ADICHUNCHANAGIRI INSTITUTE OF MOLECULAR MEDICINE (AIMM)

Adichunchanagiri Institute for Molecular Medicine (AIMM) functioning along with AIMS – Central Research Laboratory. The research program from 1998 till April 2017 has been mainly centred around dietary antioxidants in prevention of oxidative stress, which is now recognized as a possible etiological factor for many diseases like Cancer, arthritis, cataract, heart ailments, snake bite, malaria, bacterial, fungal infections. It is a matter of pride that the institute has been funded by National Cancer Institute of National Institute of Health towards developing the Turmeric peptide as a possible cancer preventive biomolecule under RAPID program. It is a matter of very high satisfaction that, our two publications have been cited as the top entities as most read, downloaded and cited among 2000 publications.

In brief, we have discovered a very potent antioxidant from Turmeric with a molecular weight of 8 kDa which we have named as “Arishinin”. This discovery is patented at the Chennai patent office for Indian patent and also has been awarded US patent **(US 8,389,677B2).**

The institute was successful in identifying a death factor released by fuel, cigarette or organic smoke called SCID (Smoke Condensate Induced Death factor). We have also reported death factors released from snake venom called as PID-15 (Phospholipase Induced Death factor -15). The above two factors appear to be death signalling peptides. Other than the above, we have purified a 14 kDa protein from Turmeric and also sequenced the above and registered it in Swiss Uniprot (Uniprot P85278).

Now, the laboratory is mainly focusing on synthesis and developing new chemical entities/ drug like small molecules in the field of Cancer, Leishmaniasis and Diabetes. The drug discovery involves the identification of lead molecules, screening hits, and optimization of those hits to increase the affinity, selectivity, efficacy/potency, metabolic stability and bioavailability.

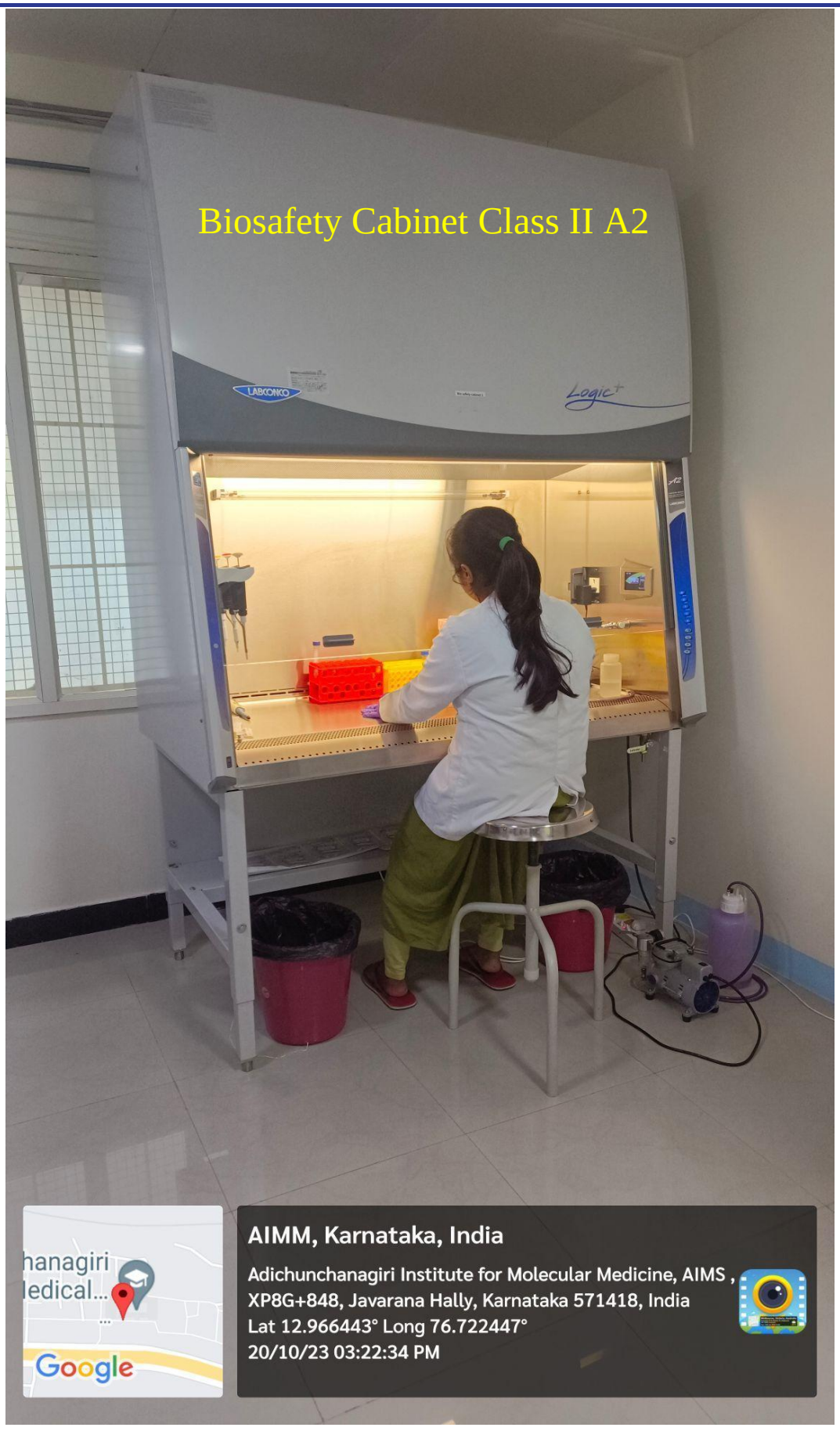
With the interest of the above said field, we are actively involved in synthesizing heterocyclic compounds to target proteins involved in DNA repair, cancer metastasis etc. Apart from the above said disease field, we are also in the midst of identifying small molecules and biomarkers for cardiovascular diseases and diabetes.

