosh-Choudhury N. Integration of phosphatidylinositol 3-kinase, Akt kinase, and Smad signaling pathway in BMP-2-induced osterix expression. Calcified tissue international. 2010;87(6):533-40. Epub 2010/09/28. doi: 10.1007/s00223-010-9419-3. PubMed PMID: 20872216.
70. Ghosh-Choudhury N, **Mandal CC**, Ghosh-Choudhury N, Ghosh Choudhury G. Simvastatin induces derepression of PTEN expression via NFkappaB to inhibit breast

cancer cell growth. Cellular signalling. 2010;22(5):749-58. Epub 2010/01/12. doi: 10.1016/j.cellsig.2009.12.010. PubMed PMID: 20060890.

71. **Mandal CC**, Ghosh Choudhury G, Ghosh-Choudhury N. Phosphatidylinositol 3 kinase/Akt signal relay cooperates with smad in bone morphogenetic protein-2-induced colony stimulating factor-1 (CSF-1) expression and osteoclast differentiation. Endocrinology. 2009;150(11):4989-98. Epub 2009/10/13. doi: 10.1210/en.2009-0026. PubMed PMID: 19819979.
72. Mahimainathan L, Ghosh-Choudhury N, Venkatesan B, Das F, **Mandal CC**, Dey N, et al. TSC2 deficiency increases PTEN via HIF1alpha. The Journal of biological chemistry. 2009;284(41):27790-8. Epub 2009/08/04. doi: 10.1074/jbc.M109.028860. PubMed PMID: 19648120.
73. Ghosh-Choudhury T, **Mandal CC**, Woodruff K, St Clair P, Fernandes G, Choudhury GG, et al. Fish oil targets PTEN to regulate NFkappaB for downregulation of anti-apoptotic genes in breast tumor growth. Breast cancer research and treatment. 2009;118(1):213-28. Epub 2008/10/28. doi: 10.1007/s10549-008-0227-7. PubMed PMID: 18953692.
74. **Mandal CC**, Gayen S, Basu A, Ghosh KS, Dasgupta S, Maiti MK, et al. Prediction-based protein engineering of domain I of Cry2A entomocidal toxin of Bacillus thuringiensis for the enhancement of toxicity against lepidopteran insects. Protein engineering, design & selection : PEDS. 2007;20(12):599-606. Epub 2007/12/01. doi: 10.1093/protein/gzm058. PubMed PMID: 18048477.
75. Ghosh-Choudhury N, **Mandal CC**, Choudhury GG. Statin-induced Ras activation integrates the phosphatidylinositol 3-kinase signal to Akt and MAPK for bone morphogenetic protein-2 expression in osteoblast differentiation. The Journal of biological chemistry. 2007;282(7):4983-93. Epub 2006/12/21. doi: 10.1074/jbc.M606706200. PubMed PMID: 17179158.
76. Saha T, Ghose PB, **Mandal CC**, Bandyopadhaya TS. Wastewater quality status of the Tally nulla in Calcutta. Indian journal of environmental health. 2003;45(3):221-6. Epub 2004/08/19. PubMed PMID: 15315145.
77. Saha T, Ghose P, **Mandal CC**, Bandyopadhaya T. Wastewater quality status of the Tally nulla in Calcutta. Indian journal of environmental health. 2003;45(3):221-6.
78. Saha T, Ghosh P, **Mandal CC**, Bandyopadhyay T. Quality assessment of Bagjola canal waste water, Calcutta. Journal of the Inland Fisheries Society of India (India). 2000;32(1).
79. Saha T, Ghose P, **Mandal CC**, Bandyopadhaya T. Water quality monitoring of Beliaghata-Kestopur Canal of Calcutta. Journal of Institution of Public Health Engineers, India. 2000;4:53-8.

