



# SS INSTITUTE OF PHARMACY

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2	Review on Scope of Pharmacognosy graduate in various government research institute in India	T.Sampath kumar	Pharmacognosy	The Journal of Phytopharmacology	2020-2021	2320-480X



  
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### Review Article

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### Review on Scope of Pharmacognosy graduate in various government research institute in India

S Muthuraj, MK Seeni, P Muthusamy, T Sampathkumar

#### ABSTRACT

The Pharmacognosy is study of crude drugs, the role of Pharmacognosist difference based on the research institute. In India lot of research of institute available for development of herbal and traditional based drugs such as phytopharmaceutical, chemistry of natural products and siddha, Ayurveda, Unnai propriety drugs. The graduate from Pharmacognosy have lot of carrier opportunities and temporary project Positions such as JRF, Project associate in various research institute such as CSIR-CDRI, CIAMP, IIIM, IHBT NBRI. The another very important scope of Pharmacognosist in AYUSH Department, the ministry of ayush established various research lab for development Ayurveda, siddha, unani, and hemopathy medicine they are like CCRAS, CCRS, CCRH, CCRUM. The role of Pharmacognosist in ayush institute such as authentication and standardization of raw drugs and formulated crude drugs as churna, chooranam etc. Indian pharmacopeia laboratory also a very important carrier opportunites for pharmacognosy graduate.

**Keywords:** Pharmacognosy, AYUSH, Phytopharmaceuticals, Crude drugs, Medicinal plants.

#### INTRODUCTION

Pharmacognosy is a significant part of drug store that incorporates the logical investigation of underlying, physical, compound, biochemical, and organic properties of unrefined medications and quest for new medications from plant, creature, and mineral sources. It was presented and utilized interestingly by J. A. Schmidt (1811) and C. A. Seydler (1815), individually, to characterize the part of medication or item which manages rough medications. It is the study of nature-inferred drugs and remembers reads for primary, physical, synthetic, organic characters of unrefined medications their remedial use, history, strategy for development, assortment, readiness, safeguarding, and trade [1]. Modern Pharmacognosy involves the broad study of natural products from various sources including plants, bacteria, fungi, and marine organisms [2]. This study acts as an important link between pharmacology and medicinal chemistry which also plays a vital role between tradatonal and allopathic systems of medicines. Organic science incorporates the recognizable proof (scientific categorization), hereditary qualities, and development of plants. Synthetic portrayal of incorporates the seclusion, ID and evaluation of constituents in plant materials [3]. Switch pharmacognosy is utilized to discover new organic focuses for regular mixtures by virtual or genuine screening and distinguish normal assets that contain the dynamic atoms. Turn around pharmacognosy and its converse mooring segment can't just be incorporated into a program for new lead disclosure but on the other hand is a helpful way to deal with discover new applications for recognized compounds [4]. Results of all, pharmacognosy research regions are proceeding to grow, and now remember parts of cell and sub-atomic science for connection to normal items, ethnobotany and phytotherapy, notwithstanding the more customary insightful strategy improvement and Phytochemistry [5]. Larger part of members accept there is parcel of extension to investigate the Complementary and Alternative Medicine (CAM), investigation of which can become principle branch in future. Adaptable nature of the subject has really assisted with advancing the control. Interdisciplinary nature of subject ought to be kept as such to oblige more up to date drifts, which thusly hurry further turn of events [6]. Recent years in India the Pharmacognosy field is well developed in various interdisciplinary drug discovery research institute and public health related Indian system of medicine hospitals such as siddha, ayurvedha, unani and homeopathy. In this review paper mainly focused on job opportunities in the various interdisciplinary research institute and nature of them work.

