



Dr. S. K. Dash, Asst. Prof.

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Bhanja Bihar, Berhampur-760007, Ganjam, Odisha

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Education

- 2016** **DBT-BIRAC Postdoctoral Fellow**
University Innovation Cluster-Anna University, Taramani Campus, Chennai-600113
Nanosensor for Diagnostic Application
- 2014** **Ph.D. in Zoology**
AcSIR-IGIB, Delhi-110007, Delhi, India
Thesis Title: DNA based detection of human brain meningitis (*Neisseria meningitidis*)
- 2008** **M.Sc. Zoology**
Berhampur University, Berampur-760007, Ganjam, Odisha, India
Specialization: Cell Physiology and Biochemistry

Area of Specializations

- Teaching** Cell Biology, Biochemistry, Immunology, and Instrumentation
Research Nanotechnology, Molecular Biosensors, and Molecular Diagnosis

Leadership Activities

- 2019-Present** Asst. Advisor Student Seminar, Dept. of Zoology
2018-Present Dy-Director, COE, Berhampur University
2018-Present Asst. Superintendent, Rushikulya P.G. Boy's Hostel

Professional Affiliation

- 2017- Present** Asst. Prof., Department of Zoology, Berhampur University, Berhampur, Odisha
2017 Lecturer, Department of Zoology, Chikiti Mahavidyalaya
2016 Asst. Prof. Regional Institute of Educations, Odisha, India

Other Administrative Responsibilities Handled

- Dy-coordinator for Induction training programme for OES Group-A under DHE, Odisha 15.01.2018 to 29.01.2018
- Treasurer for National Conference on "CBSA-2019" Organized by the Post Graduate Department of Zoology. 15/02/2019
- Scrutinizer/Tabulator for examinations
- Member of local enquiry committee for affiliated colleges
- Member of Preparatory committee for convocation of Berhampur University
- Member for certificate verification for the exams
- In-charge of sports and games
- Member of NIRF data collection, compiling, and uploading

Contribution to Academic/Technical Education

- Resource person for career Counseling classes organized by Berhampur University, Berhampur
- Part-time Academic Counselor for skill based modular programme classes in Disaster Management conducted by Odisha State open University, Sambalpur
- Jury for paper/model presentation

Editor/Reviewer of

- Talanta (Elsevier)
- Journal of Physics and Chemistry of Solids (Elsevier)
- Acta Scientific Microbiology
- Indian Journal of Microbiology (Springer)
- IP Journal of Diagnostic Pathology and Oncology

Membership of Academic Bodies

Life member

- International Society of Zoological Sciences (ISZS)
- International Society of Nanoscience and Nanotechnology (ISNN)
- Indian Science Congress Associations (ISCA)
- Association of Microbiologists of India (AMI)
- Society of Biological Chemists (SBC)
- Odisha Bigyan Academy (OBA)

Member of

- International Association of Advanced Materials (IAAM)

Conferences/Workshops/Short-term Courses

- Dash SK, Khare S, Sharma M, Kumar A Detection of human bacterial meningitis by specific genetic marker *Omp85* SBC, IISc (Bangalore)13/12/2010
- Dash SK, Khare S, Sharma M, Kumar A *rmpM* gene as a genetic marker for detection of human bacterial meningitis. ISCA, Sriram College (Chennai)03/01/2011
- Dash SK, Khare S, Sharma M, Kumar A Quick diagnosis of bacterial meningitis in 30 min. AMI, Punjab University (Chandigarh)02/11/2011
- Dash SK, Singh S, Khare S, Sharma M, Kumar A DNA nanosensor for human brain bacterial meningitis. ICNANO, Delhi University (Delhi). 18/12/2011
- Dash SK, Sharma M, Khare S, Kumar A Fabrication of multi-walled carbon nanotubes on carbon electrode to develop DNA nanosensor for bacterial meningitis. ISCA, KIIT (Bhubaneswar)03/01/2012
- Dash SK, Sharma M, Khare S, Kumar A Ultrasensitive DNA nanosensor and microarray for detection of human brain meningitis. AMI, KIIT (Bhubaneswar) 22/11/2012
- Dash SK, Lal P, Araya S, Sharma M, Khare S, Kumar A An amperometric genosensor for detection of bacterial meningitis cause by *N. meningitides*. IJWBME, DTU (Delhi) 13/12/2013
- Dash SK Research Methodology. Faculty Development Workshop, SIT Group of Institutions (M.P.) 02-20 Dec 2015
- Dash SK Diagnosis of dreadful diseases: A nano approach, Nanotechnology of biology for society, RN. Degree College, 26/11/2018
- Padhee M, Panda B, Dash SK Biosynthesised manganese oxide nanoparticles a potential drug deliverer. IC-CBSDD, Berhampur University, 08/03/2019.

- Lenka A, Dash SK Microarray A substitute for traditional diagnostic tools. National Conference on Recent Advances in Plant Science, Biotechnology and Bioinformatics, Berhampur University, 17/02/2020.
- Tripathy M, Dash SK Brain computer interface technology, ACBS Berhampur University, 12/02/2020
- Participated in Orientation Program organized by UGC-HRDC, Utkal University, Bhubaneswar from 12/02/2020 to 03/03/2020.