List of Major Equipment available at AIMM

Sl. No.	Name of Equipment	Make and Model	Name of the Department	Date of Purchase
1	High throughput liquid handler	Tecan Freedom EVO 150	AIMM	2018
2	Bio Safety Cabinet	Labconco 302411170	AIMM	2018
3	Carbon dioxide Incubator	Panasonic MCO-170A1CUVH	AIMM	2018
4	Immuno-fluorescence microscope	Olympus CKX53	AIMM	2018
5	Tecan multimode plate reader	Tecan Infinite MNano+	AIMM	2018
6	Chemidoc	UVITEC Alliance Q9	AIMM	2018
7	Refrigerated centrifuge	Gyrozen 1580R	AIMM	2018
8	Speed vac concentrator	Hyper Vac VC2124	AIMM	2018
9	BOD Incubator	Equitron 7142-150	AIMM	2018
10	Autoclave	Equitron 7441FA - 113	AIMM	2018

11	Rotary evaporator	DLAB RE-100-pro	AIMM	2018
12	Fume hoods	Modern Labs	AIMM	2017
13	Cell counter	Thermo countess 3Fl	AIMM	2022
14	Millipore System	Aqualic Lab	AIMM	2018
15	Vertical laminar air flow cabinet	Anamatrix	AIMM	2018
16	UV Visible Spectrophotometer1700	Shimadzu	AIMM	2018
17	Ice flaker	Anamatrix	AIMM	2018
18	-20 deep freezer	Cell frost	AIMM	2018
19	Pharmaceutical refrigerator (-80)	Panasonic	AIMM	2018
20	Upright refrigerator	FKG model	AIMM	2018
21	Gradient Thermal Cycler	Techne	AIMM	2018
22	Micro Balance	Shimadzu	AIMM	2018
23	Western Blotting Semi Dry transfer system	Invitrogen	AIMM	2018
24	Biosafety Cabinet Class II	Yakos	AIMM	2018
25	Liquid Storage Containers (2 in Nos)	Roller Base	AIMM	2018
26	Tissue Lyser	Qiagen	AIMM	2018
27	Probe Sonicator	JJ biotek	AIMM	2018