#### Carrier Scope of Pharmacognosy Graduate in Council of Scientific and Industrial Research Institute (CSIR)

The Council for Scientific and Industrial Research (CSIR) is a modern research and development organization known for its latest knowledge base in research and development in various scientific and technological fields. CSIR has a history of 65 years and was designed by Dr. Bhatnagar to meet the challenge of time. Want to build a new CSIR to meet the needs of modern India. CSIR is spread all over



266  
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### Formulation and Evaluation of in vitro antidiabetic Polyherbal tablets form some traditional used Herbs

T. Sampath Kumar\*, P. Muthusamy, R. Radha, K. Ilango

#### ABSTRACT

The main objective of the project is to formulate and evaluate poly herbal anti diabetic tablet. Polyherbal antidiabetic formulation consists of six herbs viz., *Nigella sativa* (seed), *Moringa oleifera* (seed), *Linum usitatissimum* (seed), *Trigonella foenum*(seed), *Cinnamum zeylanicum* (bark) and *Macrotyloma uniflorum* (seed). Nine preliminary clumps of tablets were defined by fluctuating the organization off the excipient's extents for phenomenal stream property. The mixed powder of each of the nine preliminary groups were investigated for its stream attributes like mass thickness, tapped thickness, compressibility file, Hausner's proportion and Angle of rest. Absolutely nine preliminaries of plan were completed utilizing various decisions of excipients thinking about various realities of assembling issues just as quality deformities as a top priority. Every one of the resultant plans were assessed for their stream property, consistency of filling, consistency of weight, dampness substance and breaking down time. The dried polyherbal remove was streamlined for its quality measures and its cluster consistency by making nine diverse preliminary clumps (Trial 1,2,3,4,5,6,7,8,9). The preliminaries were exposed to preformulation boundaries to affirm the consistency and quality. The outcome presumes that the preliminary 9 was amazing in all boundaries and the qualities were found inside as far as possible and it was utilized for detail Polyherbal Tablet. The developed polyherbal Phytochemical study showed the presence of flavonoids in this formulation flavonoids, tannins phenolic compounds are by using qualitative phytochemicals analysis. The poly herbal tablets and extracts are subjected in to HPTLC analysis estimation of Quercetin and rutin. This may be responsible for the potent anti-diabetic activity. The in vitro antidiabetic activity of tablets was evaluated by glucose uptake assay by using 3T3 Cell line. Further investigations are suggested for solidness concentrates in the detailed polyherbal tablet and furthermore clinical preliminaries need to act in future in Human Volunteers.

**Keywords:** Glucose uptake assay, 3T3 L1 Cell line, Anti Diabetic Tablet, Quercetin, Rutin, HPTLC.

#### INTRODUCTION

A natural equation comprises of a particular mix of individual home-grown fixings that are formed for a particular infirmity or gathering of illness conditions. At the point when spices are consolidated together, they become more strong and compelling inside the body than single spice because of their initiating or catalyzing impact upon each other. As per WHO, Diabetes Mellitus is defined as heterogeneous metabolic disorder characterised by common feature of chronic hyperglycemia with disturbance of carbohydrate, protein and fat metabolism. Tablets are defined as solid preparations intended for oral administration, each containing a single dose of one or more active ingredients. Tablets are prepared by compaction and contain drugs and formulation additives.

#### MATERIALS AND METHODS

##### Collection of plant extract

The following plant extract bought from traders, *Trigonella foenum*(fenugreek, seed), *Moringa oleifera* (seed), *Nigella sativa* (seed), *Linum usitatissimum* (Flax seed), *Cinnamum zeylanicum* (bark) and *Macrotyloma uniflorum* (horse seed).

##### Preliminary Phytochemical Analysis of Extract

The Following Seed Extracts Are *Nigella sativa* (seed), *Moringa oleifera* (seed), *Linum usitatissimum* (seed), *Trigonella foenum*(seed), *Cinnamum zeylanicum* (bark) and *Macrotyloma uniflorum* (seed). Subjected to Preliminary Phytochemical Screening for Detection of the Secondary Metabolites and Primary Metabolite<sup>[9-10]</sup>.



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