

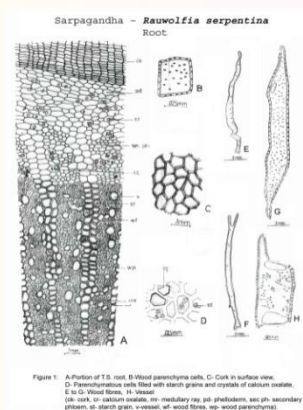
Department of Indian System of Medicine and Homoeopathy Himachal Pradesh

DRUG TESTING LABORATORY



Newly Constructed Block of DTL

Drug Testing Laboratory Joginder Nagar



**RESEARCH INSTITUTE IN INDIAN SYSTEM OF MEDICINE
JOGINDERNAGAR, DISTT. MANDI, (H.P.)-175015. Ph. No. : 01908 –
222092**

Drugs Analyzed During the Last Three Years

Information regarding the analysis of samples during the last three years at Drug Testing Laboratory Jogindernagar is as:

<i>Year</i>	<i>Single drugs</i>		<i>Compound drugs</i>		<i>Drug Control</i>	<i>HP civil Supply Corp. Ltd.</i>	<i>TOTAL</i>	<i>Revenue Generated Rs. In Lacs</i>
	<i>Govt. Ayurvedic Pharmacies</i>	<i>Private Pharmacies</i>	<i>Govt. Ayurvedic Pharmacies</i>	<i>Private Pharmacies</i>				
2013-14	35	06	121	558	371	166	1257	2.82
2014-15	11	-----	122	244	212	60	649	1.22
2015-16	111	-----	63	428	215	-----	817	4.28

No. of samples which do not comply with the Pharmacopeial / lab. Standards in the Year 2015-16 = 36

Targets for the years 2016-17:-

This laboratory will analyze all the samples which will be received for testing from different sources in the year 2016-17.

Availability of Machinery & Equipments and Additional Requirement with Justification:-

Details of major existing equipments/machineries

<i>Sr. No.</i>	<i>Name of the instrument</i>	<i>Quantity</i>
1.	Advanced Research Microscope	One
2	Refractrometer (digital)	One
3	Sieve Shaker	One
4	Electronic Balance	Two
5.	Dissolution rate test apparatus	One
6.	Ultra purification water system	One
7.	Muffle furnace.	Two
8.	HPTLC System	One unit
9.	A.C (1.5 Ton) for instrumental lab.	Two
10.	Tablet Disintegration System (digital)	One
12	Moisture Analyzer	One
13	Friability test unit (Digital)	One
14.	Atomic Absorption Spectrophotometer	One
15.	Hot Air Oven	One
16.	Vacuum Oven	One
17.	Melting Point Apparatus	One
18.	Water Bath	Three
19.	Clevenger Apparatus	Three
20.	Heating Mantle	Five
21.	TLC Chamber	Ten
22.	TLC Apparatus	One unit
23.	Soxhlet Apparatus	Four
24.	Distillation Apparatus	Five

Additional Equipment urgently required at Drug Testing Laboratory Jogindernagar

<i>Sr. No.</i>	<i>Name of the instrument</i>	<i>Qty</i>	<i>Specifications</i>	<i>App. Cost.</i>	<i>Justification</i>
1.	<i>Electronic Balance</i>	2	<i>1 mg – 220 gm</i>	<i>@ 1.80 lakhs = 1.80 lakhs</i>	<i>Laboratory balances are used to measure an object's mass to a very high degree of precision</i>
2	<i>Muffle furnace</i>	1	<i>Up to 1200 °C with Inner diameter 300x300x600 mm</i>	<i>2.15 lakhs</i>	<i>For determination of ash and for the ignition of herbal organic matter in the drug</i>
3	<i>Cyber scan pH meter 700</i>	1	<i>pH range 2.00 – 20.0 With pH electrode integral electrode and 100/240 VAC adapter</i>	<i>0.50 lakhs</i>	<i>Used for determination of pH</i>
4	<i>Hot Air Oven digital temp controlled</i>	1	<i>600 x 900 x 900 mm</i>	<i>@1.20 lakhs =1.20 lakhs</i>	
5	<i>Digital melting point apparatus</i>	1	<i>Temperature display :- Melting point and melting point range(0°C to 400 0°C) Temperature resolution -0.1 0°C Heat up time = 10 minutes (50 °C to 350 °C) Cool down time=10 minutes (350 °C to 50 °C)</i>	<i>1.70 lakhs</i>	<i>For determination of melting point</i>