Carbon dioxide Incubator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Inverted phase Contrast Binocular Microscope
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Refrigerated Centrifuge
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Liquid Nitrogen Containers

Deep Freezer


BIO-SAFETY CABINET
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XP8G+848, Javarana Hally, Karnataka 571418, India
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Rotary Evaporator
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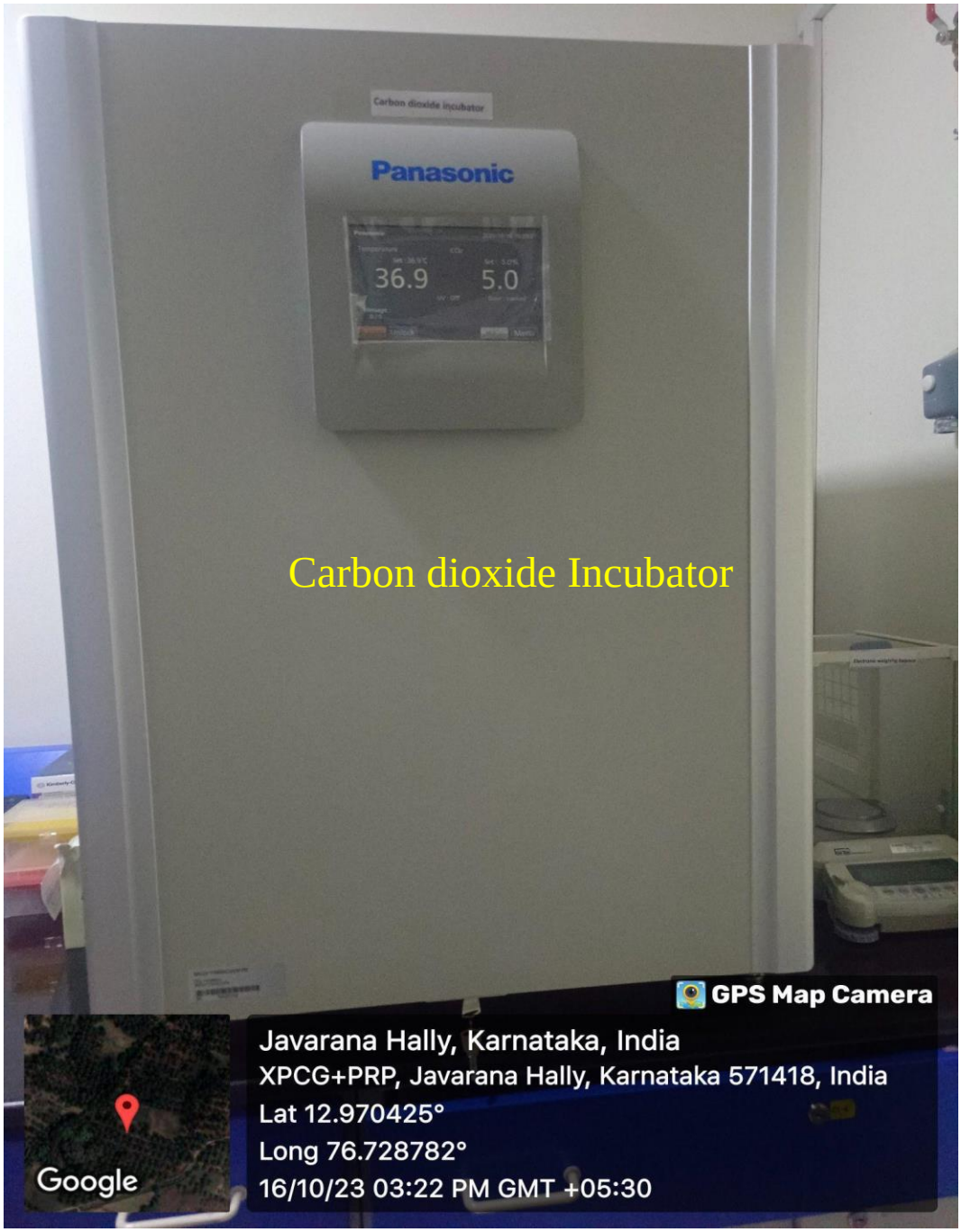
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Student working with Inverted Binocular Fluorescence Microscope
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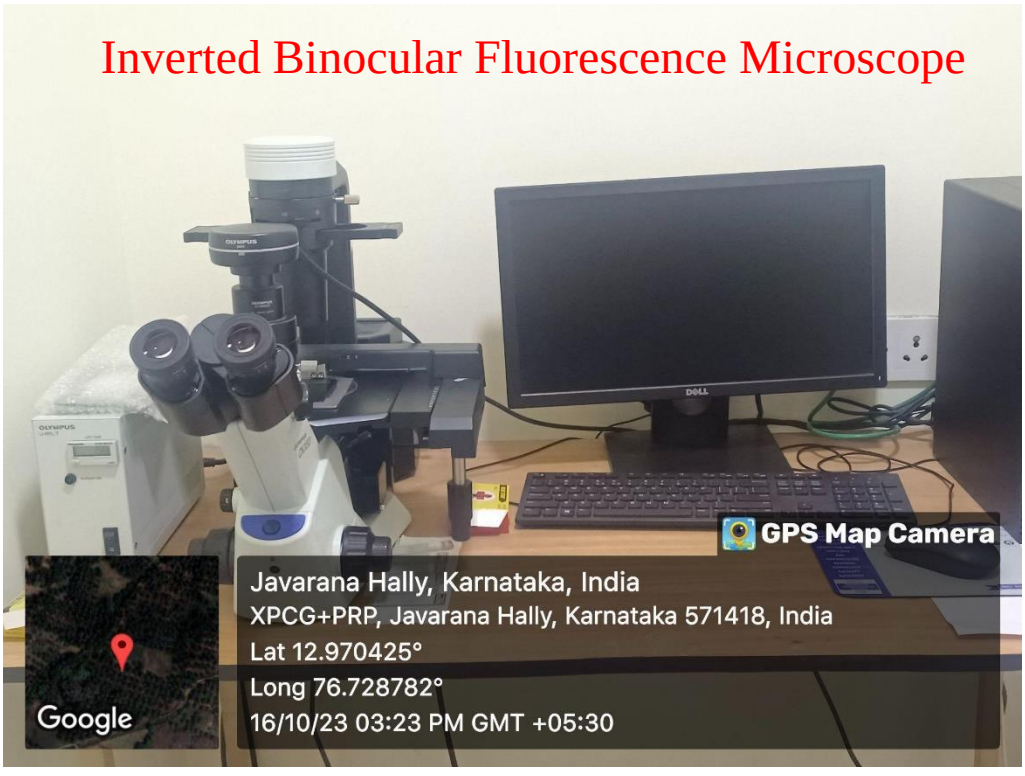
Inverted Binocular Fluorescence Microscope

