



CSIR-Indian Institute of Toxicology Research (CSIR-IITR)

Vishvigyan Bhawan

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CSIR-IITR BH/P-50 requirements for FY 2025-28 (3-year requirements)

Requirements under Rs. 10.0 lakh

(1) Division: REACT

Sl. No.	Equipment	Tentative budget (Lakhs)
1.	Digital lux meter	0.2
2.	Sound level meter	0.2
3.	Digital programmable electronic timer	0.2
4.	Microwave oven	0.25
5.	Temperature humidity data recorder	0.3
6.	Horizontal deep freezer (-20)	0.4
7.	Incubator	0.45
8.	Magnetic stirrer with heating	0.5
9.	Water bath (cell culture)	0.5
10.	Water bath sonicator	0.5
11.	Vortex mixer	0.6
12.	Fridge (cell culture)	0.6
13.	Mini centrifuge	0.66
14.	Vortex with head	0.8
15.	Hot water pressure jet machine	1.0
16.	RO system, 50 L/hr capacity at CRK Campus (2 Nos.)	1.0
17.	-20 degree deep freezer	1.0
18.	R O system, 20 litter/hour capacity at MG Marg Campus (3 Nos.)	1.0
19.	Orbital shaker	1.0
20.	ELISA plate washer	2.7
21.	Magnetic stirrer (Multiplate)	3.0
22.	Centrifuge	3.0
23.	iSPAWN-S	3.75
24.	Weighing balance (5-digit Precise weighing)	4.0
25.	Animal weighing balance (2 Nos.) New Instrument	4.0
26.	Refrigerated centrifuge	5.0
27.	Autoclave	5.5
28.	Nanodrop spectrophotometer New Instrument	6.0
29.	Inverted microscope	7.0
30.	CO2 euthanasia system	8.0

(2) Division: ASSIST

Sl. No.	Equipment	Tentative budget (Lakhs)
31.	Grinding mill	0.25
32.	UV inspection cabinet	0.3
33.	Ultra Sonicator (3-4 L)	0.4
34.	Manual bottle sealing machine with foil	0.5
35.	Vortex (Multitube position) (02 nos)	0.5
36.	Ultraviolet Viewing Cabinet with lamps	0.5
37.	pH meter	0.5
38.	Laboratory shower and Eye washer with a suitable pump	0.6
39.	Sonicator	0.6
40.	Wireless Temperature and Humidity Sensors (2 pcs)	0.6
41.	Dehumidifier	0.7
42.	-20 Refrigerator	0.75
43.	Mini Vortex (2)	0.8
44.	Sonicator	1
45.	Melting Point device	1
46.	Refrigerator (-20° C)	1
47.	Conductivity meter	1
48.	Hot Air Oven	1
49.	Dry Bath	1
50.	Anti-vibration laboratory tables for weighing machine (1no)	1
51.	-20° Double-door refrigerator	1.25
52.	Autoclave	1.5
53.	pH Meter (02 nos)	1.75
54.	Incubator	2
55.	Centrifuge	2
56.	Muffle furnace	2
57.	Hot air Oven	2.5
58.	Muffle furnace	2.5
59.	Vacuum Oven	2.5
60.	Balance (one five digits and one four-digit)	3
61.	Fume hood	3
62.	Solid phase extraction (SPE) vacuum manifold	3
63.	Thermomixer	3
64.	Bomb Calorimeter	3
65.	Moisture analyser	3.5
66.	Moisture analyser	3.5
67.	Multi-position magnetic hot plate stirrer (02 nos)	4
68.	BOD Incubator	4
69.	PCR Thermocycler	4
70.	Laminar Flow Cabinet	4.5
71.	Hot air oven	4.5

Sl. No.	Equipment	Tentative budget (Lakhs)
72.	All-in-One PC with Equipment (3-D Bioprinter, BET Analyzer, 3D bioprinter)	4.75
73.	Milli-Q water purification system	5
74.	Nitrogen Generator	5
75.	Glutomatic system with kneader and gluten dryer	5
76.	Centrifuge, operating at 6000 ± 5 rpm and equipped with gluten index cassettes	5
77.	Acid Digestion Fume Hood with installation	5
78.	CO & CO ₂ real-time monitoring instrument	5
79.	Automatic digital Vacuum Desiccator (2 nos)	5
80.	Microscope	5
81.	Fume hood	5
82.	Muffle Furnace	6
83.	Stack Emission Sampler / Kit (02 nos)	6
84.	Rotary Vacuum Concentrator	7.5
85.	Nanodrop Spectrophotometer	8
86.	Incubator shaker	8.0
87.	Tower Servers (2 Nos)	8.5
88.	Nanodrop	10
89.	-80°C Refrigerator	10

(3) Division: FEST

Sl. No.	Equipment	Tentative budget (Lakhs)
90.	Magnetic stirrer with hot plate (for 2-5L capacity)	0.5
91.	Online UPS system-3KVA capacity	0.5
92.	Waterbath Shaker	0.25
93.	Waterbath sonicator	0.45
94.	Semi-Dry Unit	1.0
95.	Gel electrophoresis equipment with accessories	1.5
96.	Deep Freezer (-20C)	1.5
97.	T-Maze	1.5
98.	Open Field Test	1.5
99.	Elevated Plus Maze (Anxiety Like Behavior)	2.0
100.	Deep freezer (-20°C)	2.0
101.	Polymerase chain reaction machine	2.5
102.	Novel Objects Recognition Instrument	2.5
103.	Automated Rotarod	3.0
104.	Analytical Balance	3.0
105.	Biosafety cabinet [medium sized]	3.0
106.	Grip Strength Meter	3.5
107.	Gel system Vertical Mini gel System with accessories	3.5
108.	Semi-dry electroblotting System with compatible power supply	4.0