Position of the Regular staff in the DTL Jogindernagar

<i>Sr. No.</i>	<i>Name & Designation</i>	<i>No of posts</i>	<i>Existing</i>	<i>Vacant</i>
I	Botanical Section / Pharmacognosy Section			
	Lab Assistant (Res.)	1	---	1
	Lab attendant	1	1	
II	Pharmaceutical chemistry/Chemistry			
	Pharmaceutical chemist	1	---	1
	Scientific Assistant	2	2	
	Lab Assistant (Res.)	1	1	-
	Lab Technician	1	1	
	Lab attendant	1	1	----
III	Microbiology/Toxicology	Nil		
IV	Instrumentation	Nil		
V	R & D / ISM	Nil		
VI	Office			
	Ministerial Staff	----		-----
	Class- IV	2		2 <i>One on deputation</i>
	Regular Beldar	----		1 (<i>From office of RIISM Jogindernagar</i>)
	Sweeper	1	-----	1

At present the no post of ministerial staff is existing at Drug testing laboratory Jogindernagar. The persons involved in the analysis work have to do the clerical work of the laboratory. The services of a clerk are urgently required at Drug Testing Laboratory. The post of Pharmaceutical Chemist is also lying vacant since 1999.

Available Sections of Drug Testing Laboratory JoginderNagar

Old block of Drug Testing Laboratory

Sr. No.	Name of the Laboratory / Section	Area in Sq. Ft.
Pharmacognosy Section:-		
	Pharmacognosy Laboratory	700
	Office	300
Chemistry Section:-		
	Chemistry Laboratory	700
	Office	300
Instrumental section: -		700
	Store	300
Verandah		656
Total Area:		3656 Sq. Ft. (Say 4000 sq. ft.)

New Block of Drug Testing Laboratory

<i>Sr. No.</i>	<i>Name of the Laboratory / Section</i>	<i>Area</i>
1.	Chemistry Lab.	6.0mx7.68m
2.	Microbiology lab	6.04 mx3.50m
3.	ISM&H Lab	6.0mx7.68m
4.	R & D Lab.	6.0mx7.68m
5.	Drug Store	2.70mx4.75m
6	Analyst Office	4.77mx3.95m
7.	Adm. Office	6.0x3.5m
8.	Chowkidar Room	2.40mx2.70m
	Toilet	1mx1.68m
	Kitchen	1.28mx1.68m
9.	Toilets: <i>Gents</i>	1.50x3.62m
	<i>Ladies</i>	1.50mx2.75m
10.	Veranda: Ground floor	1.55 m wide
	First floor	2.45 m wide
Total Area:		2370x2Sq.Ft. (Double Storey)

It is intimated that at present in the top floor labs of the new building are being utilized by COAPS Jogindernagar.

Requirement of Microbiology Laboratory At DTL Jogindernagar

The Drug Testing Laboratory (RIISM) Jogindernagar is analyzing the Ayurvedic drug samples as per the testing protocols mentioned in the Ayurvedic Pharmacopeia of India (API). At present no Microbiology section exists at Drug Testing Laboratory Jogindernagar which is mandatory required as per Drug and Cosmetics Act. The Pharmacognosy Laboratory at DTL is having sufficient area about 1000 Sq. ft. By partitioning the Pharmacognosy Laboratory, the Microbiology Laboratory can be established there. For this the amount mentioned below is required:-

<i>Sr. No.</i>	<i>Name of the work</i>
1.	Partitioning of Pharmacognosy laboratory (glazed Aluminum partitioning with AC)

Future Vision:-

Action Plan / Future plan for the Development of Drug Testing Laboratory

At present only two sections naming Chemistry and Pharmacognosy are working. However as per guidelines of the department of AYUSH and Drug & Cosmetic Act, the Microbiology laboratory with the Staff is required to be established at Drug Testing Laboratory Jogindernagar to detect the microbial limits. For the Pharmacognosy section post of botanist is needed to be created. For setting up the Microbiology laboratory and for the additional strengthening of existing laboratories at DTL Jogindernagar following instruments are required. Department of

AYUSH Govt. of India is providing sufficient financial assistance to the existing state Drug Testing Laboratories for the instruments and providing man power under the scheme NATIONAL AYUSH MISSION (NAM).

