

Bio-Data - Co Principal Investigator

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Educational Qualification:

	Degree	Year	Subject	University/Institution
1.	B.Sc.	2011	Microbiology (Hon), Botany, Chemistry, ENVS, Eng, Beng.	Asutosh College, University of Calcutta
2.	M.Sc.	2013	Microbiology	Vijaygarh Jyotish Ray College, University of Calcutta
3.	Ph.D.	2021	Life Science	School of Bioscience and Engineering, Jadavpur University, Kolkata

Work experience (in chronological order):

S.No.	Positions held	Name of the Institute	From	To	Pay Scale
1.	Project JRF (DBT sponsored twinning program entitled “North East Silk based bioengineered vascular conduits)	West Bengal University of Animal and Fishery Sciences, Kolkata	2017	2019	12,000/- +30% HRA
2.	Project SRF (DBT sponsored project entitled “Development of animal cartilage for surgical implantation in Microtia and	West Bengal University of Animal and Fishery Sciences, Kolkata	2015	2016	14,000/- + 30% HRA

	Rhinoplasty in human patient)				
3.	Project JRF (DBT sponsored project entitled “Development of animal cartilage for surgical implantation in Microtia and Rhinoplasty in human patient)	West Bengal University of Animal and Fishery Sciences, Kolkata	2013	2015	12,000/- +30% HRA
4.	Assistant Professor , Department of Microbiology, School of Life Science and Biotechnology,	Adamas University, Barasat – 700126 West Bengal	2021	Present	As per UGC scale

Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant:

S.No	Name of Award	Awarding Agency	Year
1	CSIR direct SRF	CSIR (Fellowship sanctioned for two years from April 2019 – March 2021)	2019
2	International Travel grant for participating in an international conference (TERMIS 2019) at Rhodes Island, Greece.	CSIR (full air fare for the conference)	2019
3	International travel grant	RUSA 2.0, Jadavpur University (Registration fee + DA)	2019
4	National Travel grant for participating conference (BIOTERM 2019) at IIT Kanpur, India.	RUSA 2.0, Jadavpur University (TA/DA and registration fee)	2019
5	Best poster award	BITERM, Society of Biomaterials and Artificial Organs (INDIA) at IIT Delhi	2016
6	Best poster award	3rd International Conference and Exhibition on Biowaivers, Biologic and Biosimilars in Hyderabad	2014

Total Peer Reviewed Scholarly Publications: 18, Patent applications – 2, Book chapters – 7, Conference publications – 3, National journal - 1, Total Citations: 603 h-index: 13 (Google Scholar December 2024)

- Ghosal, D., Majumder, N., Das, P., Chaudhary, S., Dey, S., Banerjee, P., Tiwari, P., Das, P., Basak, P., Nandi, S.K. and Ghosh, S., Enhancing Wound Healing With Sprayable Hydrogel Releasing Multi Metallic Ions: Inspired by the Body's Endogenous Healing Mechanism. *Advanced Healthcare Materials*, p.2402024.