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HOT AIR OVEN
OPERATING INSTRUCTIONS
Hot Air Oven
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GPS Map Camera
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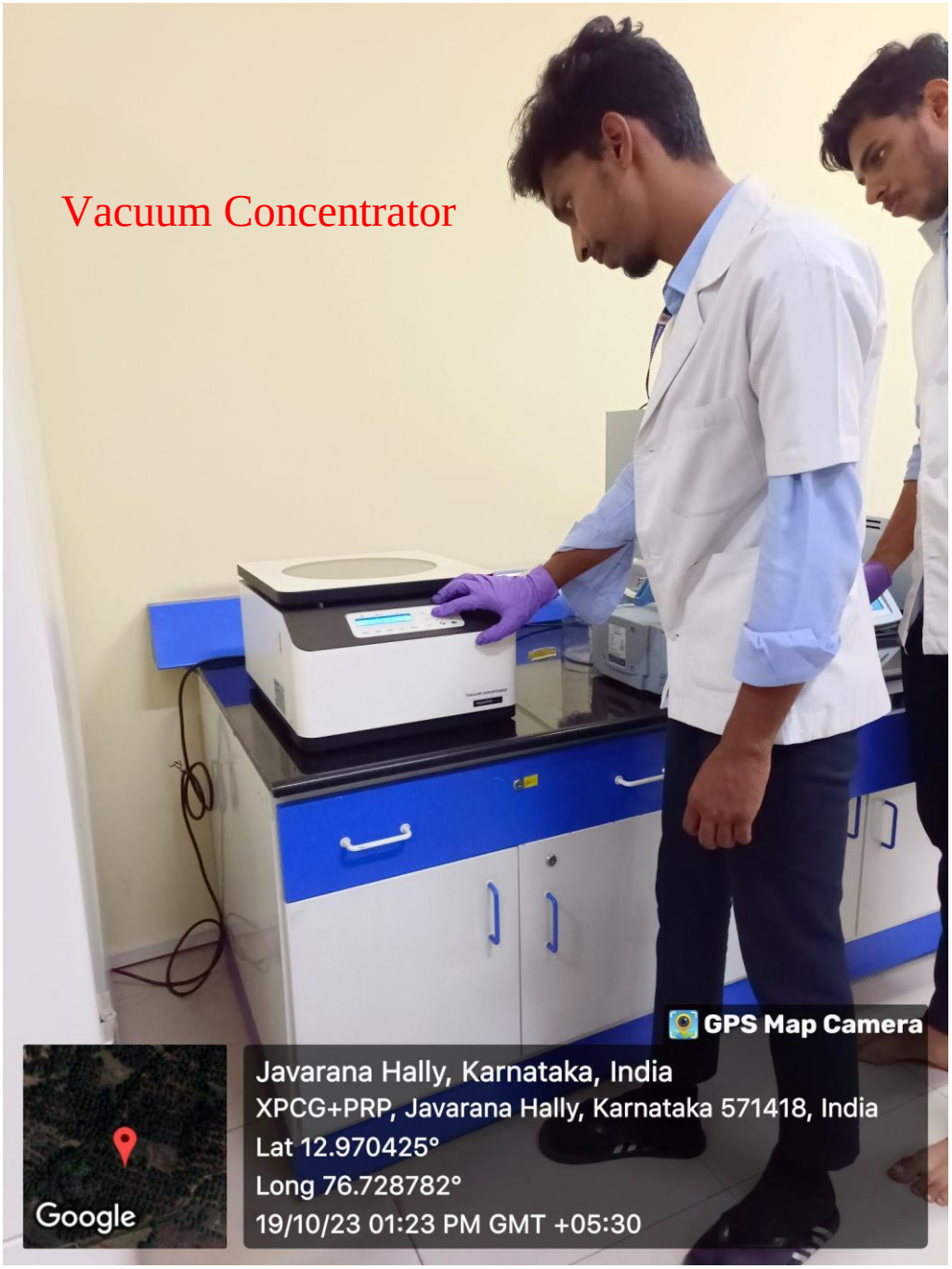
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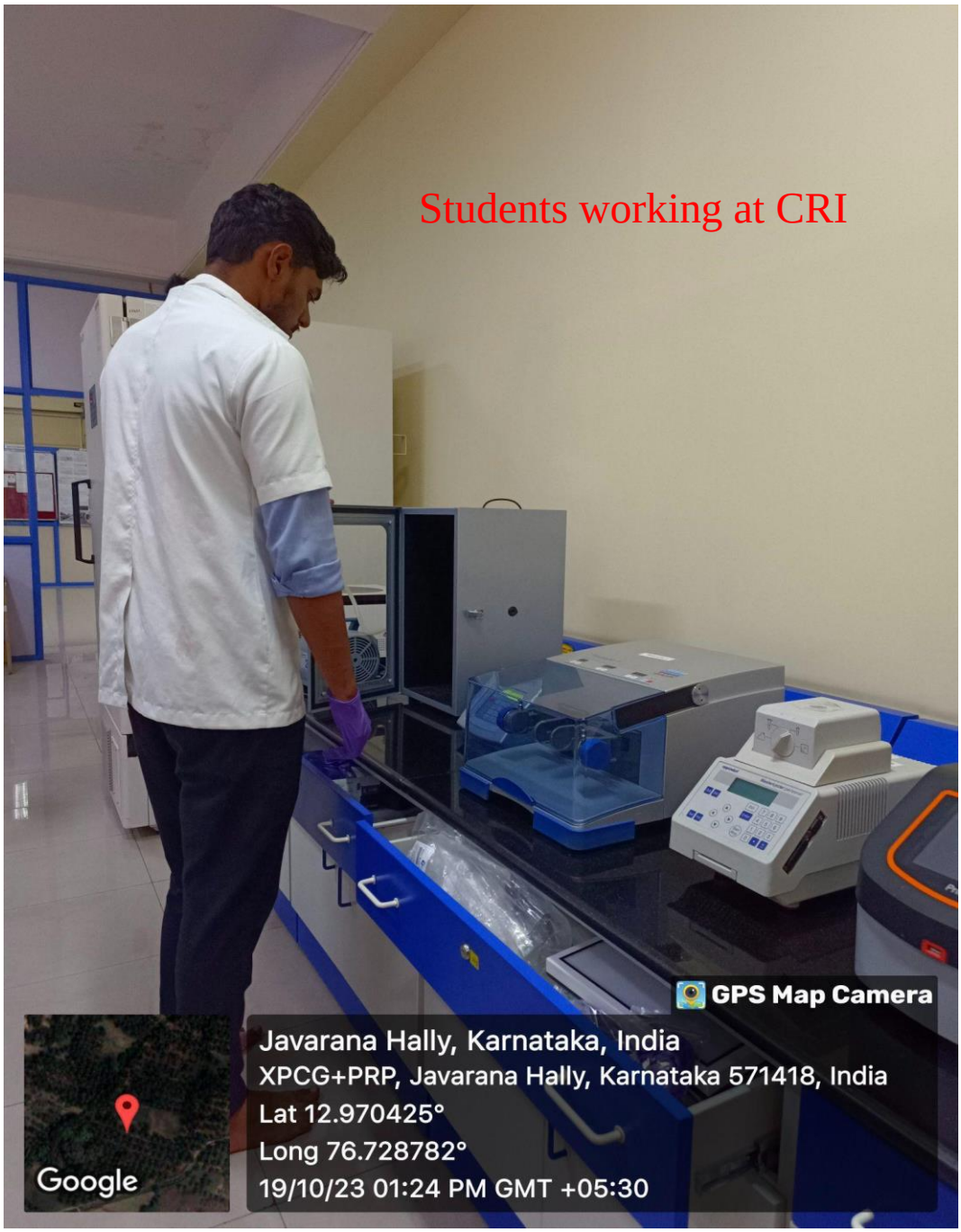