Equipment required at Drug Testing Laboratory Jogindernagar

List of equipments required for establishing Microbiology Laboratory:-

<i>Sr. No.</i>	<i>Name of the instrument</i>	<i>Qty.</i>	<i>Specifications</i>	<i>Justification</i>
1.	Laminar Air flow	1	2400 x 600 x 600 mm	Laminar air flows can maintain a working area devoid of contaminants.
2.	BOD Incubator	1	700x640x1100 mm (500 liter & 4 shelves) with LED display	B.O.D. Incubators are used to provide temperature conditions for Bio-Oxygen Demand test, cell / tissue culture / bacteria micro-organism culture application and other applications in the field of quality control.
3.	Hot Air Oven	1	600 x 900 x 900 mm	Hot air ovens are electrical devices used in sterilization.
4.	Electronic Balance	2	1 mg – 220 gm	Laboratory balances are used to measure an object's mass to a very high degree of precision
5.	Autoclave vertical double walled (stainless steel) 6 KW	1	450 x 600 mm (100 liter)	An autoclave is a pressure chamber used to Sterilization
6.	Deep Freezer vertical	1		Culture medium and analytical; chemical storage
7.	Microbial Culture racks with lighting system	3		Quality control
8	Air conditioner	2	1.5 ton x 2	For maintain culture room temperature

9	Electronic pipettes	2	1ul -10ul	Stock solution measurements and serial dilution etc.
10	Glassware	3		For inducing microbial cultures
11	Storage cabinets for laboratory garments	1	With UV provision	Disinfection
12	<i>Digital Colony counter</i>	<i>1</i>	L 260X B 220 X H 168 mm, dish size 110 mm, 4 digit display	Colony counters are used to estimate a liquid culture's density of microorganisms by counting individual colonies
13	<i>Fumigation instrument</i>	<i>1</i>		For fumigation

Equipment required at Drug Testing Laboratory Jogindernagar

List of equipments required for Chemistry Laboratory:-

Sr. No.	Name of the instrument	Qty.	Specifications	Justification
1.	<i>Electronic Balance</i>	2	<i>1 mg – 220 gm</i>	Laboratory balances are used to measure an object's mass to a very high degree of precision
2	<i>Gas chromatography</i>	1	<i>Fully automated microprocessor controlled GC , programmable pneumatic control, monitor for all carrier, injection, split vent detector and auxiliary gases electronically, auto shut down of instrument in case of leak, auto adjustment of carrier flow, FID etc.</i>	for <u>separating</u> and analyzing compounds that can be vaporized without <u>decomposition</u> . Typical uses of GC include testing the purity of a particular substance, or separating the different components of a mixture (the relative amounts of such components can also be determined). In some situations, GC may help in identifying a compound.
3	<i>Muffle furnace</i>	1	<i>Up to 1200 °C with Inner diameter 300x300x600 mm</i>	<i>For determination of ash and for the ignition of herbal organic matter in the drug</i>
4	<i>Hot Air Oven</i>	2	<i>600 x 900 x 900 mm</i>	Hot air ovens are electrical devices used multipurpose in the laboratory.
5	<i>Cyber scan pH meter 700</i>	1	<i>pH range 2.00 – 20.0 With pH electrode integral electrode and 100/240 VAC adapter</i>	Used for determination of pH
6	<i>Digital melting point apparatus</i>	1	Temperature display :- Melting point and melting point range(0°C to 400 0°C) Temperature resolution -0.1 0°C Heat up time = 10 minutes (50 °C to 350 °C) Cool down time=10 minutes (350 °C to 50 °C)	For determination of melting point
7	<i>Digital Refractometer (High resolution)</i>	1	<i>For Refractive index (1.33 – 1.53) & Brix (0-100 brix)</i>	For determination of RI and sucrose %
8	<i>Water bath</i>	2	<i>12 holes with thermostatic controlled</i>	Multipurpose use in the Lab.

9.	<i>Fuming Hood</i>	1	1800x750x1200 mm	Fume hoods are used for most efficient automatic bypass airflow to the suction system. Rigidity and better protection from chemical fumes.
10.	<i>Rotary Flask Shaker variable speed</i>		platform size 180X180 CM, stainless steel	For solubility and for other purposes
11	<i>Hot Plate rectangular</i>	2	450 x 600 mm	Multipurpose use in the Lab.
12.	<i>Moisture analyzer</i>	1	Capacity (g)81, Heater type Halogen, Housing dimensions, (VAC) 115, Readability-1 mg, Repeatability - 0.15% (2 g sample) Temperature range (° C) (low)40, Temperature range (° C) (high) 200 Timer (min)1 to 480 Pan size (" Dia)3.625	For determination of Moisture content.
13.	<i>Electric motor pestle</i>	1	100mm dia.	For grinding
14.	<i>Heating mental</i>	12	250ml, 500ml, 1000ml, 2000ml, 3000ml, 5000ml	Multipurpose use in the Lab.
15.	<i>Centrifugal machine</i>	1	Microprocessor controlled	For use in laboratory
16	<i>Pipette filler</i>	1	0.1ml – 100 ml	Laboratory use
17	<i>TLC sprayer</i>	1	Containing acid proof bottles	For spraying TLC plates