2. Mishra, P.P., Das, P., Paul, S., Das, P., Manna, S., Basak, P., Das, N. and Behera, A.K., 2024. Graphene oxide dots-loaded chitin flask: A sustainable adsorbent for separating multiple dyes from water. *Environmental Quality Management*.
3. Das, P., Jana, S. and Kumar Nandi, S., 2022. Biomaterial-Based Therapeutic Approaches to Osteoarthritis and Cartilage Repair Through Macrophage Polarization. *The Chemical Record*, 22(9), p.e202200077.
4. Jana, S., Das, P., Mukherjee, J., Banerjee, D., Ghosh, P.R., Das, P.K., Bhattacharya, R.N. and Nandi, S.K., 2022. Waste-derived biomaterials as building blocks in the biomedical field. *Journal of Materials Chemistry B*, 10(4), pp.489-505.
5. Das, P., Mishra, R., Devi, B.K., Rajesh, K., Basak, P., Roy, M., Roy, P., Lahiri, D. and Nandi, S.K., 2021. Decellularized xenogenic cartilage extracellular matrix (ECM) scaffolds for the reconstruction of osteochondral defects in rabbits. *Journal of Materials Chemistry B*.
6. Anand, A., Das, P., Nandi, S.K. and Kundu, B., 2020. Development of antibiotic loaded mesoporous bioactive glass and its drug release kinetics. *Ceramics International*, 46(4), pp.5477-5483.
7. Chouhan, D., Das, P., Thatikonda, N., Nandi, S.K., Hedhammar, M. and Mandal, B.B., 2019. Silkworm silk matrices coated with functionalized spider silk accelerate healing of diabetic wounds. *ACS Biomaterials Science & Engineering*, 5(7), pp.3537-3548.
8. Sinha, S., Priyadarshani, J., Devi, K.B., Kishore, A.V., Das, P., Chanda, A., Das, S., Roy, M. and Nandi, S.K., 2020. In vivo performance analysis of silanized and coated nitinol wires in biological environment. *Journal of Materials Research*, 35(10), pp.1262-1270.
9. Das, P., Rajesh, K., Lalzawmliana, V., Bavya Devi, K., Basak, P., Lahiri, D., Kundu, B., Roy, M. and Nandi, S.K., 2019. Development and Characterization of Acellular Caprine Chonchal Cartilage Matrix for Tissue Engineering Applications. *Cartilage*, p.1947603519855769.
10. Das, P., Singh, Y.P., Joardar, S.N., Biswas, B.K., Bhattacharya, R., Nandi, S.K. and Mandal, B.B., 2019. Decellularized Caprine Chonchal Cartilage toward Repair and Regeneration of Damaged Cartilage. *ACS Applied Bio Materials*, 2(5), pp.2037-2049.
11. Samanta, S.K., Devi, K.B., Das, P., Mukherjee, P., Chanda, A., Roy, M. and Nandi, S.K., 2019. Metallic ion doped tri-calcium phosphate ceramics: Effect of dynamic loading on in vivo bone regeneration. *Journal of the mechanical behavior of biomedical materials*, 96, pp.227-235.
12. Bhattacharya, R., Das, P., Joardar, S.N., Biswas, B.K., Batabyal, S., Das, P.K. and Nandi, S.K., 2019. Novel Decellularized animal conchal cartilage graft for application in human patient. *Journal of Tissue Engineering and Regenerative Medicine*, 13(1), pp.46-57.
13. Lalzawmliana, V., Anand, A., Kumar, V., Das, P., Devi, K.B., Mukherjee, J., Maji, A.K., Kundu, B., Roy, M. and Nandi, S.K., 2019. Potential of growth factor incorporated

mesoporous bioactive glass for in vivo bone regeneration. *Journal of the mechanical behavior of biomedical materials*, 91, pp.182-192.

14. Anand, A., Lalzawmliana, V., Kumar, V., **Das, P.**, Devi, K.B., Maji, A.K., Kundu, B., Roy, M. and Nandi, S.K., 2019. Preparation and in vivo biocompatibility studies of different mesoporous bioactive glasses. *Journal of the mechanical behavior of biomedical materials*, 89, pp.89-98.
15. Naskar, D., Ghosh, A.K., Mandal, M., **Das, P.**, Nandi, S.K. and Kundu, S.C., 2017. Dual growth factor loaded nonmulberry silk fibroin/carbon nanofiber composite 3D scaffolds for in vitro and in vivo bone regeneration. *Biomaterials*, 136, pp.67-85.
16. Nandi, S.K., Bandyopadhyay, S., **Das, P.**, Samanta, I., Mukherjee, P., Roy, S. and Kundu, B., 2016. Understanding osteomyelitis and its treatment through local drug delivery system. *Biotechnology advances*, 34(8), pp.1305-1317.
17. Bhattacharjee, P., Naskar, D., Maiti, T.K., Bhattacharya, D., **Das, P.**, Nandi, S.K. and Kundu, S.C., 2016. Potential of non-mulberry silk protein fibroin blended and grafted poly (ε-caprolactone) nanofibrous matrices for in vivo bone regeneration. *Colloids and Surfaces B: Biointerfaces*, 143, pp.431-439.
18. Nandi, S.K., Kundu, B., Mahato, A., **Das, P.**, Mukherjee, P., 2015. In vivo performance analysis of snail extract incorporated coralline hydroxyapatite in bone healing. *Global Journal of Environmental Science and Research*, 2(3), pp.2349-7335.

