



**UNIVERSITY COLLEGE OF ENGINEERING
BIT CAMPUS - ANNA UNIVERSITY
TIRUCHIRAPPALLI - 620 024**

DEPARTMENT OF BIOTECHNOLOGY

R & D Projects

Name of the Faculty (PI/Co-PI)	Title of the Project	Funding Agency	Amount Sanctioned (In Rupees)
2006 – 2007			
Dr. P. Rajaguru, Co-PI: Dr. S. John Venison	Genotoxicity profiling of ground water in Noyal river basin	UGC	11,29,232
2007 – 2008			
Dr. P. Rajaguru Co-PI : Dr. S. John Venison	Designing a 'Multitarget RNAi' effector molecule for simultaneous silencing of multiple genes	DBT	30,71,000
Dr. P. Rajaguru	Screening and characterization of active constituents from an antidiabetic plant <i>Gymnema montanum</i> and its pharmacological evaluation using genomic and proteomic approach (Indo-Japan)	DST-JSPS	2,58,000
Dr. S. John Venison Co-PI : Dr. P. Rajaguru	Transgenic <i>Bacillus sphaericus</i> for effective mosquito control	DBT	17,40,000
Dr. S. John Venison	Cloning and expression of pyruvate decarboxylase and alcohol dehydrogenase genes in to cellulolytic bacteria for cellulosic ethanol production	DRDO	16,21,000
Dr. S. John Venison	Cloning and expression of NS-1 and prM proteins for the diagnosis of dengue infections	DST	22,40,900
Dr. P. Suresh kumar	<i>In vitro</i> regeneration of selected endangered medicinal plants, activity guided extraction, comparative assessment of anti-diabetic and antioxidant activity	DST	20,30,400
2008 – 2009			
Dr. P. Rajaguru	Silencing of ER stress response genes using RNA interference to protect hyperglycemia induced pancreatic β -cell death	DST	28,86,400
2010 – 2011			
Dr. P. Rajaguru Co-PI: Dr. N. Subramanian Dr. P. Suresh Kumar	Simultaneous silencing of multiple pro-angiogenic factors to suppress tumor-induced angiogenesis	DBT	72,66,000
Dr. V. Pugalenth, Co-PI: Dr. P. Rajaguru Mr. M. Rengasamy	Enhancement of biohydrogen production using integrated nanoparticle catalysed fermentation MEC and process modeling	DBT	24,25,000
Dr. P. Rajaguru	To augment facilities for post-graduate teaching and research in the Department	DST-FIST	19,50,000
2011 – 2012			
Dr. B. Anandaraj	Marine Nano factories – Sense and Sensing	DST	25,00,000



**UNIVERSITY COLLEGE OF ENGINEERING
BIT CAMPUS - ANNA UNIVERSITY
TIRUCHIRAPPALLI - 620 024**

DEPARTMENT OF BIOTECHNOLOGY

R & D Projects

Name of the Faculty (PI/Co-PI)	Title of the Project	Funding Agency	Amount Sanctioned (In Rupees)
2012 – 2013			
Co- PI: Dr. P. Rajaguru	Development of bio degradable temperature and pH responsive hybrid polymer – peptide system for efficient intraocular delivery of drugs	DBT	58,45,000
Dr. P. S. Sudhakar Gandhi	Mouse seminal vesicle sulfhydryl oxidase (SOx): cloning and expression of recombinant enzyme to identify its cross linking substrate among seminal vesicle proteins	DST	34,70,000
Dr. P. S. Sudhakar Gandhi	Structural exploration of recombinant mouse seminal vesicle spink-3 receptor on sperm acrosome	DBT	29,87,000
2013 – 2014			
Dr. S. John Venison	Development of a recombinant NS1 antigen based diagnostic kit for the early detection of dengue virus infection	DST	42,42,000
Dr. S. John Venison	Recombinant antigens as a tool for analyzing antibody response among dengue patients to understand the pathology and pathogenesis	ICMR	25,84,000
Dr. S. Geetha	Green synthesis of gold nanoparticle using algal species and evaluation of its anticancer activity	CTDT, AU, Chennai	50,000
2014- 2015			
Dr. P. Rajaguru Co-PI: Dr. V. Pugalenth Dr. S. Geetha	Fluorescent protein-reporter based assay to measure toxicity of nanomaterials	DST- Nano Mission	79,96,400/-
Dr. P. Rajaguru Co-PI: Dr. V. Pugalenth	Developing a human cell based multigene promoter - fluorescent protein fusion - reporter genotoxicity assay	ICMR	47,00,000/-
Dr. P. Rajaguru Co-PI: Dr. N. Subramanian	Designing minicircle vector for tumour specific co-expression of shRNAs & transgene for improved cancer gene therapy	DST	55,65,000/-
Dr. P. Rajaguru Co-PI: Dr. N. Subramanian Dr. S. Geetha	A comprehensive analysis of SNPs in miRNAs and its impact on drug response in South Indian population	ICMR	25,00,000/-
Dr. Rajasekaran Subbiah	The role and biology of miR-16 in the pathogenesis and resolutions in lung fibrosis	DBT	88,00,000/-
2015 – 2016			
Dr. Rajasekaran	Role of miR-15a and miR-16 in the	DST	23,00,000/-



**UNIVERSITY COLLEGE OF ENGINEERING
BIT CAMPUS - ANNA UNIVERSITY
TIRUCHIRAPPALLI - 620 024**

DEPARTMENT OF BIOTECHNOLOGY

R & D Projects

Subbiah	pathogenesis and resolution of experimentally induced - lung fibrosis		
2016 - 2017			
Dr. P. Rajaguru Co-PI: Dr. R. Brindha Dr. K. Ravishnakar	Sequential Anaerobic Solar Photofenton process for effective treatment of textile effluents	DBT	32,70,000/-
Dr. P Sureshkumar	Enhancement and scaleup the gingerol content in the Zingiber officinale using gamma radiation and validation of its antidiabetic potential	SERB	32,46,000/-
2022-2023			
Dr.R Brindha	Utilization of iron ore mine tailings and soil scape biofilters for the abatement of antibiotics in pharmaceutical waste water	SERB	34,20,318/-