



DEPARTMENT OF PHARMACEUTICAL TECHNOLOGY
CENTRE FOR EXCELLENCE IN NANOBIO TRANSLATIONAL RESEARCH
UNIVERSITY COLLEGE OF ENGINEERING
BHARTHIDASAN INSTITUTE OF TECHNOLOGY CAMPUS
ANNA UNIVERSITY, TIRUCHIRAPPALLI, TAMIL NADU. PIN – 620 024

SPONSORED RESEARCH PROJECTS

| Name of the PI/Co PI | Title of the Project | Funding Agency | Amount sanctioned in lakhs |
|---|--|----------------|----------------------------|
| 2024-2025 | | | |
| Prof. Dr. E. Sanmuga Priya (PI) | Harnessing phenolic acid-bound Arabinoxylans from kodo millet as potent immunoregulatory dietary supplement | CMRG | 34.12500 |
| 2023-2024 | | | |
| Prof. Dr. P. Selvamani (PI) | Development of novel calcifediol loaded nano-in-micro (Nim) inhalable antibacterial powder formulation against respiratory superbugs | CSIR | 25.00 |
| 2021-2022 | | | |
| Prof. Dr. E.Sanmuga Priya (PI) Dr. P. Senthamil Selvan (Co-PI) | Identification of S100 proteins binding distinct DAMP receptors and its activated signaling pathways that cause formation of NLRP3 inflammasome – Development of specific S100 inhibitors | ICMR | 23.35 |

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| Prof. Dr. K. Ruckmani (PI) Dr. A. Shanmugarathinam (Co-PI) | Development of nano based smart pesticide formulations for high agricultural productivity | DST | 55.74 |
| 2019 – 2020 | | | |
| Prof. Dr. K. Ruckmani (PI) | EDII Anna University PHARMANEST Incubation Center | Entrepreneurship Development Innovation Institute (EDII), Chennai | 249.90 |
| 2018 – 2019 | | | |
| Prof. Dr. P. Selvamani (PI) Dr. S. Latha (Co-PI) Prof. Y. Takemura (PI) Yokohama National University, Japan Dr.Satoshi Ota (Co-PI) Shizuoka University, Japan | Development of peptide conjugated nano-magnetic probes as cancer theranostics | DST, India and JSPS, Japan | 5.92 INR (980000 JPY) |
| Dr. S. Latha (PI) Prof. O. A. Odekku (PI) University of Ibadan, South Africa | Formulation and evaluation of magnetically triggerable smart tablets for improved ulcer therapy | Africa-India mobility fund of DBT Welcome Trust, Indian and African Academy of Sciences | 5.69 IND (0.075USD) |
| Prof. Dr. N. Subramanian (PI) Prof. Dr. K. Ruckmani (Co-PI) Dr. A. Shanmugarathinam (Co-PI) | Synthesis, characterization, functional and toxicological evaluation of triblock grafted copolymer for the delivery of poorly soluble drugs | DST/Industry Academia linkage | 92.04 |

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| Dr.Sandhya Pittala (Co-PI) Crenza Pharmaceuticals, Hyderabad | | | |
| 2017 – 2018 | | | |
| Prof. Dr. K. Ruckmani (PI) Dr. N. Subramanian (Co-PI) | National Facility on Bioactive peptides from Milk | DST | 167.16 |
| Dr. N. Subramanian (PI) Dr. K. Ruckmani (Co-PI) | Resveratrol and catechins loaded niosomes and nanoparticles as delivery vehicles for fortification of milk and milk products | ICAR | 28.85 |
| Dr. S. Lakshmana Prabu (PI) Prof. Dr. K. Ruckmani (Co-PI) | Systematic exploration and analysis of Indigenous Nagaland medicinal plant Clematis nepaulesis | DBT | 26.72 |
| 2016-2017 | | | |
| Dr. P. Selvamani (PI) | Bioassay guided fractionation of proteins/peptides from marine resources, structural characterization and evaluation as therapeutic lead against nosocomical pathogens and as nutraceutical supplement | SERB | 53.39 |
| Prof. Dr. K. Ruckmani (PI) Dr. A. Shanmugarathinam (Co-PI) | Stabilization of Plague (A Potential Bioweapon) Vaccine Using Biocompatible Polysaccharides | DRDO | 44.4872 |
| 2015-2016 | | | |