Book Chapters: Total No: 21

1. Mudgal D and **Mandal CC**, Clinical trials of nelfinavir protease inhibitor in cancer treatment II: Therapeutic aspects of some synthetic compounds in proteases-induced cancer, Academic Press, 2025. p.455-469
2. Kumari M and **Mandal CC**, Targeting matrix metalloproteinases-2 and -9 for breast cancer treatment, Volume II: Therapeutic aspects of some synthetic compounds in proteases-induced cancer, Academic Press, 2025. p.99-106

3. Kumari D and **Mandal CC**, Role of synthetic protease inhibitors in lung cancer treatment. Volume II: Therapeutic aspects of some synthetic compounds in proteases-induced cancer, Academic Press, 2025. p.5-13.
4. Kapoor A, **Mandal CC**. Influence of Serine Proteases on Bone Morphogenetic Proteins. Handbook of Proteases in Cancer: 10.1201/9781003394693-2; 2024.
5. Nunia V, Qureshi S, Mahapatra MK, **Mandal CC**. Therapeutic approaches of phospholipase C inhibitors in breast cancer. Phospholipases in Physiology and Pathology: Academic Press; 2023. p. 121-39.
6. Yadav P, **Mandal CC**. Bioimaging: Usefulness in Modern Day Research. Practical Approach to Mammalian Cell and Organ Culture: Springer Nature Singapore Singapore; 2023. p. 1205-30.
7. Makwana S, **Mandal CC**. Animal Models for Angiogenesis on Cancer Research. Handbook of Animal Models and its Uses in Cancer Research: Springer Nature Singapore Singapore; 2022. p. 1-23.
8. Makwana S and **Mandal CC**, Interplay between miRNAs and Reactive Oxygen Species in Cancer Stem Cells: New Perspective in Cancer Metastasis, Handbook of Oxidative Stress in Cancer: Therapeutic Aspects, ISBN: 978-981-16-1247-3 Springer, Dec, 2021
9. Mahapatra MK, **Mandal CC**. Natural Extracts Target NF-κB and Reactive Oxygen Species: Molecular Insights into Therapy Resistance and Toxicity. Handbook of Oxidative Stress in Cancer: Therapeutic Aspects: Springer Singapore Singapore; 2022. p. 1-28.
10. Mahapatra MK, **Mandal CC**. Animal Models for Bone Metastasis Study. Handbook of Animal Models and its Uses in Cancer Research: https://link.springer.com/referencework/10.1007/978-981-19-1282-5; 2022.
11. Soni S, Bandyopadhayaya S and **Mandal CC**, Animal Models Systems of Cancer for Preclinical Trials, Pharmacotherapeutic Botanicals for Cancer Chemoprevention 978-981-15-5998-3 (In press, 2020)
12. Shrama A, Priyanshi and **Mandal CC**, Modulation of Cancer Cell Metabolism and Microenvironment by Phytochemicals, Pharmacotherapeutic Botanicals for Cancer Chemoprevention, 978-981-15-5998-3, Springer (In press, 2020)
13. Vijayvergia U, Bandyopadhayaya S and **Mandal CC**, Biphasic Effects of Phytochemicals and their Relevance to Cancer Therapeutics, Pharmacotherapeutic Botanicals for Cancer Chemoprevention, 978-981-15-5998-3, Springer (In press, 2020)
14. Sharma T and **Mandal CC**, Technological Advancement in Cancer Stem Cell Research, Cancer Stem Cells: New Horizons in Cancer Therapies, 978-981-15-5119-2, Springer (In press, 2020)
15. Bandyopadhayaya S and **Mandal CC**, A Differential Role of miRNAs in Regulation of Breast Cancer Stem Cells, Cancer Stem Cells: New Horizons in Cancer Therapies, 978-981-15-5119-2, Springer (In press, 2020)
16. Bandyopadhayaya S and **Mandal CC**, Blood-Based Biomarkers for the Diagnosis and Prognosis of Cancer, Precision Medicine in Oncology (Editor: James A. Radosevich), 9781119432449, Wiley Blackwell (In press, 2020)
17. **Mandal CC**, Mehta J and Prajapati V. (2018) Programmed death 1 (PD1) mediated T cell apoptosis and cancer immune therapy, Apoptosis and Beyond: The Many Ways Cells Die (Editor: James A. Radosevich), WILLEY blackwell, ISBN:1119432421

