LIST OF RESEARCH PROGRAMMES PLANNED TO BE UNDERTAKEN DURING NEXT 3 YEARS

S. No.	Title and scope of project	Sponsoring Agency	Proposed year of start	Duration in months	Capital (in lakhs)	Recurring (in lakhs)	Total (in lakhs)	Remarks	Specified equipment to be purchased	Specialized raw materials
1.	The gut microbiome in sickle cell disease: Characterization and potential implications	DST	2024-25	60	15,00,000/-	78,00,000/-	93,00,000/-	DST WIDYUSHI	Nanopore	NIL
2.	A lateral Flow point-of-care device for diagnosis of Preeclampsia for low-resources settings	BIRAC BIO Scheme	2024-25	18	40,000/-	45,80,000/-	46,20,000/-		Fridge	Chemicals, gold-standard kits, plasticware and glassware for routine experiments.
3.	CRISPR/Cas9 Gene Editing for Sickle Cell Disease	ICMR	2024-25	36	36,50,000/-	38,56,898/-	75,06,898/-		Liquid N2 Cylinder, CO2 Incubator, Laminar Air Flow, Inverted Microscope, PCR, Electrophoresis unit, HPLC	Reagents, Chemicals, Kits, Cell Lines, Plasmid, Enzymes, Culture media, Antibiotics,

										Hormones, Filters, Filter membranes, Stains, PCR reagents and plasticware etc
4.	Development of Multiplex Real-Time PCR-Based Diagnostic Kit for High-Risk HPV 16 and HPV 18	ICMR	2024-25	36	7,50,000/-	57,54,746.4	65,04,746.40/-		qRT-PCR	For outsourcing of samples for LBC testing, Collection Tubes, Plastic Wares, Glass Wares, Disposables (Gloves, mask etc
5.	Identification of pathophysiological changes due to metabolic alterations in sickled RBC in the Indian Population.	ICMR	2024-25	36	11,50,000/-	51,65,648/-	63,15,648/-		Ice Flaking Machine, Lyophilizer	Lab chemicals Collection Tubes, Plastic Wares, Glass Wares, Disposables, Gloves, mask, Kits and reagents, other

										consumables for LCMS and NMR
6.	Cutting-edge approach for accelerated antimicrobial susceptibility testing through resazurine reduction for the assessment of urinary track infections	ICMR	2024-25	24	3,26,000/-	22,98,432/-	26,24,432/-		ELISA microplate reader, benchtop centrifuge	Media, antibiotics, microtitre plate, resazurine, syringe filter
7.	"Synergistic Effect of Bioactive Anticarcinogens of Soybean on Various Types of Cancers: An In vitro Study"	MPCST	2024-25	36	2,00,000/-	23,82,210/-	25,82,210/-		Soxhlet Extraction Apparatus with cellulose and glass thimbles, TLC chamber and accessories	Consumables
8.	Evaluating Surface Enhanced Raman Spectroscopy (SERS) as a diagnostic and prognostic tool in Breast Cancer: A non-invasive approach.	MPCST	2024-25	36	3,00,000/-	26,80,060/-	29,80,060/-		Antigen Retrieval Chamber	Consumables

9.	Integrated Metabolomics and Transcriptomics Study to Decode Soybean Defence Response under Severe Biotic Stress	ICAR-NASF	2024	60	70.00	47.147	157.15			