

Completed Projects (Prof. Koel Chaudhury, SMST, IIT Kharagpur)

1. A carbon nanotube-based miniaturized sensor for differential diagnosis of ACO form asthma and COPD (NBD), sponsored by the Indian Council of Medical Research (ICMR), from 20-11-2019 to 15-02-2024.
2. National Centre for Technology in Family Welfare (NCTFW) (NCT), sponsored by the Indian Council of Medical Research (ICMR), from 01-09-2019 to 31-03-2024.
3. Aberrant Circulation Epigenomic Signatures: Development and Validation of Non-Invasive Biomarkers for Trans-Generational Monitoring of Air Pollution Associated Cancers (VRM), sponsored by MHRD, Government of India, from 08-02-2017 to 24-06-2023.
4. Design Food Formulation with Resistant Starch and Protein for Diabetic/Nephro-Diabetic Patients: An Approach Towards Commercialization (FRD), sponsored by MHRD, Government of India, from 24-03-2017 to 30-06-2022.
5. Fabrication of a Wash-Free Electrochemical Lab-on-a-Chip for Point-of-Care Early Diagnostics: Simultaneous Detection of Multiple Protein Markers in Women with Rheumatoid Arthritis (WFE), sponsored by the Department of Science & Technology (DST), Government of India, from 30-03-2021 to 29-09-2023.
6. Proteomic biomarkers-based sensing device for minimally invasive diagnosis of endometriosis (DDE), sponsored by the Department of Biotechnology (DBT), Government of India, from 30-01-2017 to 29-07-2020.
7. Establishing A Resource Bank of Exhaled Breath Metabolites in Respiratory Diseases & Exploring the Feasibility of These Molecules as Potential Diagnostic Markers (EBM), sponsored by the Department of Science & Technology (DST), from 24-02-2016 to 23-02-2019.
8. Identification of Potential Biomarkers for The Diagnosis of Endometriosis: A Metabolomics Approach (PBE), sponsored by CSIR, New Delhi, from 01-10-2014 to 30-09-2017.
9. Development of novel biodegradable metallo-curcumin nanoparticles for endometriosis therapy (MNH), sponsored by the Science and Engineering Research Board (SERB), from 19-05-2014 to 18-05-2017.
10. Determination of unmixed COPD with metabolomics markers & assessment of interventions (DUC), sponsored by MHRD, Government of India, from 01-05-2014 to 30-04-2017.
11. Signals & Systems for Life Science (ISL), sponsored by MHRD, Government of India, from 28-03-2014 to 27-03-2019.
12. Test marketing of cotton lap/cellulose pad substitute from jute (MCJ), sponsored by the National Jute Board (NJB), Ministry of Textiles, Government of India, from 26-02-2014 to 25-02-2016.
13. Metabonomics study of primary open angle glaucoma (POAG) to understand underlying disease mechanism and hence development of new treatment strategies (APH), sponsored by Purnima Netralaya, Jamshedpur, from 06-01-2014 to 28-02-2015.
14. Metabolomics study of women with PCOS: a systems biology approach (SWO), sponsored by the Department of Biotechnology (DBT), Government of India, from 26-12-2012 to 25-12-2015.
15. Development of biodegradable polymer encapsulated besifloxacin nanoparticles for endophthalmitis (BPB), sponsored by Netra Jyoti Seva Mandiram Veerayatan, Nalanda, from 04-09-2012 to 03-02-2014.
16. Early prediction of gestational hypertension: a proteomics approach (EGH), sponsored by the Department of Biotechnology (DBT), Government of India, from 27-02-2012 to 26-02-2015.
17. Role of long-term doxycycline as MMP-2/9 inhibitor in COPD (RLD), sponsored by the Institute of Pulmonary Medicine, Kolkata, from 23-11-2011 to 22-11-2013.

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18. Assessment of endometrial receptivity and correlation with sub-endometrial blood flow in women with latent genital tuberculosis undergoing IVF (AER), sponsored by the Indian Council of Medical Research (ICMR), from 22-09-2010 to 30-09-2013.
19. Identification of potential biomarkers for the diagnosis of endometriosis: a proteomics approach (DIP), sponsored by the Department of Science and Technology (DST), Government of India, from 23-06-2010 to 30-06-2013.
20. Nano-micro polyelectrolytic magnetic & electrical conductor composite as intra vas deferens reversible contraceptive (MEC), sponsored by the Indian Council of Medical Research (ICMR), from 23-06-2010 to 30-06-2012.
21. Development of cotton lap/cellulose pad substitute from jute (CCJ), sponsored by the National Jute Board (NJB), Ministry of Textiles, Government of India, from 03-08-2010 to 28-02-2013.
22. Does in vivo antioxidant administration improve semen parameters in infertile men (AAI), sponsored by the Indian Council of Medical Research (ICMR), from 15-07-2009 to 31-07-2012.
23. To investigate the role of matrix metalloproteinases (MMPs) and tissue inhibitors (TIMPs) in follicular fluid of women with endometriosis undergoing IVF/ICSI (CPO), sponsored by WB-DST, Government of West Bengal, from 02-12-2008 to 01-12-2011.
24. Development of Palposcope for medical diagnostic kit and telemedicine (KTM), sponsored by the Department of Science & Technology (DST), New Delhi, from 15-12-2005 to 14-12-2008.
25. Impact of follicular fluid and IVF media generated oxidative stress on oocyte maturation, fertilization and embryo development (IFF), sponsored by the Department of Biotechnology (DBT), Government of India, from 14-09-2006 to 30-09-2009.
26. A paper-based diagnostic method for differentiating Asthma-COPD (PBD), sponsored by the Indian Council of Medical Research (ICMR), from 01-10-2017 to 30-06-2018.