18. Mehta J and **Mandal CC**. (2018) Cyclophilin D-dependent Necrosis, Apoptosis and Beyond: The Many Ways Cells Die (Editor: James A. Radosevich), WILLEY blackwell, ISBN:1119432421
19. Bhattacharyya J, Mukherjee R, Banga A, Dandapat A, **Mandal CC**, Hossain MA, Banerjee N, Ghosh AK, Choudhury AH, Mandol A, Maiti MK, Basu A, Ghosh D, Das S, Basu D, Mishra S, Nayak P and Sen SK (2007). A transgenic approach for developing insect resistant rice plant types, 245-264, Science, technology and trade for peace and prosperity (P.K. Aggarwal, J.K. Ladha, R.K. Singh, C. Devakumar, B. Hardy), MacMillan India Ltd.
20. Bhattacharyya J, Banga A, Mukherjee R, Vedula J, Hossain MA, Sen S, **Mandal CC**, Choudhury AH, Dandapat A, Biswas P, Basu A, Maiti MK, Ghosh D, Basu D, Das S, Nayak P and Sen SK (2004). Continuing the golden harvest: Development of insect resistant transgenic rice, 239-254, Biotechnology for a better future (L. D'Souza), SAC publication, Mangalore, India
21. Saha T, Ghose PB, **Mandal CC** and Bandyopadhaya TS (2003). Ecology of some canals of kolkata in relation to bacterial population, 185-191, chapter 18, Aquatic Ecosystem (Kul Bhushan Nangia). A.P.H. Publishing Corporation, New Delhi, ISBN: 81-7648-454-7

Gene Bank Submission: Total No: 3

1. **Mandal CC**, Basu A, Maiti MK and Sen SK (2005). Isolation, cloning and characterization of cry2Aa gene, Accession No DQ064596.
2. Dandapat A, **Mandal CC**, Basu A, Maiti MK and Sen SK (2005). *Isolation, cloning and characterization of variant cry1Ab gene*, Accession No DQ064597.
3. **Mandal CC**, Basu A, Maiti MK and Sen SK (2008).Synthetic construct of insecticidal crystal protein (cry2Aa) gene, complete cds, Accession No EF442244.

Presentations in Conferences/ Symposiums: Total No: 48

1. **Mandal CC**, Targeting Osteoblast-like Potential Governed within Cancer Cells for Curbing Breast Cancer, International Symposium on "Integrative Oncology and Systems Medicine: Emerging Trends and Therapeutic Potential, Rishikesh, India 21-22 Feb, **2025**, [**Invited Speaker**]
2. **Mandal CC**, Curbing Cholesterol Metabolism to Block DNMT1 Associated Epigenetic and Genetic Changes in Breast Cancer, International Symposium on Mitochondria, Cell death and Human Diseases: Frontiers in Cancer Research, JNU, New Delhi, India, Feb 17-18th, **2025**. [**Invited Speaker**]
3. **Mandal CC**, BMP-2 enhanced adipogenic potential of breast cancer cells by upregulating PLPP4, XIII annual international conference on Indian academy of biomedical sciences, AIIMS-Bhopal, India,11-13th Feb, **2025** [**Invited Speaker**]
4. **Mandal CC,** Breast cancer cells acquire adipogenic potential to drive oncogenic activity**,** 8th Annual conference 2024, MGM Medical School of Biomedical Sciences, Navi Mumbai, 6-7th Dec, **2024**. [**Invited Speaker**]
5. **Mandal CC,** Intriguing link between cold temperature, cholesterol and cancer: Zinc Finger Protein 726 (ZNF726), 6th international conference on nutraceuticals and chronic diseases, Punjab University, India, 22-24th Feb, **2024**. [**Invited Speaker**]

