

Nexus of Expertise: Herbal

Analysis:

Genetic lab

DNA barcode, seq
Forest forensic/ timber tracking
Genotyping
Plant dna/rna extraction
Detection of Porcine DNA
Microbe test
Chemical profiling of bioactive compound (eg: eurycomanone detection)
Species Identification / DNA coding for export of fresh produce (meat & aquaculture)

Phytochemistry

Phytochemical screening test
Spectroscopic analysis (NMR,LC-MS,FTIR)
Eurycomanone analysis
HPLC and HPTLC
Authentication & verification
Heavy Metal test
Chemical profiling/ phytochemistry
Isolation & purification of compounds
Product formulation
Drying & grinding of raw material
Concentration
Extraction
Spray drying & Freeze drying
Capsulation and tablet process of traditional medicine

Pharmacognosy

Antioxidant
Anti-diabetic
Anti-inflammatory
Anti-microbial
Toxicity (in vitro): antimicrobial test, anti-cancer, anti-cholesterol, bacterial identification
Skin lightening property
GLP cytotoxicity
Carcinogenic, mutagenic & teratogenic studies
(animal trials)
Antibiotics & hormones Detection
Steroids Detection

Product development

Essential oil: distillation/SFE, moisture content, chemical analysis (GC, GCMS, HS/SPME)
Agarwood analysis: extractive content, chemical analysis, electronic nose, agarwood resin-image screening
Microbial contamination
Heavy metal/ limit test
Physical testing (moisture, disintegration, stability, weight uniformity)
Cosmeceutical/ nutraceutical formulation