Equipment required at Drug Testing Laboratory Jogindernagar

List of equipments required for Pharmacognosy Laboratory:-

Sr. No.	Name of the instrument	Qty.	Specifications	Justification
1.	<i>Stereo zoom Trinocular Microscope</i>	1	<i>Incident and transmitted LED illumination upper lamp-3W ,Lower Lamp- 6W Eyepiece WF10x/22,Zoom objectives0.8 x -5X</i>	<i>For microscopy purpose in Pharmacognosy laboratory</i>
2.	<i>Fully automatic imported Rotary Microtome</i>	1	Technical Specifications: Range of section thickness setting:0.5-100 μm 0.5-2μm increment 0.5μm,2-10μm increment 1μm,10-20μm increment 2μm,20-100μm increment 5μm,Range of trimming setting: 1-600μm 1-10μm increment 1μm,10-20μm increment 2μm,20-100μm increment 10μm, Specimen horizontal feeding:26mm, Maximum stroke length:60mm,Range of specimen, retraction :20μm,Specimen clamp can be 360°turned, Minimum setting thickness of slice:0.5μm,Maximum size of slicing:50 x 50mm,Precision error:±10% Voltage: AC220V 50Hz or 110V 60HzPower: 150VA Disposable-blade holder can be used for low & high profile disposable blade	<i>For section cutting in Pharmacognosy laboratory</i>
3	<i>Electronic Balance</i>	1	<i>1 mg – 220 gm</i>	<i>Laboratory balances are used to measure an object's mass to a very high degree of precision</i>

Agenda for administrative meeting:-

1. Financial position

S. No.	Name of Scheme	Amount received with date	Physical Progress	Financial Progress	Probable date of completion/ utilization	Reason for achievement	Remarks
1	Strengthening of Drug Testing Laboratory	56.24lacs. (23/04/2001) 19.55 lacs. (26/03/2002) 24.21lacs. (07/03/2005)	Total allotted funds i.e.Rs. One Crore+ Rs.10,34,341/- (interest) have been utilized	Total Grant UCs submitted to GOI Deptt. Of AYUSH.	Utilized		
2.	Development of Standard Operating Procedures of SMPs	1.30 lacs. (31/03/2003) 6.70lacs. (31/10/2003)	Total allotted funds i.e Rs. 8.00 lacs.have been utilized .	Total Grant UCs submitted to GOI Deptt. Of AYUSH.	Utilized		

2. Legal Status :- Information pertains to the office of RIISM Jogindernagar being establishment of DTL .
3. Constituency wise Status of Ayurvedic Health Institutions :- Not applicable
4. Staff Position: - Information pertains to the office of RIISM Jogindernagar being establishment of DTL ..
5. Inspections:- Not applicable
6. Weeding out of record /writing off unreasonable store articles and physical verification of stores and detail thereof.
7. Status of Medicine and Raw herbs: - Not applicable.
8. Rogi Kalyan Samitis :- Not applicable
9. Trainings:-

S.N.	Name of the Official	Detail of trainings attended with period /Duration	Requirement	Remarks
1.	Sh. Vipin Kumar, Sharma Scientific Assistant	One week	On Quality control	

2.	Miss Kamla, Scientific Assistant	Four days	On Quality control	
3.	Sh. Sushil Thakur Lab. Tech.	Four days	On Quality control	

10. Pending issues with the Directorate /Govt.:-
- i) Regarding purchase of Glassware /Equipment for DTL Jogindernagar.
 - ii) Regarding distributions of 20% of testing fee among the Lab. Staff.
 - iii) Regarding convening the meeting of Governing Body of the DTLD Society Jogindernagar.
11. Departmental Inquiry Status: - Information pertains to the office of RIISM Jogindernagar being establishment of DTL.
12. Status of Government Vehicles and Taxi: - Information pertains to the office of RIISM Jogindernagar.
13. Audit Paras :- Two audit paras
- i) Non utilization of interest incurred from the grant received under SOP Project. (Rs.99636 /- at present)
 - ii) Testing fee of samples received in 2014-15 deposited in society account without govt. permission.
14. RTI Cases: - information supplied well in time to the quarters concerned.
15. E- Governence, PMIS, e-Samadhan:-Information pertains to the office of RIISM being establishment of DTL Jogindernagar.
16. Status of RSBY/MMHCS:- Not applicable
17. Hon'ble Chief Minister's announcements: - Information pertains to the office of RIISM Jogindernagar being establishment of DTL.
18. District Map with location: - Not applicable.
19. Status of Herbal Gardens:-Not applicable.
20. Status of Pharmacies: - Not Applicable.
21. Status of Colleges: - Not Applicable.
22. Annual Maintenance contracts of machinery /equipments: No AMC exists at present at DTL.
23. Status of Annual performance and assessment reports.
24. Future action plan: Attached