6. **Mandal CC**, Interplay between oncogene ZNF726 and DNMT1 for breast tumorigenesis in association with dysregulated cellular cholesterol level, North zone ACBIOCON 2024, AIIMS-Jodhpur, Feb 1-2, **2024**. [**Invited Speaker**]
7. **Mandal CC**, An unexplored zinc finger protein bridges the relationship between cold temperature and cholesterol in breast cancer" on 30th January **2023**, Snippets of Life Sciences Research in India: Honoring Prof. Debi P. Sarkar, Department of Biochemistry, University of Delhi-South Campus [**Invited Speaker**]
8. **Mandal CC**, Tumorigenic potentiality of an unfamiliar cold-induced zinc finger protein in cancer and its prevention strategy, 16th international cancer symposium of translational chemoprevention and brain storming, Nov 18-19, **2022**, JNU, New Delhi, India **[Invited Speaker]**
9. **Mandal CC**, A new drug targets dysregulated cholesterol metabolism for prevention of cancer growth and metastasis, 5th International Conference on Nutraceuticals and Chronic Diseases (INCD2022 from October 7-9, **2022** University of Delhi, India.**[Invited Speaker]**
10. **Mandal CC**, Omega-3 Fatty Acid Inhibited Microcalcification by Targeting Osteoblast Potential of Breast Cancer Cells 13th International Symposium on "Cancer Prevention and Treatment", **2020**, JNU, New Delhi (**Invited Speaker**)
11. **Mandal CC**, Targeting osteoblast-like potential in cancer cells, 8th International Translational Cancer Research Conference, **2020**, BHU, Varanasi, India (**Invited Speaker**)
12. **Mandal CC**, Anti-diabetic metformin suppressed BMP-2 induced osteoblast-like potential in lung cancer cells, National Symposium on Basic & Translational Research in Cancer Biology **2019**, Institute of Advanced Research, Gujarat (**Invited speaker**)
13. **Mandal CC**, Cholesterol Lowering Simvastatin Targets NFATc1-DKK1-CSF1 Axis toInhibit Breast Cancer Induced Osteoclast Activity in the international symposium on Tumor Microenvironment and Cancer Prevention & Therapeutics **2019**, JNU, New Delhi, India (**Invited speaker**)
14. **Mandal CC**, Targeting cellular cholesterol prevents cancer, International Conference on International Conference on LSRIEAS-**2018**, BITS-Pilani, India (**Invited speaker**)
15. **Mandal CC,** An Intriguing link between cholesterol and tumorigenesis, Institute of Bioorganic Chemistry, Russia, Moscow (**Invited Lecture**)--**2018**
16. **Mandal CC**, Omega-3 Fatty Acid Disrupts BMP Signaling to Prevent Micro calcification in Breast Cancer, 7th International Conference on Translational Cancer Research, ICTCR **2018**, Chennai, Inida (**Invited speaker**)
17. **Mandal CC**, Cold temperature: a not-estimated cancer risk factor, NSCPTS **2017** (**Plenary speaker**)
18. **Mandal CC** Influence of cold temperature and cellular cholesterol on breast cancer growth and metastasis, RGCON **2017**, New Delhi, India (**Invited Faculty**)
19. Mandal CC Cholesterol Depleting Methyl-β-cyclodexytrin Prevents Epithelial to Mesenchymal Transition and Breast Cancer Driven Osteoclast Activity (**2017**), 3rd international conference on Perspective of Cell Signaling and Molecular Medicine, Bose Institute, Kolkata, India. (**Invited Speaker**)
20. **Mandal CC*** (2016) Influence of Cellular Cholesterol on Breast Cancer Induced Bone Metastasis**,** ICSCC-2016, Ravindra Bhavan, Margao, Goa, India. (**Invited Speaker**)
21. **Mandal CC***, Sharma A, Panwar M (**2016**), Is there a tie between risk factors cold environment and cholesterol in cancer? International Conference Indian Association for Cancer research (IACR), New Delhi, India (**Invited Speaker**)
22. **Mandal CC***, Sharma A, Ghosh-Choudhury (**2016**), An intriguing link between cholesterol and cancer, International Conference BCGGR, BITS-PILANI, India (**Keynote Speaker**)
23. **Mandal CC***, Sharma T, Sharma A, Ghosh-Choudhury N (**2016**), Fish Oil and Cholesterollowering Drug Prevent Breast Cancer Growth and Metastasis, International