Sl. No.	Equipment	Tentative budget (Lakhs)
109.	Western blotting unit	4.5
110.	Automated Y-maze Animal Behavior System	5.0
111.	Laminar Flow Cabinet	5.0
112.	Ice flaking machine	6.0
113.	Liquid Nitrogen Tank with accessories	6.0
114.	Biosafety cabinet	6.0
115.	Sonicator	6.0
116.	Portable (Field) Multi-parameter Water quality Meter	6.0
117.	Ultra Sonicator	6.0
118.	Ultra Sonicator	6.0
119.	Shaker Incubator	6.5
120.	Bio-safety Level 2	7.0
121.	Fluorimeter	7.0
122.	CO ₂ Incubator	7.0
123.	BOD incubator	7.0
124.	CO ₂ Incubator	8.0
125.	Centrifuge (for microcentrifuge tubes)	8.0
126.	Centrifuge refrigerated	10.0
127.	Electroporator	10.0
128.	Deep freezer (-80° C)	10.0
129.	Deep freezer (-80° C)	10.0

Requirements more than Rs. 10.0 lakh and upto 25.0 lakhs

(1) Division: REACT

Sl. No.	Equipment	Tentative budget (Lakhs)
130.	Cooling incubator (2 Nos.)	11.8
131.	Tissue homogenizer	11.8
132.	Compound upright microscope with image analyzer	15.0
133.	Microtome	15.0
134.	Fully automatic Cryostat microtome	20.0
135.	Probe sonicator	20.0
136.	Microinjection system (microinjector, micromanipulator, pipette puller)	22.0
137.	Advanced imaging system for western blot	24.0
138.	Real Time PCR (Not finalized in 2023-24)	24.0

(2) Division: ASSIST

Sl. No.	Equipment	Tentative budget (Lakhs)
139.	Real-time Particle counter and analyzers for the size range from nano to micro level	12
140.	Dual-beam spectrophotometer	15.0
141.	Vacuum Rotary Evaporator with chiller	15.0
142.	Bomb Calorimeter	15.0
143.	Online UPS (HPC Facility & Servers- 30 KVA, TDIC for two floors- 30 KVA)	15.0
144.	20L rotary evaporator with chiller and pump	20.0
145.	Glassware washer	20.0
146.	Steam sterilizers (Autoclave)	20.0
147.	Multimode Plate Reader (preferentially 4 channel)	20.0
148.	RT-PCR Machine	20.0
149.	Lyophilizer	22.0
150.	Sample homogenizer and sampler	25.0
151.	Type II water preparation unit with 40 L storage capacity	25.0
152.	Laboratory furniture	25.0
153.	Gel doc	25.0

(3) Division: FEST

Sl. No.	Equipment	Tentative budget (Lakhs)
154.	Chemidoc system (Central Facility)	25.0
155.	6 stage Viable Andersen Cascade Impactors	15.0
156.	VOCs analyzer (real-time)	15.0
157.	High-end Server workstation	20.0
158.	Cryostat	20.0

Requirements more than Rs. 25.0 lakhs

(1) Division: REACT

Sl. No.	Equipment	Tentative budget (Lakhs)
159.	Histology Grossing Station (From 2023 List – Re-tender)	30.0
160.	Fluorescence spectrophotometer	30.0
161.	GPU powered computer workstation/server * New Instrument	30.0
162.	Fully automated urine analyzer New Instrument	30.0
163.	Laboratory water purification system (pure and ultra-pure water)	36.0
164.	Cigarette smoke exposure system - in-vitro and whole-body	40.0
165.	CASA (Computer-assisted semen analyzer)	50.0
166.	In-vitro inhalation exposure system at the air/liquid interface New Instrument	60.0
167.	Automated immunostainers New Instrument	60.0
168.	Rheometer New Instrument	60.0
169.	Zebrafish standalone system	82.6

(2) Division: ASSIST

Sl. No.	Equipment	Tentative budget (Lakhs)
170.	Microwave synthesizer	28
171.	Gas chromatograph with ECD and FID detector	30.0
172.	Fluorescent Microscope (with multicolor Imaging attachments and analysis software)	30.0
173.	Glove Box	30.0
174.	Gas chromatograph with ECD and FID detector	30
175.	Fluorescence Spectrophotometer	30
176.	Fluorescence microscope	30
177.	Vector network analyzer	32.0
178.	Steam sterilizers (Autoclave)	40.0
179.	FTIR with ATR and transmission mode	45.0
180.	GPU- Powered based Server with NV Link Interconnect	50.0
181.	Rheometer	50
182.	120 KV Transmission electron microscope	450.0

(3) Division: FEST

Sl. No.	Equipment	Tentative budget (Lakhs)
183.	Inverted Fluorescent Microscope	30.0
184.	Portable Flow cytometer	50.0
185.	Animal Live Imaging Facility	500.0