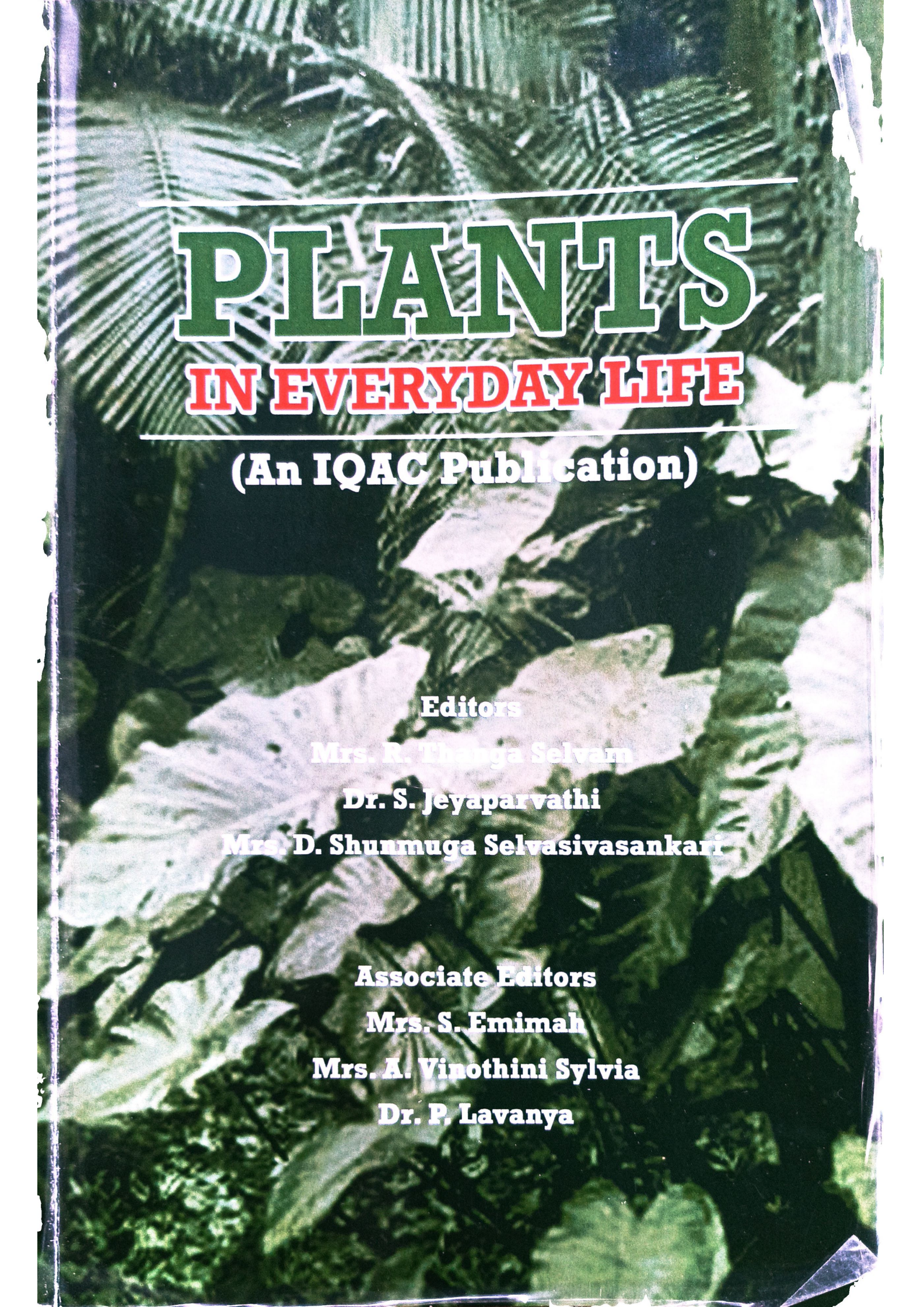




# **PLANTS**

## **IN EVERYDAY LIFE**

**(An IQAC Publication)**

### **Editors**

**Mrs. R. Thanga Selvam**

**Dr. S. Jeyaparvathi**

**Mrs. D. Shunmuga Selvasivasankari**

### **Associate Editors**

**Mrs. S. Emimah**

**Mrs. A. Vinothini Sylvia**

**Dr. P. Lavanya**



# **PLANTS**

## **IN EVERYDAY LIFE**

---

**(An IQAC Publication)**

### **Editors**

**Mrs. R. Thanga Selvam**

**Dr. S. Jeyaparvathi**

**Mrs. D. Shunmuga Selvasivasankari**

### **Associate Editors**

**Mrs. S. Emimah**

**Mrs. A. Vinothini Sylvia**

**Dr. P. Lavanya**

First Published: **August 2021**

ISBN : **978-81-923842-4-5**

Price : **Rs.675**

Published by: **Annammal Publications**

**Disclaimer:** The authors are solely responsible for the contents of the papers compiled in this volume. The publishers or editors do not take any responsibility for the same in any manner.