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| Prof. Dr. E. Sanmugapriya (PI) | Amelioration of hydrolysable tannin fraction from Terminalia chebula fruits as potent antirheumatic agent | SERB | 26.93 |
| Dr. S. Latha (PI) Prof. Dr. P. Selvamani (Co-PI) | Magnetically triggered drug release from magnetic nanoparticles | DST | 7.04 |
| Dr. S. Latha (PI) | Development of Magnetic Polyherbal formulation for Targeted Therapy of Breast Cancer | SERB | 11.00 |
| 2013-2014 | | | |
| Prof. Dr. N. Subramanian (PI) | Targeted delivery of camptothecin using polymer stabilized nanoemulsion for the improved treatment of breast cancer | SERB | 25.58 |
| 2012-2013 | | | |
| Prof. Dr. K. Ruckmani (PI) Prof. Dr. P. Selvamani (Co-PI) | Isolation, Characterization and Formulation studies of gums obtained from Albizia Stipulata and Prunus cerasoides of Mizoram | DBT | 29.40 |
| Prof. Dr. A. Puratchikody (PI) Dr. A. Umamaheswari (Co-PI) | Design, synthesis and evaluation of Novel derivatives of dibromotyrosine as anti-inflammatory COX-2 inhibitors | DST | 30.42 |
| Prof. Dr. N. Subramanian (PI) | Development of Biodegradable Temperature and pH Responsive Hybrid Polymer-Peptide System for the Efficient Intraocular Delivery of Drugs | DBT | 58.50 |

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| Prof. Dr. P. Selvamani (PI) | Systematic exploration and pharmacological appraisal of active live botanical ingredient (fraction) isolated from herbs as possible adjunct/alternate therapeutic aid for dementia associated with Alzheimer's disease | DST | 26.85 |
| 2010-2011 | | | |
| Prof. Dr. K. Ruckmani (PI) Prof. Dr. P. Selvamani (Co-PI) Prof. Dr. N. Subramanian (Co-PI) Prof. Dr. E. Sanmugapriya (Co-PI) Dr. P. Senthamil Selvan (Co-PI) | National Facility for Drug Development for Academia, Pharmaceutical and Allied Industries | DST | 600.00 |
| Dr. S. Latha (PI) Prof. Dr. P. Selvamani (Co-PI) | Design Construction of Fe Drug Nano Complex loaded nano/micro bullets using a novel hybrid technology for magnetic targeted therapy and its comparative evaluation with special emphasis on rheumatoid arthritis | DRDO | 12.564 |
| 2008-2009 | | | |
| Prof. Dr. K. Ruckmani (PI) | Nanocomplexes for the Targeted Drug Delivery to the Inflamed Site of Lungs | DST | 32.14 |
| Prof. Dr. N. Subramanian (PI) | Development, characterization, and Biological/pharmaco-technical evaluation of microemulsion and lipid dispersion for drug delivery and detoxification | SERC | 20.77 |

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| Dr. S. Latha (PI) Prof. Dr. P. Selvamani (Co-PI) | Formulation development and in-vivo evaluation of a sustained release transdermal drug delivery system of a selected new antiemetic drug. | UGC | 5.85 |
| 2006-2007 | | | |
| Prof. Dr. A. Puratchikody (PI) | Isolation and characterization of bioactive molecules from marine organisms | DST | 14.36 |
| Dr. S. Latha (PI) | Development of a novel method for the manufacture of pharmaceutical magnetic nanoparticles as a targeted drug release system for future applications in human GI tract | DST | 10.62 |
| 2004-2005 | | | |
| Prof. Dr. P. Selvamani (PI) Dr. S. Latha | Bioprospection and characterization of bioactive metabolites from marine organisms as possible therapeutic agents | TNSCST | 2.19 |
| | | Cumulative total = | 1,726.5862 |