Summary of Minor Research Project

Nature product is a chemical compounds or substance produced by living organism found in nature that usually has pharmacological or biological activity for use in pharmaceutical drugs discovery and drugs design. The goal of the Drug Discovery and Development Programe is to discover single entity and multicomponent bioactive natural products that may serve as leads for the development of new pharmaceuticals that address unmet therapeutic needs. Emphasis is on agent that control certain infectious diseases, cancer and immune disorders. Chemical constitutes responsible for biological effects are identified and then either isolated and purified in the search for new single entity pharmaceutical ingredients or characterized and standardized in the search for new multicomponent botanical products.

Throughout history, mankind has always been interested in naturally occurring compounds from prebiotic, microbial, plants and animals sources. Various extracts of flowers, plants and insects have been used for isolating compounds whose task, color and odor could be used for various purposes. Many natural products, such as plants hormones, have a regulatory role, while others function as chemical defence against pests. The role of certain compounds is to act as chemical messengers, such as sex-attractants (pheromones) in insects, terrestrial and marine animals and humans.

Plants are natures “chemical factories” providing richest source of organic chemical on the earth. Most of the medicinal plants from this forest are used in traditional medicine to cure various sicknesses and diseases. The indigenous system of medicine namely Ayurveda, Unani and Siddha have been in existence in several centuries. These systems of medicine cater to the need of nearly seventy percent of our population residing in the villages. In Homeopathy system, 80% of the medicines are prepared from plants. Nature has bestowed on us a very rich botanical wealth and large number of diverse type of plants grow wild in different part of country. India is a country rich in indigenous herbal resources which grow on their varied topography and under changing agro climate condition permitting the growth of almost 20,000 plants are of medicinal value. In Indian scenario, it has been recognized that 25, 00 plants have been found to be have medicinal value out of 17,000 plants. The world is looking toward India for new drugs to manage various challenging diseases because of its rich biodiversity of medicinal plants and abundance of traditional knowledge such as Sibbha, Ayurveda etc., to cure different diseases. Allapali forest region in (MS) India possesses vast array of plants. This forest found to contain vast number of medicinal plants and local people are utilizing these medicinal plants since year ago.

The study is aimed at investigating phytochemical screening of some plants from Allapali district(Gadchiroli) forest (MS) India. The plants species taken in present study are used in traditional medicine by local people since long. Leaf juice of Gardenia gummifera(Dikamali)is used to cure cough, asthama, wounds teeth by the rural people. Leaf of Acacia catechu (Khair) is used to cure diarrhea, wounds Urinary complaints Khair tree is very useful in the dental problems. It gives relief in dry cough. It is also given in stomatis, Anaemia, Leprosy, Bronchitis, Pruritus, Diarrhoea, Polyuria.

The present work was carried out at Department of chemistry, N. S. Sc.& Arts College, Bhadrawati, Dist. Chandrapur. The plant named Artocapus Integra, Acacia catechu, Gardenia turgid were collected from Alapalli forest region. Their botanical identity of plants were determined and authenticated from literature available in Department of Botany, N. S. Sc.& Arts College, Bhadrawati. The leaves of Arcocarpus heterophyllus, Acacia catechu, Gardenia gummifrea were thoroughly washed with water and dried under shade for about ten days. The dried plants sample were ground well into a fine powder in a mixture grinder. The powder was stored in a air sealed polyethylene bag at room temperature before extraction.

The major finding of this project work are phytochemical screening andBiological studies ofvarioussolventsextractsofplantnameArcocarpusheterophyllus,Acaciacatechu, Gardenia gummifera are shown in the table 1, 2,3

The qualitative analysis of extracts from leaves of Artocarpus Integra, Acacia catechu, Gardenia gummifera showed the presence of phytochemical constituents. The results are summarized in table 1 and 3. The following results indicate that, the leaves of plant investigated are rich in biologically active constituents. The results indicate that, the leaves of plant investigated are rich in biologically active constituents. All extracts have showed absence of anthraquinoneand and phytotannin.

Table 1: Phytochemocal screening of Artocapus Integra leaves(Phanus)

Chemical constituent	**WaterExtract**	**EthanolExtract**	**EthylAcetate Extract**	**MethylAcetate Extract**	**HexaneExtract**
Alkaloid	-	+	-	-	-
Tannin	+	+	+	+	-
Reducing Sugar	+	-	+	-	-
Saponine	-	-	+	-	-
Flavonid	+	+	-	+	+
Phlobatannins	-	-	-	-	-
Cardioglycisides	-	-	-	-	-
Anthaquinine	-	+	-	-	-
Terpeniods	+	+	+	+	-
Glycosides	-	+	-	-	-

Key words : (+)=Present , (-) = Absent

Table: 2: Phytochemocal screening of Gardenia Gummifera leaves (Dikamali)

Chemical constituent	Water Extract	Ethanol	Ethyl Acetate Extract	Methyl Acetate Extract	Hexane Extract
Alkaloid	+	+	-	-	-
Tannin	-	+	-	-	-
Reducing Sugar	+	-	-	-	+
Saponine	-	+	-	+	-
Flavonid	-	-	-	+	-
Phlobatannins	-	-	-	+	-
Cardioglycisides	-	-	+	-	-
Anthaquinine	-	-	-	-	-
Terpeniods	+	-	-	-	+
Glycosides	-	+	-	+	-

Table: 3: Phytochemocal screening of Acaciaa Catechu leaves (Khair)

Chemical constituent	Water Extract	Ethanol	Ethyl Acetate Extract	Methyl Acetate Extract	Hexane Extract
Alkaloid	+	-	+	-	-
Tannin	+	+	+	-	+
Reducing Sugar	-	+	+	-	-
Saponine	-	-	-	-	-
Flavonid	+	+	+	+	+
Phlobatannins	-	-	-	-	-
Cardioglycisides	-	+	-	-	-
Anthaquinine	-	-	-	-	-
Terpeniods	-	-	+	-	-
Glycosides	+	+	-	+	-