

Project title	BIOCURE: A medicinal plant perspective for potential viral inhibitors for severe SARS-CoV2 acute infection
Principal Investigator	Dr. N. Senthilkumar
Co-Investigators	Smt. R. Sumathi
Project duration (Start & End)	3 years: 2021-2024
Objectives	<ul style="list-style-type: none"> • Isolation, identification and characterisation of antiviral compounds from the selected medicinal plants for SARS-CoV-2 • Testing the efficacy of antiviral compounds using molecular docking. • Standardisation of effective procedure to downstream the process for extraction of antiviral compounds. • Stakeholder's interaction with AVP, Kottakkal Ayurveda, Himalayas and representatives from Ayush, ICMR and NMPB for future strategies.
Progress	<ul style="list-style-type: none"> ❖ Surveys were conducted extensively in Western, North- Western, Cauvery Delta and Southern zones of Tamil Nādu and coastal zone of Karnataka. ❖ 8 plant samples were collected from 19 locations in 5 districts located at 4 agro climatic zones of Tamilnadu. ❖ Collected leaf and bark samples of <i>Wrightia tinctoria</i> from Periya Thadagam hill area, Kailasampalayam (Thiruchencode Tk) Topslip, Coimbatore and MTR, Tirunelveli. ❖ Stem samples of <i>Cissus quadrangularis</i> from Periya Thadagam hill area, Bellathi (Karamadai) and MTR, Tirunelveli; leaf and root samples of <i>Boerhavia diffusa</i> from Pollachi and leaf and root samples of <i>Cassia occidentalis</i> from three different beats at Thuvaipathi, Anaikatti reserved forest areas and Topslip. ❖ Leaf, bark and root samples of <i>Stereospermum suaveolens</i> from MTR, Tirunelveli; rhizome of <i>Asparagus racemosus</i> from MTR, Tirunelveli; leaf samples of <i>Volkameria inermis</i> from Pichavaram and Coimbatore. ❖ Collected samples were processed and subjected to aqueous and organic solvents (ethanol and Pet. ether) extractions. ❖ The <i>Wrightia tinctoria</i> leaf extract contains Flavonoids, Sterols, phenols, proteins and terpenoids in aqueous and ethanol extracts. ❖ Flavonoids, Sterols, Phenols, Carbohydrate and terpenoids were present in all three extracts of <i>Cassia occidentalis</i>. ❖ Flavonoids, Sterols, phenols and terpenoids were found in all three extracts and saponins were found exclusively in Pet.ether extracts of <i>Cissus quadrangularis</i>.
Funding agency	ICFRE