© **Annammal Publications**

**All rights reserved**

## Contents

| S. No. | Title of the Chapter                                                                   | Author's Name                                 | Page No. |
|--------|----------------------------------------------------------------------------------------|-----------------------------------------------|----------|
| 1      | Plants Enhance Adolescents Mental Health                                               | S. Rajamanickavasagan & Dr. A. Punitha Mary   | 1        |
| 2      | A Review of Ethnogynecological Plants used by the <i>Kanikkar</i> Tribe of South India | M. Priyadharshana, M. Girija & Dr. V. Vadivel | 8        |
| 3      | The Ethos of the Sacred Groves and the Tribes of the Nilgiris                          | Dr. S. Keerthy & Dr. D. Praveen Sam           | 18       |
| 4      | Antimicrobial activity at <i>Parthenium Hysterophorus</i> L. is an exotic weed         | P. Mathiarasi & A. Balasubramanian            | 36       |
| 5      | Traditional Medicinal Plants with Anticancer potential                                 | U. Thiripura Sundari & P. Shanthi             | 48       |
| 6      | Mental Health Benefits of Plants for Working Women                                     | Dr. C. Thanavathi                             | 65       |
| 7      | Impact of Plant Cuisine on Health                                                      | K. Shanthi Devi                               | 76       |
| 8      | Plants and its potentials in pandemic                                                  | U. Thiripura Sundari & S. Bavya               | 87       |
| 9      | Plants inside and outside home – A review                                              | Sheeba Menon                                  | 103      |
| 10     | Go With Greens: A Pearl of Life                                                        | P. Priya                                      | 122      |
| 11     | A Great History of Deforestation and Wild Life Resources                               | Dr. J. Maria Prema & A. Thiruvilanga Selvi    | 130      |



| S. No. | Title of the Chapter                                              | Author's Name                                         | Page No. |
|--------|-------------------------------------------------------------------|-------------------------------------------------------|----------|
| 12     | Mental Health of Human Being with Plants                          | Dr. A. Jeya Sudha & S. Karthiga                       | 136      |
| 13     | காய்கறிகள் மற்றும் பழங்களின் ஆரோக்கிய பயன்கள்                     | Dr. J. K. எஸ்நா<br>வின்சென்ட்<br>ஜெபக்குமார்          | 147      |
| 14     | Plants: Nature's Most Valuable Gift to Human Kind                 | Dr. J. Maria Prema & D. Sher Meena                    | 160      |
| 15     | பெருந்தொற்று நோய்களும் மருத்துவ தாவரங்களும்                       | Dr. J.K. எஸ்நா<br>வின்சென்ட்<br>ஜெபக்குமார்           | 169      |
| 16     | Medicinal Plants - A Cure for COVID                               | C. Girija & Dr. C. Santhi                             | 179      |
| 17     | Economic Importance of Poaceae                                    | Dr. R. Thangadurai                                    | 185      |
| 18     | Plants and Psychological Well Being                               | A. Jeya Kavitha                                       | 195      |
| 19     | God's Marvellous Creation in the Bible                            | T. Emima Rolanshia                                    | 201      |
| 20     | Influence of Plants on Enhancing the Psychological Wellbeing      | S. Swathi Lakshmi & Dr. Ponrathi                      | 212      |
| 21     | Medicinal Plants to fight against COVID 19                        | Dr. S. Josephine & K. Swetha                          | 228      |
| 22     | Our Plant! Our Life!                                              | Dr. J.S. Febila Josephin & Dr. J. Albert Prince Kumar | 236      |
| 23     | Green School Curriculum and Education for Sustainable Development | Dr. N. Mahalakshmi                                    | 247      |
| 24     | Plants - the Air Purifiers and Sustainable Gardening              | Dr. S. Andal                                          | 258      |

## **Medicinal Plants to Fight against Covid 19**

**Dr. S. Josephine**

Director of Physical Education

**K. Swetha**

Prospective Teacher

St. Ignatius College of Education (Autonomus),

Palayamkottai, Tamil Nadu.