Students working at CRI
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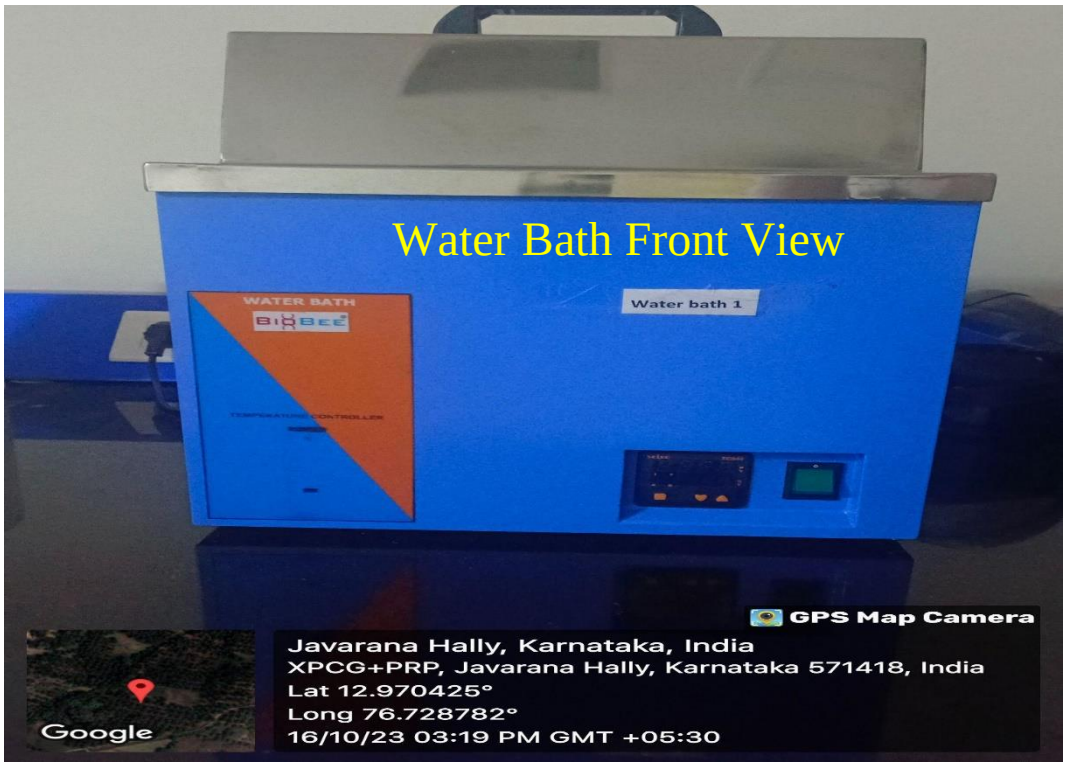
Refrigerated Centrifuge


