

तस्मात् शास्त्रं प्रमाणं ते

**ARL**

Aum Research Laboratories





# About us

**AUM Research Laboratories (ARL)** is FDA Approved and ISO 9001:2008 Certified Public Testing Laboratory with compliance of Requirements given in Schedule L1 and GLP guidelines.

ARL established on 19 Oct 2010, and successfully achieved good heights and trust in all customers by providing various services to Pharmaceutical, Nutraceutical and Herbal Drug Industries.

## Vision

To be the most preferred global pharmaceutical, nutraceutical and herbal research organization based on our scientific expertise, quality of services, state-of-the-art facilities, compliance to meet all regulatory requirements, integrity and customer satisfaction.

## Mission Statement

तद्विना शक्यं प्रमाणं ते is a verse from Srimad Bhagavad Gita with a meaning that all the things must be carried out as per the Shastra (Science) or things must be verified based on science . Thus at ARL, we are committed to work in an accord of science.



# Our strength

- Well equipped Laboratories with all modern analytical instruments.
- Well qualified, energetic and young team.
- Wide range of experience in variety of fields.
- Single point solution for all technical services in field of Pharmaceutical and Herbal Drug Research.
- Customer friendly environment.



# Area of work

## **ARL is engaged in following activities**

- Analytical Testing of Pharmaceuticals, Neutraceutical, Chemicals and Agriculture Products.
- Analytical Method Development and Validation.
- Formulation Development and Stability Studies.
- Herbal drug standardization and regulatory dossier preparations.
- Herbal Reference Standard Isolation and supply of pure Reference Standards.
- Herbal Research and Phytochemical Investigation.
- Patent, Copyright and Trademark Filling.



# Analytical testing

## Physicochemical Section

- Testing of API, Finished products, excipients can be tested as per latest Pharmacopoeia (USP, BP, EP, IP, JP)
- Testing of products which are not official in any compendia
- Multi ingredient formulation analysis.
- Analysis of herbal drug, raw materials, extracts and formulations
- Organic Volatile Impurities and Residual Solvents
- Elemental analysis from trace level to higher concentrations.
- Testing of Chemicals, Intermediates, Agriculture products, pesticides etc.



# Facilities available for Physicochemical Section

- HPLCs with Autosampler, UV, PDA & RI Detector
- FTIR,
- GC
- UV Spectrophotometer
- Atomic Emission Spectrophotometer
- Water purification system
- Karl fisher Titrator
- Auto titrator
- Analytical Balance
- Ultrasonicator
- Brookfield Viscometer
- Dissolution apparatus
- Disintegration apparatus
- Vacuum oven,
- Refractometer,
- Polarimeter,
- pH meter,
- Conductometer
- Muffle furnace,
- Hot air oven,
- Heating mental
- Centrifuge
- Waterbath







# Analytical testing

## Microbiological testing and research

- Work carried out (As per Harmonized and IP method)
- TAMC & TYMC
- Selective identification of pathogens
- Sterility testing
- Bioassay
- Biological testing of water
- BET/ LAL test by gel clot method
- Biological testing of probiotics and herbal products
- MPN test
- Validations of sterility, MLT and BET
- Preservative Efficacy test

## Facilities available for Microbiology Section

- Horizontal LAF
- Vertical Biosafe cabinet
- Colony counter
- Microscope
- Anaerobic jar
- Heating block
- Vertical autoclaves
- BOD incubators







# Analytical Method

## Development and Validation

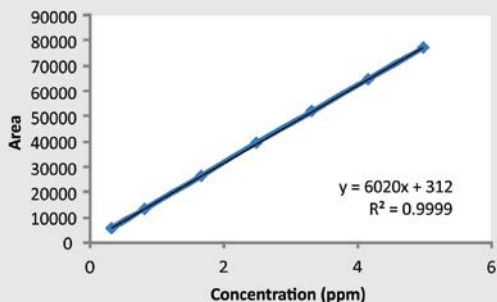
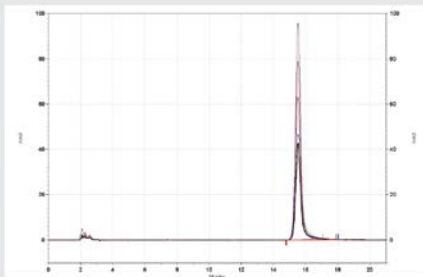
Development and Validation of Analytical Methods in compliance with ICH, USP, IP and Regulatory Requirements For....