### **Introduction**

Plants are mainly multicellular organisms, predominantly photosynthetic eukaryotes of the kingdom Plantae. Historically, plants were treated as one of two kingdoms including all living things that were not animals, and all algae and fungi were treated as plants. However. All current definitions of Plantae exclude the fungi and some algae, as well as the prokaryotes (the archaea and bacteria). By one definition, plants form the clade Viridiplantae (Latin name for “green plants”), a group that includes the flowering plants, conifers and other gymnosperms, ferns and their allies, hornworts, liverworts, mosses, and the green algae, but excludes the red and brown algae.

### **Plants growth and its habits:**

There are many varieties of plants around us. Few are terrestrial and aquatic plants, they appear with different types of roots, stem, leaves, flowers, fruits, seeds etc. therefore the classification plants is mainly based on several factors. And it can be further classified based on their height, tenderness of stem, branches and their life cycle.

In horticulture, the term growth habits refer to the plant's growth and its development or change in the plants height, shape and the kind of growth it undergoes. Growth habits have the function of ensuring the survival and adaptation of plants in various



habitats, consequently increasing the chances of successfully passing on the genes to the next generation.

Growth habit mainly refers to the appearance, shape, height, and form of growth of a plant species. A plant's growth habit develops from particular genetic patterns that determine growth.

### **Classification of plants:**

Based on the growth habit, plants are broadly categorized into three groups: herbs, shrubs, and trees.

#### **Herbs:**

They are short plants, with green and the delicate stem. Compared to other plants, these plants have very few branches and comes off easily from the soil. Grass, Mint, and wheat are a few examples of herbs.

#### **Shrubs:**

Shrubs are any sort of woody, perpetual, thick plants that branch into a few stems or trunks at the base and is littler than a tree. Shrubs are easy to spot, they are generally short and bushy and one does not see a significant part of the stem. Shrubs are otherwise called bushes. Bushes are broadly utilized for decoration.

#### **Trees:**

Trees are big and tall plants. They have very thick, woody and hard stems called the trunk. This single main stem or the trunk gives rise to many branches that bear leaves, flowers and fruits. Some trees are branchless like coconut tree; i.e., they have only one main stem which bears leaves, flowers, and fruits all by itself.

#### **Climbers:**

Climbers are much more advanced than creepers. Climbers have a very thin, long and weak stem which cannot stand upright,

but they can use external support to grow vertically and carry their weight. These types of plants use special structures called tendrils to climb.

**Creepers:**

Creepers, as the name suggests, are plants that creep on the ground. They have very fragile, long, thin stems that can neither stand erect nor support all its weight.

**Vascular plants:**

The vascular plants are a large group of terrestrial plants, which have specialized tissues for conducting water and nutrients to different parts of plants. All plants including the members of the Phylum Pteridophyta, Gymnosperms, and Angiosperms are classified as vascular plants.

**Gymnosperms:**

Gymnosperms refer to those plants which have naked seeds. Overall, there are about 600-650 different types of gymnosperm plants.

**Angiosperm:**

A seed is produced by flowering plants and is enclosed within an ovary. The lifecycle of these plants are seasonal and it has triploid tissue. Hardwood type and reproduction rely on animals, reproductive system present in flowers (unisexual or bisexual).

**Medicinal Plants to fight against Covid 19**

Immune systems in the body play an important role to fight against unhealthy environment and microbes such as virus, bacteria, fungus etc. and various numbers of other diseases. In order to boost the immune system the alternate source of Ayurvedic product and plant based herbal formulations which are



not only provided healthy environment to body but also boost the immune system without causing any side effects.

**Amukara (Winter cherry)**

Parts used: Root, Leaf, Alkali.

Therapeutic Uses: Fatigue, weakness, emaciation, tumors, dyspnoea, insomnia,

Pharmacological principle: Anti pyretic, Anti microbial, Antibacterial, Antioxidant, Immunomodulator, Antiinflammatory, Anti malarial, cardio protective, neuro protective, hepato protective, Adaptogenic, Anti diabetic.

**Siriyangai (Green Chiretta)**

Part used: Whole Plant

Therapeutic Uses: Fever, Respiratory infections, GIT infection, Sore throat, Variety of chronic infections

Pharmacological principle Antiviral, Antipyretic, Antiperiodic, Immune Enhancement, Hepatoprotective, Vermicidal, Hypoglycemic, Thrombolytic,.

**Tulasi (Sacred basil)**

Parts used: Leaf, root, seed

Therapeutic Uses: Intermittent fever, viral hepatitis, toxic disorders, dyspnoea, cough, worms

Pharmacological principle: Anti viral, Antifungal, Antibacterial, adaptogenic (anti stress), Hypoglycaemic, Anti spasmodic

**Tirunittu paccchilai (Sweet Basil)**

Parts used: Leaf, flower

Therapeutic Uses: Feverish illness (cold and influenza), lung complaints, poor digestion, nausea, insomnia, migraine, intestinal parasites.