Patent(s):

1. S. K. Nandi, S. N. Joardar, Bikash Kanti Biswas, **Piyali Das**, Pradip Kumar Das, Subhasis Batabyal and Rupnarayan Bhattacharya Indian patent on “A process for preparing animal choncal cartilage for transplantation” vide No. 249/kol/2015 dated 09/03/2015 [Granted]
2. Samit Kumar Nandi and **Piyali Das**, Indian patent on “Decellularized xenogenic cartilage extracellular matrix (ECM) scaffolds” Application No. 202131008783 dated 02.03.2021 (patent submitted)

Book Chapter(s):

1. **Das, P.**, Singh, Y.P., Mandal, B.B. and Nandi, S.K., 2020. Tissue-derived decellularized extracellular matrices toward cartilage repair and regeneration. In *Methods in Cell Biology* (Vol. 157, pp. 185-221). Academic Press.
2. Gupta, Kashmira, Payra, Moulina, **Das, Piyali** and Banerjee, Srijoni. "8 Diversity and environmental distribution of ammonia-oxidizing bacteria" In *Anaerobic Ammonium Oxidation: For Industrial Wastewater Treatment* edited by Maulin P. Shah, 121-138. Berlin, Boston: De Gruyter, 2023. <https://doi.org/10.1515/9783110780093-008>

3. Mukherjee, Ritama, Baral, Mohana, Banerjee, Srijoni and **Das, Piyali**. "9 Metabolism and genomics of anammox bacteria" In *Anaerobic Ammonium Oxidation: For Industrial Wastewater Treatment* edited by Maulin P. Shah, 139-158. Berlin, Boston: De Gruyter, 2023. <https://doi.org/10.1515/9783110780093-009>
4. Bhattacharyya, S., Das, M., Banerjee, S. and Das, P., 2024. Removal of Environmental Pollutants from Industrial Wastewater Using Conventional, Advanced Biotechnological Wastewater Treatment Processes. In *Advancements in Bio-systems and Technologies for Wastewater Treatment* (pp. 183-205). Cham: Springer International Publishing.
5. Jana, S., Das, P., Ghosh, P.R. and Nandi, S.K., 2024. Collagen and Gelatin from Fish Processing By-Products for Biomedical Applications. In *Fish Waste to Valuable Products* (pp. 91-117). Singapore: Springer Nature Singapore.
6. Mukherjee, R., Banerjee, S. and Das, P., 2024. The role of microbial bioremediation and biodegradation in wastewater treatment. In *Development in Wastewater Treatment Research and Processes* (pp. 337-352). Elsevier.
7. Jana, S., Das, P. and Nandi, S.K., 2024. Iontropic cross-linking of biopolymers for drug delivery in wound management. In *Iontropic Cross-Linking of Biopolymers* (pp. 619-641). Elsevier.

Other Activities: Received **Adamas University SEED Grant** for the project titled "*Fabrication of Inexpensive Functionalized Acellular Avian Feet Collagen Derived Electrospun Nanofibrous Mats for Wound Healing Applications.*" of amount 1.75 lakh in the year 2023, for 2 year.

Declaration:

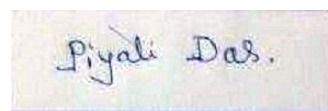
I hereby declare that the information furnished above is true to the best of my Knowledge

Date: 11/12/2024

Place: Kolkata, India

Yours' Faithfully,

Piyali Das

A rectangular box containing a handwritten signature in blue ink that reads "Piyali Das."