Water Bath Front View
WATER BATH
Water bath 1
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Water Bath Rear View
Temperature controller Operating instructions
Water bath 2
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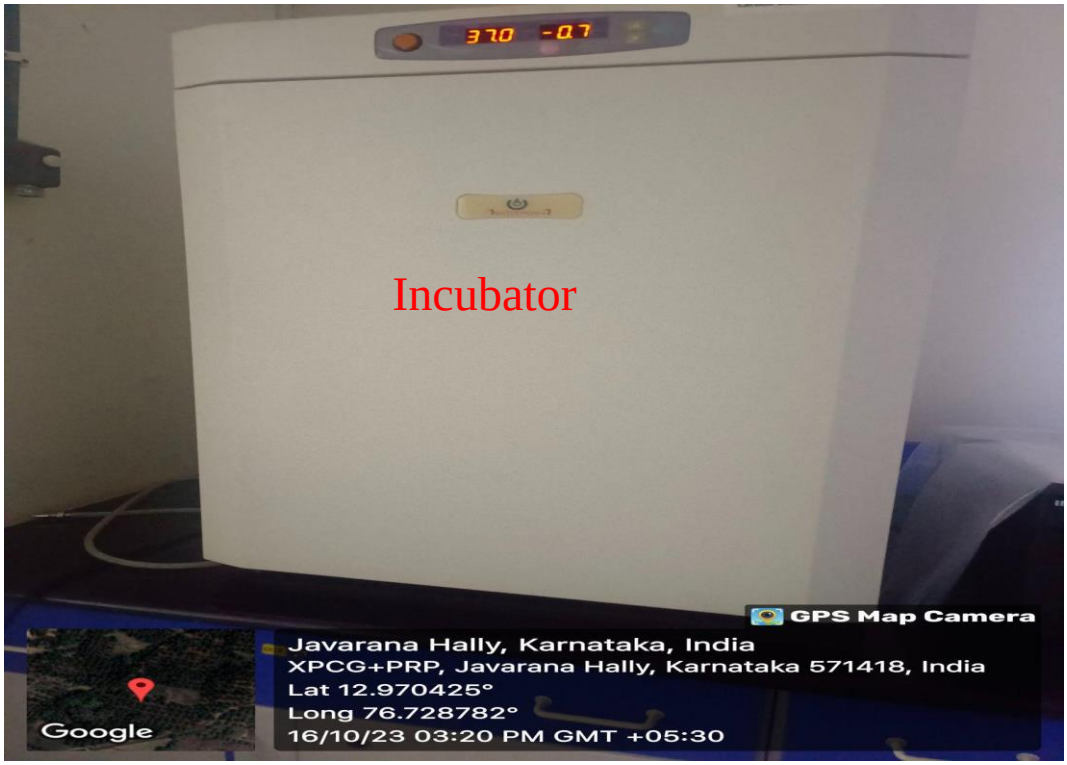
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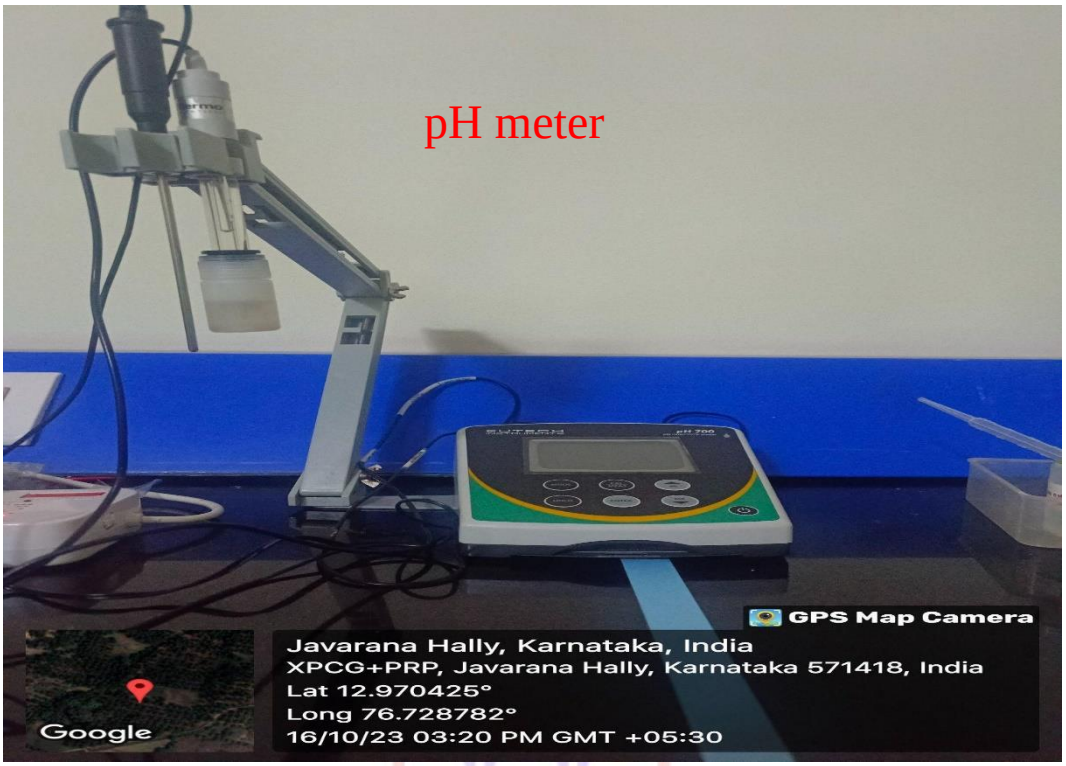
pH meter
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Thermal Cycler


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Super spin Centrifuge


BOD Incubator
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Laminar Flow Hood
LAMINAR FLOW HOOD
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