Symposium on Role of herbals in Cancer prevention and treatment, Jawaharlal Nehru University, New Delhi, India (**Oral Presentation**)

24. **Mandal CC*** (**2015**), Cold Environmental Temperature May Enhance Cancer Risk by Augmenting Cholesterol, Global Cancer Summit 2015, Bangalore, India. (**Invited speaker**).
25. **Mandal CC*** (**2015**) Combinatorial Treatment with Cholesterol-lowering Drug and Omega3 fatty Acid Prevents Breast Cancer Growth, Current Challenges in Drug Discovery Research, MNIT, Jaipur, India. (**Invited speaker**).
26. **Mandal CC*** (**2014**), A Cholesterol Lowering Drug Prevents Osteolytic Bone Metastasis by Targeting Osteoclastogenic Factors in Bone Microenvironment, 9th International Conference on Anticancer Research, Sithonia, Greece [**Invited Speaker**].
27. **Mandal CC*** (**2014),** Omega-3 fatty acids prevent breast cancer bone metastasis and side effects of chemotherapies, Global Cancer Conference, Hyderabad, India [**Plenary Speaker]**
28. **Mandal CC***, Ghosh-Choudhury G and Ghosh-Choudhury N (**2013**) Simvastatin inhibits Osteoclastogenic Factors to block Osteolytic Bone Metastasis of Breast Cancer, 4th International Conference on Stem Cells and Cancer, Bombay, India [**Oral presentation**]
29. Sharma T, Parihar N , Nath S, Singh A, Kaur S, Singh S, and **Mandal CC*** (**2013**) A Nontoxic Approach to Prevent Secondary Effects of Chemotherapies, Bioquest 2013, Elsevier, Kerala, India. [**Oral Presentation**]
30. **Mandal CC***, Ghosh-Choudhury G and Ghosh-Choudhury N (**2012**). Cholesterol-lowering Drug Targets Osteoclastogenic Factors to Prevent Osteolytic Bone Metastasis of Breast Cancer,3rd International Cancer Research Symposium, Journal of Cell Communication and Signaling, Kolkata, India. [**Invited Speaker**]
31. **Mandal CC**, Tamegnon A, Ghosh-Choudhury T, Ghosh-Choudhury G and GhoshChoudhury N (**2012**). Omega 3 Fatty Acids in Fish Oil Orchestrate a Reciprocal Axis between p53-miR200c and Zeb1 to Prevent EMT in Breast Cancer Cells, 34th Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Minneapolis, Minnosota, USA.
32. **Mandal CC**, Ghosh-Choudhury T, Ghosh-Choudhury G and Ghosh-Choudhury N (**2011**). Fish oil targets miR-21 to increase PTEN expression for inhibition of bone metastatic CSF-1 in breast cancer cells**,** Program # P2-01-11, 34th Annual San Antonio Breast Cancer Symposium, San Antonio, Texas, USA. **[Broadcast in KENS5 San Antonio, KVUE Austin**, and **CBS National TV Channel]**
33. **Mandal CC**, Ghosh-Choudhury G, Ghosh-Choudhury T and Ghosh-Choudhury N (**2011**). Omega3 fatty acids orchestrate an antagonistic interplay of microRNA expression to prevent epithelial to mesenchymal transdifferentiation of breast cancer cells, Abs# 31, 4th Annual Symposium of Cancer Therapy & Research Center (CTRC), San Antonio, Texas, USA.
34. **Mandal CC**, Ghosh-Choudhury T, Ghosh-Choudhury G and Ghosh-Choudhury N (**2011**). A Non-invasive Way to Target microRNA-21 and to Prevent Osteometastatic CSF-1 Expression by the Human Breast Cancer Cells via PTEN, Abs# 113*,* 33rd Annual Meeting of the American Society for Bone and Mineral Research, JBMR, San Diego , USA.
35. **Mandal CC,** Ghosh-Choudhury N, Yoneda T, Ghosh-Choudhury G and Ghosh-Choudhury N (**2010**). Simvastatin prevents breast cancer skeletal metastasis by increasing p53 levels to increase PTEN and inhibit CD44 expression*,* Program # P2-07-01*,* 33rd Annual San Antonio Breast Cancer Symposium, San Antonio, Texas, USA. [**University of Texas Health Science Center News** (24th Nov, 2010) and **San Antonio Express News** (2nd Dec, **2010**)]
36. **Mandal CC,** Ghosh-Choudhury N, Yoneda T Ghosh-Choudhury G and Ghosh-Choudhury N (**2010**). Unveiling dual functions of p53 in preventing breast cancer bone metastasis by targeting CD44 and PTEN, *Abs# 1230,* 32nd Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Toronto, Canada. **[Young Investigator Travel Grant Recipient** and **Oral Presentation]**
37. **Mandal CC**, Ghosh-Choudhury G, Yoneda T and Ghosh-Choudhury N (**2009**). Omega-3 fatty acids (OFAs) intercept miR-21 and miR-214 targeting PTEN to prevent breast cancer bone metastasis, Abs# SU0113, 31st Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Denver, USA. **[Medical Tribune, Congress News Wave, Japan]**