### Product

- API ( Active Pharmaceutical Ingredient).
- Formulation ( Tablet, Capsule, Injection, Syrup Containing Single as well as Multiple Ingredient.
- Cleaning Validation
- Disinfectants

### Method

- Assay, Related Substance, Residual Solvents, Dissolution Studies etc. by HPLC, GC, UV, Chemical, AAS etc.
- Microbial Assay and Limit test
- Sterility Testing
- Preservative effectiveness test.







# Formulation Development Activities



- ARL carried out formulation development activity....
- Complete literature and patent status information.
- Preformulation and compatibility study.
- We have expertise in formulations like.
  - Tablet - Immediate Release, Modified Release, Effervescent Tablet.
  - Capsule - Pellets, Granules, Tablet containing Capsule.
  - Oral liquids - Syrup, Suspension, Emulsion, Solution.
  - Semisolids - Cream, Ointment, Gel.
  - In-situ Gel , Nanosystems etc.
- Herbal formulation development.
- Complete documentation in CTD format including product development report.
- Real time and accelerated stability study as per ICH guidelines.

## Equipments available

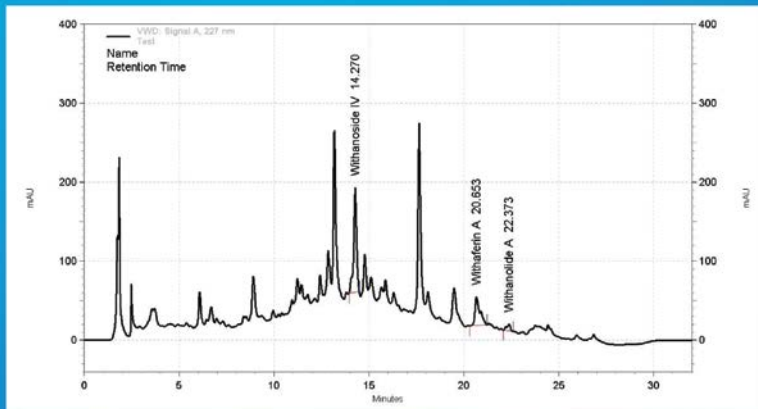
- |                                     |                            |
|-------------------------------------|----------------------------|
| - Rotary tablet compression machine | - Dissolution apparatus    |
| - Tablet coating machine            | - Hardness tester          |
| - Spray dryer                       | - Friability tester        |
| - Tray dryer                        | - Mass mixer               |
| - Multi mill                        | - Capsule filling machine  |
| - Colloidal mill                    | - Mechanical stirrer       |
|                                     | - Disintegration apparatus |



# Natural Product Research

Herbal Reference Standards isolation,  
characterization and supply.

- Isolation of novel phyto-compounds, structure elucidation and characterization
- Isolation of herbal reference standard/ Biomarkers with high purity and supply with supportive data.





# Standardization Of Herbal Formulation

## Challenges

How to define standardization parameter?

We have competent team with scientific knowledge to tackle problems in herbal product standardization.

How to define quality of extracts / formulation?

We are isolating herbal reference standards to evaluate (By HPLC, TLC, GC etc.) the quality of extracts / Formulations.

We are analyzing different parameters like Alkaloids, Flavonoids, Phenolics etc to determine its efficacy.

How to identify Adultration / Substitution / Substandard quality of Herbal Extracts / Raw Materials?

We are analyzing quality parameters like TLC/HPLC/ Chemical Analysis to differentiate Adultration/ Substitution/ Substandard quality of Herbal Extracts/ Raw Materials.

How to achieve the range of acceptance criteria of different regulatory bodies?

We can develop standardization data in scientific way to show its efficacy during its shelf life as well as stability study of marker compound.  
we are evaluating heavy metals as well as microbial contamination in Herbal Extracts / Formulations.

## Solutions





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