Pharmacological principle: Anti viral, Anti microbial , Anti oxidant, Anti inflammatory, Health promoting activities. Inhibitory activity in HIV – 1, fungistatic, Anti allergenic, Cytotoxic, Anti spasmodic

### **Ilavangam (Cinnamom)**

Parts used: Stem bark

Therapeutic Uses: Rhinitis, cough, headache, indigestion, to improve taste, worm infestation, cardiac ailments

Pharmacological principle: Anti complement activity, anti allergic activity.

### **Ginger**

Parts used: Rhizome

Therapeutic Uses: Fever, dyspnoea, cough, heart ailments, reduced appetite, diarrhoea, bloated abdomen, bleeding disease, Anaemia.

Pharmacological principle: Anti bacterial, Anti histaminic, Anti oxidant, Anti inflammatory, Hypoglycaemic, Bio availability enhancer, Hypolipidemic

### **Indian Goose berry**

Parts used: Fruit pulp.

Therapeutic Uses: Diabetes, bleeding disorders, dysuria, ulcer, leucorrhoea.

Pharmacological principle: Anti bacterial, Anti microbial, Anti oxidant, Anti inflammatory, Hepatoprotective, Hypolipidemic, Anti atherosclerotic, Hypoglycaemic.

### **Nilavembu**

Parts used: Whole plant.

Therapeutic Uses: Fever, gouty arthritis, oedema, chronic liver diseases.



Pharmacological principle: Anti pyretic, Anti arthritic, Anti diabetic, Hepatoprotective.

### **Atimadhuram**

Parts used: Root

Therapeutic Uses: Improves strength, consumption, bleeding disorder, Rejuvenative, cardio tonic

Pharmacological principle: Anti pyretic, Anti inflammatory, Anti arthritis, Anti diuretic.

### **Vembu (Margosa tree)**

Parts used: Root bark, stem bark, leaves.

Therapeutic Uses: Fever, skin diseases, cough, alleviates toxicity, diabetes.

Pharmacological principle: Anti microbial, Immunostimulant, Anti inflammatory, Anti arthritic, Antidiabetic, improves cardio vascular activity

### **Adhathodai (Malabar nut)**

Parts used: Leaf, root, flower.

Therapeutic Uses: Fever, cough, dyspnoea, consumption, anaemia, bleeding disorder, diarrhea, skin diseases.

Pharmacological principle: Brochodilator activity, Haemostatic, advantages in attenuating the critical inflammatory stages of Covid 19

### **Kirambu (Clove)**

Parts used: Floral bud

Therapeutic Uses: Consumption, cough, dyspnoea, thirst, vomiting, bleeding disorders

Pharmacological principle: Anti viral, bactericidal, fungicidal, Anti inflammatory, Anti carcinogenic

### **Lemon grass**

Parts used: Whole plant

Therapeutic Uses: Fever, gout, rheumatism, skin disease

Pharmacological principle: Diaphoretic, stimulant, Anti oxidant, Anti rheumatic, blood purifier, carminative, diuretic, lithontriptic, emmenagogue

### **Conclusion**

Medicinal plants and natural products are still considered promising alternatives to prevent or treat several diseases. Since the outbreak of the COVID-19 pandemic in December 2019, various traditional herbal medicines have been used and resulted in positive health effects among COVID-19 patients,

Number of studies shows that a combination of natural products or herbal mixtures with validated anti-COVID-19 drugs may constitute a promising preventive and therapeutic alternative to be assessed.

### **Reference**

Dhawan et al., Medicinal and therapeutic potential of withanolides from *Withania somnifera* against COVID-19. *J. of Applied Pharmaceutical Science* 11(4):006-013. January 2021.

Arun Kumar et al., Molecular docking of natural compounds from tulsi (*Ocimum sanctum*) and neem (*Azadirachta indica*) against SARS-CoV-2 protein targets. *Research Square.com* 2020.

Rajesh K.Thimmulappa et., Antiviral and immunomodulatory activity of curcumin: A case for prophylactic therapy for COVID-19. *Heliyon*. Volume 7, Issue 2, February 2021, e06350

Sayeed Ahmad et al., Indian Medicinal Plants (*Inula racemosa* etc) and Formulations and Their Potential Against



COVID-19– Preclinical and Clinical Research. Front Pharmacol.v.11; 2020. PMC7962606

Vijay Kumar et al., Pharmacological perspectives of Ayurvedic herbs viz. *Alstonia scholaris* L., *Picrorhiza kurroa*, *Swertia chirata* and *Caesalpinia crista* against COVID- 19: A MiniReview of Organic Chem. (E-pub Ahead of Print). 2021.