38. **Mandal CC**, Ganapathy S, Ghosh-Choudhury G and Ghosh-Choudhury N (**2009**). *BMP-2-stimulated NOX4-PI3 kinase-Akt signaling axis induces osteoblast (OB) differentiation,* Abs# MO0184, 31st Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Denver, USA.
39. **Mandal CC**, Ghosh-Choudhury G and Ghosh-Choudhury N (**2008**). BMP-2 stimulates a feedback activation loop for expression of NFATc1 in osteoblast, Abs# SA02, 30th Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Montreal, Canada. **[Plenary Poster]**
40. **Mandal CC**, Ghosh-Choudhury G, Ganapathy S, Harris SE and Ghosh- Choudhury N (**2008**). A BMP-2 stimulated signaling niche in osteoblast comprising Smad and PI3K kinase /Akt regulates NFATc1 expression and its nuclear translocation, Abs# 1081, 30th Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Montreal, Canada.
[Young Investigator Award and **Oral Presentation]**
41. **Mandal CC** and Ghosh-Choudhury N (**2008**). Simvastatin induces Wnt signaling and reduces CSF-1 secretion and RANKL/OPG ratio to block osteoclast differentiation, Abs# SU096, 30th Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Montreal, Canada.
42. **Mandal CC**, Ghosh-Choudhury G, Drissi H and Ghosh-Choudhury N (**2007**). BMP2Inducible Osterix regulates Bone remodeling by Increasing Osteoblastic CSF-1 and RANKL/ OPG ratio To Induce Osteoclast maturation, Abs# M100, 29th Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Honolulu, Hawaii, USA.
43. **Mandal CC**, Ghosh-Choudhury G, Drissi H and Ghosh-Choudhury N (**2007**). Osteoblastic Master regulator Osterix Mediates the feedback regulation of BMP-2 Auto- Expression via PI3 kinase/ AKt signaling, Abs# T029, 29th Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Honolulu, Hawaii, USA. **[Travel Award]**
44. **Mandal CC**, Singha PK, Pandeswara SL, Ghosh-Choudhury G and Ghosh Choudhury N (**2006**). Phosphatidlyinositol (PI) 3 kinase/ Akt Signaling Represents a Potential Mechanism for BMP-2-induced Expression of Colony Stimulating Factor-1(CSF-1) which mediates Osteoclast Differentiation. Abs# F183, 28th Annual Meeting of the American Society for Bone and Mineral Research, JBMR, Philadelphia, USA**. [Plenary Poster]**