Publications (Articles/Edited Volume)

- Sharma M, Dash SK, Meenu, Kumar A, Application of carbon nanotubes for development of genosensor. Proceedings of National Seminar on Internet: Applications in Research 2011. ISBN No. 978-81-920945-1-9
- Patnaik S, Dash SK, Sethi D, Kumar A, Gupta KC, Kumar P, Engineered polymer-supported synthesis of 3'-carboxyalkyl-modified oligonucleotides and their applications in the construction of biochips for diagnosis of the diseases. Bioconjugate Chem 2012, 23(3):664-670. ISSN No. 1520-48 dx.doi.org/10.1021/bc200610u
- Sharma M, Yadav S, Dash SK, Kumar A, Nanotechnology in enzyme sensors: A review. Proceedings of National Seminar on Challenges in Combating Diseases: Cause to Cure, 2012. ISBN No. 978-81-920945-2-6
- Dash SK, Sharma M, Khare S, Kumar A, *rmpM* gene as a genetic marker for human bacterial meningitis. CellMolBiol 2012, 58:26-30. ISSN No. 1165-158 doi: 10.1170/T917
- Kumar A, Dash SK, Sharma DP, Suman, DNA based biosensors for detection of pathogens. In Molecular Approaches for Plant Fungal Disease Management. Singh HP, Chowdappa P, Chakroborty BN, Podie AR, Eds. Westville Publishers, Delhi, 2012, pp 31-35. ISBN No. 978-81-85873-84-8
- Dash SK, Khare S, Sharma M, Kumar A GenBank NCBI, 2010HQ712170
- Dash SK, Khare S, Sharma M, Kumar A GenBank NCBI, 2010HQ712171
- Dash SK, Sharma M, Kumar A, Diagnostic techniques and treatment of meningitis. In Meningitis: Causes, Diagnosis and Treatment. Houllis G, Karachalios M, Eds. Nova Science Publishers Inc, New York, 2012, pp 203-223. ISBN No. 978-1-62100-833-0
- Dash SK, Sharma M, Khare S, Kumar A, Quick diagnosis of human brain meningitis using *Omp85* gene amplicon as a genetic marker. Ind J Microbiol 2013, 53(2):238-240. ISSN No. 0973-77. doi: 10.1007/s12088-013-0371-6
- Dash SK, Sharma M, Khare S, Kumar A, *Omp85* genosensor for detection of human brain bacterial meningitis. Biotechnol Lett 2013, 35:929-935. ISSN No. 1573-67. doi:10.1007/s10529-013-1161-2
- Dash SK, Sharma M, Khare S, Kumar A, *rmpM* genosensor for detection of human brain bacterial meningitis in cerebrospinal fluid. Appl Biochem Biotechnol 2013, 171:198-208. ISSN No. 1559-02. doi: 10.1007/s12010-013-0339-3
- Dash SK, Sharma M, Khare S, Kumar A, Carbon-Mercaptooctadecane/cccarboxylated multi-walled carbon nanotubes composite based genosensor for detection of bacterial meningitis. Ind J Microbiol 2013, doi: 10.1007/s12088-013-0435-7. ISSN No. 0973-77. doi:10.1007/s12088-013-0435-7
- Dash SK, Sharma M, Khare S, Kumar A, A carbon composite biomaterial based electrochemical DNA nanoensor for human brain meningitis. 2014, 18(10):2647-2659. ISSN No. 1433-07 doi: 10.1007/s10008-014-2525-9

- Bhatt N, Khan N, Dash SK, Khare S, Kumar A *nspA* gene as a specific genetic marker for the detection of *Neisseria meningitidis* causing bacterial meningitis. Ind J Biochem Biophys 2014, 51(3):211-214 ISSN No. 0975-09. <http://www.ncbi.nlm.nih.gov/pubmed/25204083>
- Dash SK, Kumar A Detection of pathogenic bacteria: A genosensor approach. J Bacteriol Mycol: Open Access 2017: 4 (3): 00095 ISSN No. 2469-2786. doi: 10.15406/jbmoa.2017.04.00095
- Dash SK Herpes Meningoencephalitis: Causes, Diagnosis and Treatment.-Disease Which Requires Optimal Approach in Emergency Manner. Pana M Intech Open, Craotia, <http://dx.doi.org/10.5772/intechopen.68553>. PP 49-60. ISBN No. 978-953-51-5002-2
- Dash SK, Khare S, Kumar A Human brain damage detection using PorA marker. J Bacteriol Mycol: Open Access 2017: 5 (1): 00118 ISSN No. 2469-2786. doi: 10.15406/jbmoa.2017.05.00118

Ph. D. Scholars Awarded/Working

- Ms. Bandita Panda: Molecular approaches for quick detection of malaria

M. Phil. Students Awarded/Working

- Ms. Madhusmita Padhee: Laboratory based synthesis of manganese oxide nanoparticles
- Ms. Archita Lenka: Antimicrobial activity of sulphonamide conjugated biogenic silver bimetallic alloy nanoparticles

Trainee Completed/Working

- Mr. Ashish Kumar Behera: M.Sc. Biotechnology, Berhampur University
- Mr. Amit Paikray: M.Sc. Biotechnology, Berhampur University

Awards and Prizes:

- Best Thesis Award: 2013-14 (Ph.D.)
- N.K. Sahu Memorial Medal-2008 (M.Sc.)