

PHARMACEUTICS DEPARTMENT

The following services are rendered to the other organizations/institutes

| Sr. No. | Name of Equipment/ Instrument |
|---------|---|
| 1. | High Shear Homogenizer (T-10, T-25) |
| 2. | Probe sonicator |
| 3. | Spray Dryer |
| 4. | Freeze Dryer (Lyophilizer) |
| 5. | Brookfield Viscometer |
| 6. | Texture Analyzer |
| 7. | Film Former |
| 8. | Thermolab Stability Chamber* (Accelerated Stability Studies) |
| 9. | Fluid Bed Processor |
| 10. | Extruder spheronizer |
| 11. | Particle size (Horiba) |
| 12. | Zeta Potential |
| 13. | Antimicrobial study* |

*As per set procedure

Specialized Services

FORMULATION DEVELOPMENT

PREFORMULATION STUDIES

For Details Contact

researchatmcp@gmail.com

DEPARTMENT OF PHARMACOGNOSY

| Tests | |
|---|--------------------------|
| Preliminary Phytochemical Analysis | |
| 1 | Carbohydrates |
| 2 | Reducing sugars |
| 3 | Monosaccharide |
| 4 | Pentose sugars |
| 5 | Hexose sugars |
| 6 | Non-reducing sugars |
| 7 | Starch |
| 8 | Gums |
| 9 | Mucilage |
| 10 | Proteins |
| 11 | Amino acids |
| 12 | Fats & Oils |
| 13 | Steroids |
| 14 | Volatile oils |
| 15 | Glycosides |
| a | Cardiac glycosides |
| b | Anthraquinone glycosides |
| c | Saponin glycosides |
| d | Cynogenetic glycosides |
| c | Coumarins glycosides |
| 16 | Flavonoids |
| 17 | Alkaloids |
| 18 | Tannins & Phenols |
| 19 | Enzymes |
| | a Oxidase |
| | b Peroxidase |
| | c Catalase |
| | d Dehydrogenase |
| 20 | Organic acids |
| | a Oxalic acid |
| | b Tartaric acid |
| | c Citric acid |
| | d Malic acid |
| Free radical Scavenging assay | |
| 1 | DPPH |
| 2 | Superoxide ion |

| | |
|-----------------------------------|---|
| 3 | Ferrous ion |
| Proximate Analysis | |
| 1 | Ash Values |
| | a Total Ash |
| | b Acid insoluble ash |
| | c Water soluble ash |
| | d Sulphated ash |
| 2 | Foreign organic matter (whole drug) |
| 3 | Determination of Loss on Drying |
| 4 | Extractive values |
| | a Alcohol soluble matter |
| | b Water soluble matter |
| | c Petroleum ether soluble matter |
| 5 | Swelling index |
| 6 | Foaming index |
| 7 | Powder fineness (According to sieve size) |
| 8 | Particle Size Analysis (Microscopy) |
| 9 | Macroscopy |
| 10 | Thin layer Chromatography (TLC) |
| 11 | Determination of Water |
| 12 | Determination of Essential oil |
| 13 | Determination of Fixed oil |
| 14 | Bitterness value |
| 15 | Haemolytic activity |
| 16 | Determination of tannins |
| 17 | Length & Width of Fibers |
| 18 | Determination of crude fiber |
| Solvent Extraction | |
| 1 | Cold maceration |
| 2 | Soxhlet extraction |
| 3 | Decoction |
| Microscopy & Histology | |
| 1 | Transverse/Longitudinal section cutting |
| 2 | T.S./L.S. along with image (soft copy) |
| 3 | T.S./L.S. along with image analysis |
| 4 | Stomatal index & number |
| 5 | Palisade ratio |
| 6 | Vein-islet number |
| 7 | Vein-termination number |
| 8 | Permanent slide |

| | |
|--|--|
| 9 | Powder microscopy |
| Authentication of whole plant | |
| Preparation of Herbarium | |
| Evaluation of Ayurvedic Formulation | |
| 1 | pH |
| 2 | Refractive index |
| 3 | Specific gravity |
| 4 | Fineness of Particle |
| 5 | Disintegration test |
| 6 | Uniformity of weight |
| 7 | Total solids |
| 8 | Loss on drying (vacuum oven method) |
| 9 | Loss on drying (110 °C) |
| 10 | Fat content |
| 11 | Volatile oil content |
| 12 | Acid value |
| 13 | Saponification value |
| 14 | Iodine value |
| 15 | Alcohol content (without volatile matter) |
| 16 | Alcohol content (with volatile matter) |
| Isolation of Phytoconstituents | |
| Purification of Phytoconstituents | |
| Evaluation of Phytoconstituents | |
| 1 | Melting point/Boiling point |
| 2 | Optical rotation |
| 3 | Solubility |
| 4 | UV spectroscopic analysis (qualitative) |
| 5 | UV spectroscopic analysis (quantitative) |
| 6 | FTIR analysis & interpretation |
| Evaluation of Skin & Hair cosmetics | |
| Content determination | |
| 1 | Total Phenol content |
| 2 | Total flavonoid content |
| 3 | Total alkaloid content |
| 4 | Catechin content |
| 5 | <i>In vitro</i> α -glucosidase inhibition assay |
| 6 | Detection of adulterants in oil |
| 7 | Weighing of sample (10 mg sensitivity) |

Contact Details:

Dr. B. P. Pimple

Head, Department of Pharmacognosy,

Progressive Education Society's

Modern College of Pharmacy

Sector 21, Yamunanagar, Nigdi, Pune - 411044

Cell: 09970830030;

Office: (020) 27661315 / 14

✉ **E-mail:** pimplebhushan@yahoo.co.in