National: Total No: 04

45. **Mandal CC**, Ghosh-Choudhury G, Ghosh-Choudhury T and Ghosh-Choudhury N, Omega3 fatty acids orchestrate an antagonistic interplay of microRNA expression to prevent epithelial to mesenchymal transdifferentiation of breast cancer cells (2nd November, 2011), Abs# 31, 4th Annual Symposium of Cancer Therapy & Research Center (CTRC), San Antonio, Texas, USA.
46. **Mandal CC**, Borgfeld N and Ghosh-Choudhury N, Omega-3 Fatty Acids Targets miR-21 to Differentially Regulate Expressions of the Tumor Suppressor Protein PTEN and the Prometastatic CSF-1 in Human Breast Cancer Cells (8th April, 2011), 3rd Annual Terry Mikiten, Ph.D. Graduate Student Research Forum, UTHSCSA, San Antonio, Texas, USA.
47. **Mandal CC**, Ghosh-Choudhury T, Ghosh-Choudhury G and Ghosh-Choudhury N, Fish Oil Intercepts CSF-1 Expression by Breast Cancer Cells to block Osteolytic Metastasis (3rd November, 2010),. Abs# 3, 3rd Annual Symposium of Cancer Therapy & Research Center (CTRC), San Antonio, Texas, USA, 2010. **[2nd Place Winner**]
48. **Mandal CC**, Choudhury GG, Yoneda T and Ghosh-Choudhury N, Omega-3 Fatty Acids Block miR-21 and miR-214 to Target PTEN Expression and Prevent Breast Cancer Bone Metastasis (5th May, 2010),. 2nd Annual Terry Mikiten, Ph.D. Graduate Student Research Forum, UTHSCSA, San Antonio, Texas, USA

Research Grants Total No: 8

1. Deciphering the influence of adipocyte-like cell subpopulation transdifferentiated from breast cancer cells in tumorigenic activity and its therapeutic potential (ICMR) [Ref. 2021/9936] [PI]
2. Conjugated approach for more effective Cu and Ru Metal Based Molecular Agents with Enhance Anti-Cancer Potential and Reduced Side-Effects (DST-SERB) [Ref. SERB/F/7709/2022-2023] [Co-PI]
3. Exploring the impact of an osteoblast-like cell subpopulation differentiated from breast cancer cells on tumorigenic activity and its possible therapeutic potential (DST-SERB) [Ref. CRG/2021/002963][PI]
4. Exploring the role of secretary arm of autophasy in glioblastoma therapy resistance in invitro and patient data based study (ICMR) [Ref. 52/27/2020-BIO/BMS] [Co-PI]
5. Interplay of metabolic and signal pathways of N-acyl dopamines and cholesterol in cancer cells (DST-RFBR) [Ref. INT/RUS/RFBR/P-256](Indo-Russia) [PI]
6. Cholesterol-lowering drug targets osteoclastogenic factors to prevent osteolytic bone metastasis of breast cancer (DBT) [Ref. 6242-P9/RGCB/PMD/DBT/CCML/2015] [PI]
7. Rationally designed Indolizine derivative(s) as multitarget anticancer agent for inhibition of cancer cell growth and metastasis (DST-SERB) [Ref. EMR/2014/000928] [Co-PI]
8. Influence of diabetes on bone metastasis of breast cancers (UGC-BSR Start-up grant) [PI]

Important Links:

Web link:	https://bit.ly/curajchandicmandal
Publications:	https://bit.ly/GscholarChandicmandal
PubMed:	https://bit.ly/PubMed-CCM
Edited topic:	https://bit.ly/cancer-bonemetastasis-chandi
Edited topic:	https://bit.ly/lipid-cancer-chandi
Edited topic:	https://bit.ly/osteoblast-health
Recent news:	https://bit.ly/newschandiCOVID-19